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# PIERS 2026 Suzhou

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Photonics & Electromagnetics Research Symposium  
also known as Progress In Electromagnetics Research Symposium

Preliminary Program

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July 27–31, 2026  
Suzhou, CHINA

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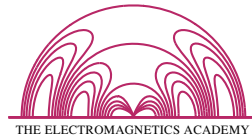
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## PROGRAM AT A GLANCE

## THE ELECTROMAGNETICS ACADEMY



The ElectroMagnetics Academy (TEMA), founded by the late Professor Jin Au Kong (1942–2008) at MIT on 3 July 1989, is a nonprofit educational institution registered in the Commonwealth of Massachusetts, USA. TEMA is governed by a Board of Directors and operated by an Executive Committee consisting of the President, Vice President, Director of Operations, and Chairs of Committees.

TEMA is committed to academic excellence and the advancement of research and applications in electromagnetic theory, while also supporting the educational objectives of the electromagnetics profession. With the vision of “Advancing Photonics and Electromagnetics Science and Technology Without Borders for the Benefit of Humanity”, TEMA aims to propel scientific and technological progress, nurture the next generation of leaders, and recognize those who contribute to advancements in photonics and electromagnetics.

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PIER Journals (PIER, PIER Photonics, PIER B, PIER C, PIER M, and PIER Letters) are a family of journals supported by the Photonics and Electromagnetics Research Symposium (PIERS). Progress In Electromagnetics Research (PIER), also known as Photonics & Electromagnetics Research.

These journals prioritize timely peer review to ensure rapid publication while keeping costs manageable for researchers from diverse background. Meanwhile, all content is freely accessible to readers worldwide for efficient dissemination of research.

The main PIER published by The Electromagnetic Academy (USA), is a highly selective multidisciplinary journal with a mission to publish ground-breaking, high-quality, and new research and invited reviews of significance across all areas of photonics and electromagnetics. The paper published in PIER should substantially advance a particular field, open a new area of research, or solve a long-standing challenge in an existing field. The impact factor of PIER is 9.3 in 2024 (real time).

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Giacomo Oliveri, University of Trento

Zhongxiang Shen, Yangtze Delta Region Academy of Beijing Institute of Technology

Sen Yan, Xi'an Jiaotong University

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Li Wei	Shihai Wei	Zhun Wei	Feng Wen
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Yue-De Yang	Yuting Yang	Hongxia Ye	Qiubo Ye
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Muhammad Zubair	Ying Zuo		

## **SYMPOSIUM VENUE**

The 2026 PhotonIcs & Electromagnetics Research Symposium, will be held in Suzhou from 27 to 31 July 2026, at the Suzhou Longemont Hotel.

Address: No. 111, Longshan Road, High-tech Zone, Suzhou City, Jiangsu Province, China.

## **REGISTRATION**

The PIERS technical sessions will begin at 13:00 on Monday, July 27, 2026. You may come to register during 8:30–18:30 on Monday, July 27, 2026, at the registration desks at the Suzhou Longemont Conference Center. Registration is also available from 8:00–18:00 on July 28–31, 2026.

The on-site registration fee is USD 730, and the reduced registration fee for a student is USD 490 (a valid student ID is required). If you have pre-registered and paid, your name badge and symposium program will be ready for you to pick up at the registration counter during the symposium. Please wear your name badge throughout the meeting. Access to the coffee break, interactive areas, and technical sessions will be prohibited if a name badge is not visible.

## **SPECIAL EVENTS**

### **Symposium Reception**

On Monday evening, July 27, 2026, all conference participants are invited to a welcome reception. The tickets are free and handed out on a first-come-first-served basis. Please make reservation in advance for the reception by June 25, 2026.

### **Symposium Banquet**

On Thursday evening, July 30, 2026, symposium banquet is planned for PIERS participants and their guests. A limited number of banquet tickets will be available. For all participants, the price is USD 60 per person. Please make reservation and pay in advance for the banquet by June 25, 2026.

## PIERS ONLINE

Information on PIERS 2026 Suzhou and future PIERS is posted at [www.piers.org](http://www.piers.org).

### GUIDELINE FOR PRESENTERS

#### Onsite Oral Presentations

- **LOAD and TEST Presentation Files in Advance:**

Onsite Oral Presenters must upload and test presentation files in the onsite PIERS OFFICE no later than 12 hours before the scheduled talk. Presenters are not allowed to detach the session computer and attach their own notebook/laptop to the LCD projector in session room.

- **Presentation Files Format:**

PDF, Power Point are recommended. Movies or animations in MPEG, Windows Media, and etc, should be tested in PIERS computer in PIERS OFFICE no later than half-day before the session.

Please pay attention that the size of most screens in session rooms is (2 m \* 1.5 m) 16 : 9.

- **USB Disk:**

Presentation files in USB disk are acceptable by onsite PIERS Computer.

- **Report to Session Chair:**

Onsite Presenters are required to report to their session chairs at least 10 minutes prior to the start of their session.

- **Talk Limit: 15 minutes (Onsite Oral Talk):**

All oral presentations, including questions and answers, should be less than the given minutes.

- **DO NOT Change Presentation Sequence:**

Session Chairs, please be present in the session room at least 15 minutes before the start of the session and must strictly observe the starting time and time limit of each paper and refrain from changing paper presentation sequence.

- **NO Picture Request:**

When such a request is made by the presenter, the session chair and session helpers will do their best to ensure that no pictures will be taken at the presentation.

#### Onsite Poster Presentations

- One panel will be available for each poster. The panel size may be different for each PIERS.
- PIERS 2026 Suzhou Posters: A0 format (Width: 841 mm x Height: 1189 mm) is strongly suggested.
- All presenters are required to mount their papers one hour before the session and remove them at the end of their sessions. All poster presenters are suggested to be present at least during the coffee break time 10:30-10:50 and 15:40-16:00.
- Presenters should post time slots of their presence on the panel and be present for interactive questions at the given time.

## PIERS 2026 SUZHOU ORGANIZERS AND SPONSORS

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### Sponsored by:

- Nanjing University
- The Electromagnetics Academy at Zhejiang University

### Technically co-sponsored by:

- IEEE Geoscience and Remote Sensing Society (IEEE GRSS)
- IEEE Antennas and Propagation Society (IEEE AP-S)
- IEEE Photonics Society
- The Electromagnetics Academy



### Exhibitors:

- AIP Publishing
- Shenzhen Linbou NearField Technology Co., Ltd.



## MAP OF CONFERENCE SITE

## GENERAL INFORMATION

### LANGUAGE

The official language for the Symposium is English.

### CURRENCY AND CREDIT CARDS

Chinese currency is CNY with its monetary unit CNY (Yuan). The exchange rate is 1 USD for about 7.0 CNY. Credit cards and cash are acceptable for payments. International credit cards are acceptable in almost all shops, restaurants etc..

### TAX AND TIP

Tipping is by no means a traditional Chinese custom. Please help keep the good custom and do not tip a waiter/waitress or a taxi driver and other persons who provides regular service. Take back any change that is rightfully yours. All advertised prices include tax. Bargaining is quite common on buying merchandise especially from Street Markets.

### TAXI

Usually, a taxi is available along the roadsides, while you wave for it. However, on main streets it is only available at taxi stops or in front of a hotel.

### BUSINESS OPENING HOURS

- **Bank and Post Office**  
Opening hours: usually 09:00 – 17:00, from Monday to Friday.
- **Government Office**  
Opening hours: usually 08:00 – 17:00, from Monday to Friday.
- **Store**  
Operating hours: usually 10:00 – 21:00, but the large shopping center serves till 22:00, from Monday to Sunday.

### ELECTRICITY

In China, the standard outlets provide AC of 220 V/50 Hz.

## PIERS 2026 SUZHOU TECHNICAL PROGRAM

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### Session 0P1

#### Bioinspired Optics & Photonics

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**Monday PM, July 27, 2026**

**Room 1 - CR 1**

Organized by Young Min Song, Hyeon-Ho Jeong

Chaired by Young Min Song, Hyeon-Ho Jeong

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00:00 Structural Colors with Scalable Disordered Plasmonics  
Invited

*Hyeon-Ho Jeong (Gwangju Institute of Science & Technology);*

00:00 Plasmonic Junctions: Seeing Dynamics of Molecules and  
Invited Materials

*Ivana Qianqi Lin (University of Cambridge);*

00:00 Active Structural Colors Including White and Black  
Invited with Electrochemical Redox Reactions

*Jerome Kartham Hyun (Ewha Womans University);*

00:00 Biomimetic Mini-cameras Based on Artificial Compound  
Invited Eyes

*Xuming Zhang (The Hong Kong Polytechnic University);*

00:00 In-sensor Computing for AI-native Robotic Vision  
Invited

*Changsoon Choi (School of Electronic and Electrical Engineering);*

00:00 Computational Bio-inspired Vision: Integrating Neuro-  
Invited morphic Compound Eyes with Single-pixel Imaging for High-speed Motion Analysis

*Mengchao Ma (Hefei University of Technology);*

00:00 Planar Optical Nanocavities for Engineered Structural  
Invited Color

*Qiaoqiang Gan (King Abdullah University of Science and Technology (KAUST));*

00:00 Color Gamut Expansion through Wavelength-selective  
Invited Polarization Modulation in Chiral Liquid Crystals

*Hyeon Park (Korea Advanced Institute of Science and Technology); Dong Ki Yoon (Korea Advanced Institute of Science and Technology);*

00:00 Inverse Design Optimization of Structural Colored Planar Structures for Scalable Photovoltaic Devices

*Catarina G. Ferreira (University of Southern Denmark); Line Jelver (University of Southern Denmark); Ananta Paul (University of Southern Denmark); Jani Lamminaho (University of Southern Denmark); N. Asger Mortensen (University of Southern Denmark); Joel D. Cox (University of Southern Denmark); Morten Madsen (University of Southern Denmark);*

00:00 Inspiration from Coloration and Cooling in Nature  
Invited

*Young Min Song (Korea Advanced Institute of Science & Technology (KAIST));*

00:00 Photoprotective Foliage-inspired Hydrogel Enabling Coupled Latent and Radiative Thermal Regulation

*Hyung Rae Kim (Korea Advanced Institute of Science and Technology); Young Min Song (Korea Advanced Institute of Science & Technology (KAIST));*

00:00 Design of Dual-sided Radiative Cooling Glass for Enclosure Cooling Through Vertically-installed Windows

*Hyunkyung Kwak (Korea Advanced Institute of Science and Technology (KAIST)); Young Min Song (Korea Advanced Institute of Science & Technology (KAIST));*

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### Session 0P2a

#### Silicon-based Hybrid and Heterogeneous Integrated Light Source

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**Monday PM, July 27, 2026**

**Room 2 - CR 2**

Organized by Yue-De Yang, Chaoyuan Jin

Chaired by Yue-De Yang

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00:00 Slab-coupled Optical Waveguide DFB Lasers for Hybrid  
Invited Photonic Integration

*E. Z. Wang (Institute of Semiconductors, Chinese Academy of Sciences); Pingping Qiu (Institute of Semiconductors, Chinese Academy of Sciences); G. Cheng (Institute of Semiconductors, Chinese Academy of Sciences); Hengjie Zhou (Institute of Semiconductors, Chinese Academy of Sciences); Qihua Wang (Institute of Semiconductors, Chinese Academy of Sciences); Ruikang Zhang (Institute of Semiconductors, Chinese Academy of Sciences); Qiang Kan (Institute of Semiconductors, Chinese Academy of Sciences);*

- 00:00 Heterogeneously Integrated Semiconductor Optical  
Invited Amplifier on 220 nm-silicon-on-insulator Platform: A  
Demonstration and Potential Applications  
*Yu Zhang (Huazhong University of Science and Technol-  
ogy);*
- 00:00 Silicon-based Optical Matrix Integration for High Radix  
Invited Network Interconnections  
*Chenhui Li (Zhejiang University);*
- 00:00 Hybrid-Integrated Ultra-Narrow Linewidth Laser Based  
Invited on High-Q Silicon Nitride Double-Archimedean Spiral  
Resonator  
*Jin-Long Xiao (Institute of Semiconductors, Chinese  
Academy of Sciences);*
- 00:00 Multicolor Soliton Microcombs in an Integrated Kerr Mi-  
Invited croresonator  
*Haizhong Weng (Trinity College Dublin);*
- 00:00 The Generation of Microcombs in the High-Q Lithium  
Invited Niobate Microresonators  
*Shuai Wan (University of Science and Technology of  
China); Pi-Yu Wang (University of Science and Tech-  
nology of China); L. Ming (University of Science and  
Technology of China); Fang Bo (Nankai University);  
Chun-Hua Dong (University of Science and Technology  
of China);*
- 00:00 Chip-integrated Silicon-based Soliton Optical Frequency  
Invited Comb with High Conversion Efficiency  
*Yong-Zhen Huang (Institute of Semiconductors, Chi-  
nese Academy of Sciences); Wen-Qi Shi (Institute of  
Semiconductors, Chinese Academy of Sciences); Yue-  
De Yang (Institute of Semiconductors, Chinese Academy  
of Sciences);*
- 00:00 Exploration of Hybrid Integrated Silicon-based Active  
III-V Devices  
*Daibao Hou (Zhejiang University); Shuning Ding (Zhe-  
jiang University); Yuntian Yao (Zhejiang University);  
Qiyou Wu (Zhejiang University); Yonghong Hu (Zhe-  
jiang Laychip Optoelectronics Technology Co., Ltd);  
Wei Pan (Zhejiang Laychip Optoelectronics Technology  
Co., Ltd); Chao Huang (Zhejiang Laychip Optoelectron-  
ics Technology Co., Ltd); Huihui Zhu (Zhejiang Univer-  
sity); Chenhui Li (Zhejiang University); Chaoyuan Jin  
(Zhejiang University);*
- 00:00 Deep Photonic Reservoir Computing Processor and Ap-  
Invited plications  
*Cheng Wang (ShanghaiTech University);*
- 00:00 Multilayer Perceptron Neural Network for the On-  
demand Inverse Design of Photonic MRR Array Pro-  
cessing Cores  
*Hengjia Dong (National Innovation Institute of Defense  
Technology); Jie You (National Innovation Institute of  
Defense Technology); Junhu Zhou (National Innovation  
Institute of Defense Technology); Xin Zheng (National  
Innovation Institute of Defense Technology);*
- 00:00 Monolithic SiN-enabled Silicon Photonic Receiver  
for Polarization-insensitive, Athermal  $16 \times 200$  Gbps  
CWDM Optical Interconnects  
*Yan Zhang (Zhejiang Lab); Zhuo Chen (Zhejiang Lab);  
Qingyang Du (Zhejiang Lab); Bigeng Chen (Zhejiang  
Lab); Shaoliang Yu (Zhejiang Lab);*
- 00:00 Inverse-designed Lithium Niobate Photonic Devices for  
Invited High-density Chip Integration  
*Xu Han (Hefei University of Technology); Hu Jiang  
(Hefei University of Technology);*
- 00:00 CMOS-compatible Integrated AlScN Electro-optic Mi-  
Invited croresonating Modulators  
*Ting Hu (Shanghai University); Tianqi Xu (Shanghai  
University);*
- 00:00 Photonic In-memory Computing  
Invited  
*Zengguang Cheng (Fudan University);*
- 00:00 Algorithms for Photonics Integrated Circuits: Optimiza-  
Invited tion and Implementation  
*Enge Zhang (Beijing University of Posts and Telecom-  
munications); Yifu Xu (Beijing University of Posts  
and Telecommunications); Donghao Li (Beijing Univer-  
sity of Posts and Telecommunications); Songyang Li  
(Beijing University of Posts and Telecommunications);  
Zhengyang Li (Beijing University of Posts and Telecom-  
munications); Kai Wang (Beijing University of Posts  
and Telecommunications); Lei Zhang (Beijing Univer-  
sity of Posts and Telecommunications);*

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### Session 0P2b

#### Integrated Photonic Devices for Optical Signal Processing and Computing

Monday PM, July 27, 2026

Room 2 - CR 2

Organized by Ciyuan Qiu

Chaired by Ciyuan Qiu

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- 00:00 Mode-locked Lasers with Hybrid Integration of III-V  
Invited Semiconductor Gain and Lithium Niobate Modulator  
*Kan Wu (Shanghai Jiao Tong University);*

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### Session 0P3a

#### Engineering Acoustic Resonances for Advanced Wave Control

Monday PM, July 27, 2026

Room 3 - CR 3

Organized by Xianchen Xu, Sichao Qu

Chaired by Xianchen Xu, Sichao Qu

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- 00:00 Causality-locked Optimal Scattering and Emission in  
Invited Acoustic Metamaterials  
*Sichao Qu (The University of Hong Kong); Zixun Ge  
(The University of Hong Kong); Min Yang (Acoustic  
Metamaterials Group Ltd.); Erqian Dong (The Univer-  
sity of Hong Kong); Nicholas Xuanlai Fang (The Uni-  
versity of Hong Kong);*

- 00:00 **Broadband and Wide-angle Focusing via an Ultracompact Reconfigurable Acoustic Grating**  
Invited  
*Liangfen Du (The Hong Kong Polytechnic University); Zheng Fan (Nanyang Technological University);*
- 00:00 **Coupled-mode Surface Acoustic Wave (X-SAW) Resonators and RF Filters for 6G cmWave and Wi-Fi 8 Communications**  
Invited  
*Z. Zhang (University of Science and Technology of China); Z. Dai (University of Science and Technology of China); Chengjie Zuo (University of Science and Technology of China);*
- 00:00 **Searching for Topological Semi-complete Bandgap in Elastic Truss Lattices**  
*Yiran Hao (Hunan University of Technology and Business); Dong Liu (Hunan University of Technology and Business); Jensen Li (Hong Kong University of Science and Technology); Biao Yang (National University of Defence Technology);*
- 00:00 **Metamaterial Acoustic Impedance Tube for Low-frequency Underwater Acoustic Testing**  
Invited  
*Nan Gao (Zhejiang University);*
- 00:00 **Space-time Modulated Metamaterial Cavity for Adaptive Sensing**  
Invited  
*Jinbo Yuan (Beijing Institute of Technology); Lei Zhang (Beijing Institute of Technology); Ruicheng Wang (Beijing Institute of Technology); Guoliang Huang (Peking University); Gengkai Hu (Beijing Institute of Technology); Xiaoming Zhou (Beijing Institute of Technology); Xianchen Xu (Beijing Institution of Technology (Zhuhai));*
- 00:00 **A Level Set Optimization Method with Fabrication-friendly Topology**  
*Xiao Meng (Tongji University); Wenxin Hao (Tongji University); Junhe Zhou (Tongji University);*
- 00:00 **Semiconductor Microlasers Based on Deformed High-Q Resonators**  
*Natalia Kryzhanovskaya (HSE University); Eduard I. Moiseev (HSE University); Anna A. Obraztsova (HSE University); Igor S. Fedosov (HSE University); Konstantin A. Ivanov (HSE University); Ivan S. Makhov (HSE University); Antonina A. Pivovarova (Ioffe Institute); Natalya D. Ilyinskaya (Ioffe Institute); Alexey E. Zhukov (HSE University);*
- 00:00 **Morphology-driven Optical Properties of Vertically Aligned MoS<sub>2</sub>: Tunable Photoluminescence and Absorption**  
*Polina G. Uymina (Moscow Institute of Physics and Technology); M. A. Anikina (Moscow Institute of Physics and Technology); A. B. Speshilova (Peter the Great Saint Petersburg Polytechnic University); A. D. Bolshakov (Moscow Institute of Physics and Technology);*
- 00:00 **Second-harmonic Generation Modulation of 2D Semiconductors and Their Heterostructures**  
Invited  
*Haitao Chen (National University of Defense Technology);*
- 00:00 **The Interfacial Thermal Conductance of Graphene/hBN Heterojunction Devices**  
Invited  
*Fang Luo (National University of Defense Technology); Zhilong Shang (National University of Defense Technology);*
- 00:00 **All-solid Passive Organic Optical Limiter via Coordination-bond Anchoring Strategy**  
*Dan Chen (National University of Defense Technology); Yuang Chen (National University of Defense Technology); Yunming Wang (Huazhong University of Science and Technology); Qingwei Zhou (National University of Defense Technology); Fang Luo (National University of Defense Technology); Jinbao Jiang (National University of Defense Technology); Chunrui Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Fan Wu (National University of Defense Technology); Chu-Cai Guo (National University of Defense Technology); Zhihong Zhu (National University of Defense Technology);*

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**Session 0P3b**
**Optoelectronic Materials and Devices**


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**Monday PM, July 27, 2026**
**Room 3 - CR 3**

Organized by Fang Luo

 Chaired by Fang Luo
 

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- 00:00 **Europium-doped GaN towards High-color-purity Red Light Emitters**  
*Shizhao Fan (Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS));*
- 00:00 **Recent Breakthroughs in Photon and Carrier Management for Perovskite/Silicon Tandem Cells**  
*Zhiqin Ying (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences (CAS)); Jichun Ye (Ningbo Institute of Material Technology and Engineering, Chinese Academy of Sciences);*
- 00:00 **Feasibility Study of Using LEDs in End-side Pumping Scheme for Solid-state Lasers**  
*Feruza Shermatova (Institute of Ion-Plasma and Laser Technologies); Shermakhamat Payziyev (Institute of Ion-Plasma and Laser Technologies); Abdugappar Kasimov (Institute of Ion-Plasma and Laser Technologies);*

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**Session 0P4a**
**Electromagnetic Theory, Scattering, EMC**


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**Monday PM, July 27, 2026**
**Room 4 - CR 8**


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00:00 Electromagnetic Characterization of PTFE in the S-band Using the NRW Method in a Non-standard Waveguide

*Alejandro Trejo León (Sección de Estudios de Posgrado e Investigación); Fabiola Martínez-Zúñiga (Instituto Politécnico Nacional); Jorge Roberto Sosa-Pedroza (Instituto Politécnico Nacional);*

00:00 Incompatibility between Superposition Law and Energy Conservation in the Wave Regime

*Bingli Jiao (Peking University);*

00:00 Operator Approach for Calculation of the Dyadic Green's Function

*A. Arlouski (Belarussian State University); Andrey V. Novitsky (Belarusian State University);*

00:00 Deep Learning Framework for Broadband Electromagnetic Parameter Retrieval of Honeycomb Materials

*Fan Zhang (Hubei University of Technology); Jiang Liu (Hubei University of Technology); Xin Chen (Wuchang University of Technology); Bokun He (Hubei University of Technology); Dinfeng Yu (Wuhan Institute of Technology); Minghu Wu (Hubei University of Technology); Yunhua Zhang (Wuchang University of Technology);*

00:00 Differentiable Shooting and Bouncing Rays for Gradient-based Electromagnetic Scattering Analysis

*Sen Liu (Beijing Institute of Technology); Xiao-Min Pan (Beijing Institute of Technology); Yunchuan Wang (Beijing Institute of Technology); Chengtao Zhao (Beijing Institute of Technology); Jiyuan Wang (Beijing Institute of Technology);*

00:00 Electromagnetic Scattering by an Impedance Elliptic Cylinder Embedded in a Metafilm

*Mohamed A. Salem (Sonoma State University);*

00:00 Experimental Study on Pulse Interference in Communications Systems using the Semi-physical Simulation System

*Rongwei Zhang (Zhejiang University); Kai Mei (Northwest Institute of Nuclear Technology); Hailong Kong (Northwest Institute of Nuclear Technology); Kai Qiang (Northwest Institute of Nuclear Technology); Shufen He (Northwest Institute of Nuclear Technology);*

00:00 Breaking the Rozanov Limit of Thin Absorbers Using Spatiotemporal Modulation of Surface Impedance

*Kaiqi Xiao (Harbin Engineering University); Xuchen Wang (Harbin Engineering University);*

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**Session 0P4b**  
**Advanced Mathematical and Computational**  
**Methods in Electromagnetic Theory and Their**  
**Applications**

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**Monday PM, July 27, 2026**

**Room 4 - CR 8**

Organized by Georgi Nikolov Georgiev, Mariana Nikolova Georgieva-Grosse

Chaired by Mariana Nikolova Georgieva-Grosse

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00:00 An Infinite Wave Propagation Speed Attainable Independently of Source Functions: Part (I)

*Namik Yener (Dumlupinar Mahallesi, Ataturk Cad., Gozde Park Evleri No. 30B-10, Pendik);*

00:00 Soliton Interactions in Maxwell-Bloch System

*Sitai Li (Xiamen University);*

00:00 Features of the Resonant Interaction of a Transverse-electric Wave with a Modulation Wave of a Magnetodielectric Plate in a Waveguide

*Eduard A. Gevorkyan (Plekhanov Russian Economic University);*

00:00 A Theorem on the Dr. Mariana N. Georgieva's Complex  $\mathbf{M}_1(\mathbf{p}, \mathbf{c}, \mathbf{n})$  Numbers

*Georgi Nikolov Georgiev (Consulting and Researcher in Physics, Mathematics and Computer Sciences); Mariana Nikolova Georgieva-Grosse (Consulting and Researcher in Physics, Mathematics and Computer Sciences);*

00:00 Supporting Quadric Method for Designing Diffractive and Refractive Optical Elements in the Scalar Diffraction Theory Framework

*Leonid L. Doskolovich (Image Processing Systems Institute, NRC "Kurchatov Institute"); D. V. Soshnikov (Image Processing Systems Institute, NRC "Kurchatov Institute"); E. V. Byzov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Artem I. Kashapov (Image Processing Systems Institute, NRC "Kurchatov Institute" and Samara National Research University); Evgeni A. Bezus (Image Processing Systems Institute, NRC "Kurchatov Institute"); Dmitry A. Bykov (Image Processing Systems Institute, NRC "Kurchatov Institute");*

00:00 Synthesis of an Isotropic Structure with a Passive Complex Surface Impedance

*Tatyana Yurievna Privalova (Southern Federal University);*

00:00 Impedance Model of a Three-dimensional Blackbody

*Yury Vladimirovich Yukhanov (Southern Federal University); Tatyana Yurievna Privalova (Southern Federal University);*

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**Session 0P5a**  
**Optical Wireless Communication**

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**Monday PM, July 27, 2026**

**Room 5 - CR 9**

Organized by Chao Shen, Chao Fei

Chaired by Chao Shen, Chao Fei

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00:00 Development of High-efficiency AlGaIn Deep UV LEDs and Application in UV Communication

Invited *Wei Guo (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences);*

00:00 Experimental Characterization of a Green Laser Diode for Visible Light Communication

*Yuhan Xiong (Fudan University); Zhenqian Gu (Fudan University); Chao Shen (Fudan University);*

00:00 High-fidelity Frequency Response Prediction of GaN-based Laser Diodes Directly from Epitaxial Architectures Using Deep Neural Networks

Invited *Yuheng Zou (Fudan University); Bohan Xiao (Fudan University); Chao Shen (Fudan University);*

00:00 Real Time High Speed Underwater Optical Wireless Communication System Based on G.hn and Wide-angle White-light Laser

Invited *Junyang Zheng (Fudan University); Junxi Li (Fudan University); Xijie Zhou (Fudan University); Zixuan Zhou (Fudan University); Minghao Huang (Fudan University); Zengxi Li (Fudan University); Fangnian Du (Fudan University); Chao Shen (Fudan University);*

00:00 High Speed Tricolor Laser Diodes Based White Visible Light Communication System Employing an Adaptive QAM-OFDM Modulation

Invited *Lihong Jiang (); Tianyi Zhang (Zhejiang University); Chao Fei (Zhejiang University); Yitong Xie (Zhejiang University); Fei Zhang (Zhejiang University); Junwei Zhang (); Jiahao Tian (Zhejiang University); Guowu Zhang (Zhejiang University); Gaoxuan Wang (NingboTech University); Xiaojian Hong (Zhejiang University); Sailing He (Royal Institute of Technology & Zhejiang University);*

00:00 Recognition of Synthesized Vector Beams with Opposite in Sign OAM and Different Polarization Structure from Intensity Distributions in Turbulent Atmosphere by Neural Networks

*Egor Andreevich Bogach (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Egor V. Adamov (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Vadim V. Dudorov (V. E. Zuev Institute of Atmospheric Optics, SB RAS); Valeriy V. Kolosov (V. E. Zuev Institute of Atmospheric Optics, SB RAS);*

00:00 Omnidirectional Optical Base Stations Enabling Underwater Wireless Optical Cellular Networks

Invited *Jiaming Lin (Tsinghua University); Lu Wang (Tsinghua University); Shuanghe Liu (Tsinghua University); Tongzheng Sun (Tsinghua University); Yuhan Dong (Tsinghua University);*

00:00 Integrating Center-based Detection and Lane-aware Transformers for Robust Trajectory Prediction in Autonomous Driving

*Tongzheng Sun (Tsinghua University); Shuanghe Liu (Tsinghua University); Yuhan Dong (Tsinghua University);*

00:00 Low-latency Integrated Visible Light Communication and Sensing Network for Real-time Interactive Theatrical Storytelling

Invited *Zetao Wu (Chinese National Academy of Arts);*

00:00 Cooperative State Estimation via Optical Motion Capture and Free-space Optical Feedback for Embodied Narratives in Future Theater

Invited *Zetao Wu (Chinese National Academy of Arts);*

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**Session 0P5b**

**From RF to Optical: The Next Generation of Wave Propagation**

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**Monday PM, July 27, 2026**

**Room 5 - CR 9**

Organized by Hasan Tahir Abbas, Muhammad Zubair

Chaired by Hasan Tahir Abbas

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00:00 Understanding the Role of Temporal Dynamics in Fluorescence-detected Mid-infrared Photothermal Microscopy

*Sahil Sharma (Indian Institute of Technology Delhi); Joby Joseph (Indian Institute of Technology); Balpreet Singh Ahluwalia (UiT — The Arctic University of Norway); Muhammad Ali Imran (University of Glasgow); Douglas J. Paul (University of Glasgow); Kevin Gallacher (University of Glasgow); Qammer H. Abbasi (University of Glasgow); Jonathan Taylor (University of Glasgow); Hasan Tahir Abbas (University of Glasgow);*

00:00 Ultrahigh-frequency Surface Acoustic Waves Generation through Laser Pulse Excited Gold Nanoparticles and Its Observation

*Muhammad Usman (Nanjing University of Science and Technology); Jichuan Xiong (Nanjing University of Science and Technology);*

00:00 Compact and High-bandwidth Slow-light Thin-film Lithium Niobate Modulator with Cosine Apodization

*Caoyuan Guo (University of Electronic Science and Technology of China); Ya Fei Wu (University of Electronic Science and Technology of China (UESTC));*

00:00 Over-the-Air Calibration of 6G Phased Arrays Challenges and Potential Solutions

*Fengchun Zhang (Aalborg University); Wei Fan (South-east University);*

00:00 Computational Design of 2D Semiconductors for Future Electronics, Optoelectronics and Photonics  
*Tong Su (Singapore University of Technology and Design); Sanchali Mitra (Singapore University of Technology and Design); Shibo Fang (Singapore University of Technology and Design); Xingyue Yang (Peking University); Zongmeng Yang (Peking University); Yee Sin Ang (Singapore University of Technology and Design (SUTD));*

00:00 Dual Band Metamaterial Absorber Using Lead Glass for Electromagnetic Interference Shielding (EMI) in X and Ku-band  
*Aneesa Razaq (Ghulam Ishaq Khan Institute of Engineering Sciences and Technology); Arbab Abdur Rahim (GIK Institute of Engineering Sciences and Technology); Shah Faisal (GIK Institute of Engineering Sciences and Technology); Tahseen Amin Khan Qasuria (International Islamic University Islamabad);*

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**Session 0P6a**  
**Advances in Biophotonics 1**

**Monday PM, July 27, 2026**

**Room 6 - CR 10**

Organized by Keisuke Goda, Qiu Qiang Zhan

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00:00 Numerical Investigation of Advanced PCF-SPR Biosensor with Confinement Loss Optimization for Cancer Detection  
*Prateek Shukla (Vellore Institute of Technology); Shashank Mundra (Vellore Institute of Technology); N. Sangeetha (Vellore Institute of Technology);*

00:00 AI-driven Multimodal Biophotonics for Precision Diagnostics and Digital Medicine  
*Jürgen Popp (Friedrich Schiller University Jena);*

00:00 Optical Micromanipulation: From in vitro Trapping to in vivo Actuation  
*Hongbao Xin (Jinan University);*

00:00 Resonance-engineered Raman Spectroscopy for High-sensitivity Biochemical Sensing  
*Ting-Hui Xiao (Zhengzhou University);*

00:00 Advanced in Non-contact Optical Coherence Elastography  
*Yirui Zhu (Nanchang Hangkong University); Jiulin Shi (Nanchang Hangkong University); Xingdao He (Nanchang Hangkong University);*

00:00 Structural Regulation of Carbon Dots and Their Application in Organelle Imaging  
*Shuang E (Dalian Minzu University); Zhao Gao (Dalian Minzu University); Shu Biao Zhang (Dalian Minzu University); Sailing He (Royal Institute of Technology & Zhejiang University);*

00:00 Photoacoustic and Light-speed Imaging

Keynote

*Lihong Wang (California Institute of Technology);*

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**Session 0P6b**  
**Advances in Biophotonics 2**

**Monday PM, July 27, 2026**

**Room 6 - CR 10**

Organized by Fan Wang, Xiaolan Zhong

Chaired by Fan Wang, Xiaolan Zhong

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00:00 Mid-infrared Upconversion Detection with Si Detector  
 Invited at Room-temperature

*Xinyang Yu (University of Technology Sydney); Yin Huang (University of Technology Sydney); Karin Yamamura (University of Technology Sydney); Guochen Bao (University of Technology Sydney); Fan Wang (Beihang University); Igor Aharonovich (University of Technology Sydney); Chaochao Chen (University of Technology Sydney);*

00:00 Gradient Boosting Decision Trees Enable High-quality Super-resolution Microscopic Imaging Screening  
*Zhiping Zeng (Fuzhou University); Xiyang Ren (Fuzhou University); Xinyi Chen (Fuzhou University); Bqing Xu (Fuzhou University);*

00:00 Optogenetically Enhanced Physical Reservoir Computing with In Vitro Neural Networks

*Lili Gui (Beijing University of Posts and Telecommunications); Yin Deng (Beijing University of Posts and Telecommunications); Kesen Shi (Beijing University of Posts and Telecommunications); Longze Sha (Institute of Basic Medicine, Chinese Academy of Medical Sciences); Qi Xu (Institute of Basic Medicine, Chinese Academy of Medical Sciences); Kun Xu (Beijing University of Posts and Telecommunications);*

00:00 High-fidelity Imaging of Living Brains and Eyes

Invited

*Qinrong Zhang (City University of Hong Kong);*

00:00 Ultrarapid Deep 3D Histology with Cleared Stimulated Raman Imaging and Unsupervised Learning

*Zhijie Liu (Fudan University); Yingying Li (Fudan University); Lingchao Chen (Fudan University); Minbiao Ji (Fudan University); Licue Shi (Fudan University);*

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**Session 0P7a**  
**Short-Oral Presentations for Best Student Presentation Awards Competition - Part 1**

**Monday PM, July 27, 2026**

**Room 7 - VIP R3**

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- 00:00 Interaction-controlled Magnetotransport in 2D Massless-Massive Fermion Mixtures  
*Yuping Huang (Southern University of Science and Technology); Vadim Kovalev (Siberian Branch of RAS); Oleg V. Kibis (Novosibirsk State Technical University); Ivan G. Savenko (Guangdong Technion-Israel Institute of Technology (GTIIT));*
- 00:00 PyBEMLab: A GPU-accelerated Boundary Element Method Toolbox for Plasmonic Simulation of Composite Nanostructured Electromagnetic Materials  
*Bozhen Zhang (Xinjiang Normal University); Paerhati-jiang Tuersun (Xinjiang Normal University);*
- 00:00 Electromagnetic Parasitic Extraction and Structural Self-equalization for 3D Memristor Crossbar Arrays  
*Jiarui Qiu (Zhejiang University); Hanzhi Ma (Zhejiang University);*
- 00:00 Thermal Superscattering: A Thermotic Analogue of Electromagnetic Superscattering Based on Active Metasurfaces  
*Yawen Qi (Taiyuan University of Technology); Xiaofan Ji (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology); Qike Xie (Taiyuan University of Technology); Fei Sun (Taiyuan University of Technology);*
- 00:00 Multispectral Thermal Imaging Enabled by Dispersion-engineered Metalens  
*Chuan Guo (University of Electronic Science and Technology of China); Weiming Zhu (University of Electronic Science and Technology of China); Shaowei He (University of Electronic Science and Technology of China);*
- 00:00 A Low-profile Metasurface Integrating Bandpass Filtering and Linear-to-circular Polarization Conversion  
*Xiao Jie Lu (Tongji University); Zhen Wang (Tongji University); Xiao Yu Li (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 Study on the Temperature Robustness of Metasurface Holographic Displays  
*Long Yue (Huazhong University of Science and Technology); Fan Sun (Huazhong University of Science and Technology); Yinglun Xu (Huazhong University of Science and Technology); Zhilin Teng (Huazhong University of Science and Technology); Hui Gao (Huazhong University of Science and Technology);*
- 00:00 Tunable Optical Properties of 2DMs/SiO<sub>2</sub> Heterostructure with Nanoindented Metasurface  
*Gaoyuan Wang (Fudan University); Zhihao Cai (Fudan University); Mengyuan Tang (Fudan University); Hongyu Tang (Fudan University);*
- 00:00 Multifunctional 2-bit VO<sub>2</sub>-based Reconfigurable Terahertz Metasurface for Beam Steering and OAM Generation  
*Yijie Zhang (Fudan University); Wenfeng Yao (Fudan University); Mengxuan Zhuang (Fudan University); Fuling Ni (Fudan University); Zijia Chen (Fudan University); Guo-Min Yang (Fudan University);*
- 00:00 Optical Meron Lattices Generated from Quasi-symmetry Groups  
*Guangfeng Wang (Shanghai Jiao Tong University); Bo Wang (Shanghai Jiao Tong University);*
- 00:00 Chip-based Measurement-device-independent Quantum Key Distribution in the Presence of Polarization-dependent Loss  
*Jiali Zhu (Nanjing University of Posts and Telecommunications); Hua-Jian Ding (Nanjing University of Posts and Telecommunications); Xing-Yu Zhou (Nanjing University of Posts and Telecommunications); Qin Wang (Nanjing University of Posts and Telecommunications);*
- 00:00 Artificially Engineered Nonlinear Circular Dichroism with Chiral Nanoscrolling of 2D Materials  
*Tongtong Xue (Beijing Institute of Technology); Xu Han (Beijing Institute of Technology); Xiangyu Liu (Beijing Institute of Technology); Jinghan Zhao (Beijing Institute of Technology); Jiahao Yan (Beijing Institute of Technology); Yingshan Ma (Beijing Institute of Technology); Ningyi Cai (Beijing Institute of Technology); Xinyue Wang (Beijing Institute of Technology); Shisheng Li (Southeast University); Lixin Ge (Xinyang Normal University); Zhipei Sun (Aalto University); Yuan Huang (Beijing Institute of Technology); Yunyun Dai (Beijing Institute of Technology); Yeliang Wang (Beijing Institute of Technology);*
- 00:00 High-Q Quasi-BIC Dielectric Metasurfaces with Asymmetric Dimer Unit Cells  
*Dayou Liu (Chinese University of Hong Kong); Jianbin Xu (The Chinese University of Hong Kong);*
- 00:00 Spectral Properties of Photosensitive Chiral-nematic Microcavities  
*Abylgazy Sabiralievich Abdullaev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Mikhail Nikolaevich Krakhalev (Siberian Federal University); Anton Sergeevich Zuev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Vladimir Alekseevich Gunyakov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Ivan Vladimirovich Timofeev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Victor Yakovlevich Zyryanov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS);*
- 00:00 Localized Subwavelength Grating Microring Resonator for Photonic Sensing  
*Zihao Wei (University of Sydney); Wenhan Zhang (University of Sydney); Liwei Li (University of Sydney); Xiaoke Yi (University of Sydney);*
- 00:00 Simulation Study of Blue DFB Lasers Based on the Transfer Matrix Method  
*Zhenqian Gu (Fudan University); Yankun Huan (Fudan University); Junhui Hu (Fudan University); Chao Shen (Fudan University);*

- 00:00 Piezoelectrically Compensated Ta<sub>2</sub>O<sub>5</sub> athermal Mach-Zehnder Interferometer with Ultimate Temperature Stability  
*Mingjian You (Southern University of Science and Technology); Zhenyu Liu (Southern University of Science and Technology); Xinyu Guan (Southern University of Science and Technology); Xingyu Tang (Southern University of Science and Technology); Jiaxin Hou (Southern University of Science and Technology); Ziming Zhang (Southern University of Science and Technology); Junke Zhou (Southern University of Science and Technology); Xiaoguang Liu (Southern University of Science and Technology); Qiancheng Zhao (Southern University of Science and Technology);*
- 00:00 Bistability of Trapped Spinor Polariton Condensate in Magnetic Field  
*Meng Niu (Westlake University); Igor Chestnov (Westlake University); Xiaoqing Zhou (Westlake University); Pavlos G. Savvidis (Westlake University);*
- 00:00 A Piston-driven Wideband Reconfigurable Antenna Based on Hybrid Seawater-graphite Monopole  
*Qi Pu Zhang (Tongji University); Bo Wang (Tongji University); Xiao Yu Li (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 A Single-PCB Fabricated, Ultra-wideband, Wide-angle Scanning Array Based on Reuse Feeding Network  
*Yuan Geng (University of Electronic Science and Technology of China); Jin Pan (University of Electronic Science and Technology of China); Wenjiong Tian (University of Electronic Science and Technology of China); Shuangshuang Chen (University of Electronic Science and Technology of China); Changlin Du (University of Electronic Science and Technology of China); Deqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Transmission Coil Separation Distance in Exposure Limited Wireless Power Transfer Design  
*Hendrick Lim (The University of Auckland); Robert Gallichan (The University of Auckland); David M. Budgett (The University of Auckland); Daniel McCormick (The University of Auckland);*
- 00:00 Augmented Community Microwave Emission Model to Simulate Multi-frequency Passive Microwave Satellite Observations over Frozen Ground  
*Jianzhen Fang (Institute of Tibetan Plateau Research, Chinese Academy of Sciences); Donghai Zheng (Institute of Tibetan Plateau Research, Chinese Academy of Sciences);*
- 00:00 Ship Detection Method Based on 0-dimensional Topological Persistent Homology and Local Density Suppressed Diffusion  
*Hongyu Long (Northwestern Polytechnical University); Bo Fei Fu (Northwestern Polytechnical University); Chun Liu (Northwestern Polytechnical University); Jian Yang (Tsinghua University);*
- 00:00 A Physically Guided Multifrequency GPR Data Fusion Method Based on Signal Attenuation-Driven Weight Modulation  
*Liwei Shi (Beijing Institute of Technology); Yongyan Peng (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);*
- 00:00 Generalized SVA for 3-D Near-field Cross-MIMO Imaging  
*Yifan Gong (National Space Science Center, Chinese Academy of Sciences); Limin Zhai (National Space Science Center, Chinese Academy of Sciences); Xi-angkun Zhang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Polarization Spatial Characteristics of Bistatic Scattering of Canonical Shapes  
*Li Gong (National University of Defense Technology); Xiaofeng Ai (National University of Defense Technology); Zhiming Xu (National University of Defense Technology);*
- 00:00 Physics-constrained Diffusion Adversarial Sample Generation for SAR ATR  
*Xinyuan Su (National University of Defense Technology); Sinong Quan (National University of Defense Technology); Zhihao Cai (National University of Defense Technology); Shiqi Xing (National University of Defense Technology); Weize Meng (National University of Defense Technology);*
- 00:00 1-day Rolling Deep Learning for Global Medium-range SST Prediction  
*Nanxiang Huang (Sun Yat-sen university); Jiangnan He (Sun Yat-sen university); Wenfang Lu (Sun Yat-sen university);*
- 00:00 Are Eigenmodes Basis Dependent?  
*Wenjie Jiang (Xidian University); Sachleen Singh (University of the Witwatersrand); Qixin Zhang (Xidian University); Ling Cheng (University of the Witwatersrand); Mingjian Cheng (Xidian University); Lixin Guo (Xidian University); Andrew Forbes (University of the Witwatersrand);*
- 00:00 Physics-guided Posterior Sampling via Latent Flow Matching for 2-D Electromagnetic Inverse Scattering Problems  
*Daoqi Liu (Tsinghua University); Maokun Li (Tsinghua University); Fan Yang (Tsinghua University); Shenheng Xu (Tsinghua University);*
- 00:00 Enhancing RF Magnetometry via Spin Amplification  
*Yufan Niu (Fudan University); Yanhong Xiao (Fudan University);*

- 00:00 Correlation between Fractal Morphology and Percolation-driven Transport in Silver Island Films for Reservoir Computing  
*Polina O. Ksenofontova (Scientific-Manufacturing Complex “Technological Center”); A. P. Orlov (Kotel’nikov Institute of Radio Engineering and Electronics of RAS); A. I. Savitskiy (Scientific-Manufacturing Complex “Technological Center”); Yulia o. Fedorova (Scientific-Manufacturing Complex “Technological Center”); Renat T. Sibatov (Scientific-Manufacturing Complex “Technological Center”);*
- 00:00 Sub-lethal and Species-specific Effects of High-power S-band Pulsed Microwave Irradiation on Stored-grain Weevils  
*Dayang Wang (University of Electronic Science and Technology of China); Kaiyang Hu (University of Electronic Science and Technology of China); Jianlong Liu (University of Electronic Science and Technology of China); Bao-Qing Zeng (University of Electronic Science and Technology of China);*
- 00:00 Dirac-engineered Photonic Crystals for Energy-sensitive Transition Radiation at Brewster Angles  
*Vigen Gareyan (Alikhanyan National Laboratory);*
- 00:00 Quantum Simulation of Tunable Synthetic Lattices with Free Electrons  
*Jing Li (Peking University); Yuhan Jiang (Peking University); Wu Wen (Peking University); Dixuan Wu (Peking University); Yunquan Liu (Peking University);*
- 00:00 Data Centric Nanophotonics: A Framework for Quantifying and Visualizing Training Data Quality  
*Leihao Sun (Fudan University); Y. Zhang (Hongkong University); Yuheng Zou (Fudan University); Fangnian Du (Fudan University); Minghao Huang (Fudan University); Ziwei Li (Fudan University); Junwen Zhang (Fudan University); Nan Chi (Fudan University); Chao Shen (Fudan University);*
- 00:00 A Local Flip-based Quantum Annealing for the Inverse Design of Radar Cross Section (RCS) of Metasurfaces Arrays  
*Shihan Zhang (Nanjing University of Science and Technology); P. Y. Zhou (Nanjing University of Science and Technology); Zi He (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Online Temperature Monitoring Technique for Fiber Lasers Based on Multimode Fiber Speckle Demodulation  
*Junjie Wang (Nantong University); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics); Xiaojun Zhu (Soochow University);*
- 00:00 AI-native 6G RANs: A Standards-compliant Theoretical Framework and Proposed Validation Methodology  
*Roberts Pildavs (Riga Technical University); Jelena Kulikova (Riga Technical University); Romualds Belinskis (Riga Technical University); Mihails Stetjuha (Riga Technical University); Daniels Aleksandrov-Moisejs (Riga Technical University); Elvira Kadylbekkyzy (Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeev); Janeks Ahrems (Riga Technical University); Romans Jerjomin (Riga Technical University); Jelena Kusnere (Riga Technical University); Mihails Kulikovs (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);*
- 00:00 Design of a Compact Rectangular Microstrip Patch Antenna Array for Modern 5G/6G Wireless Communication Systems  
*Hind Abbaoui (Cadi Ayyad University); Salah Eddine El Aoud (Cadi Ayyad University); Fatima Ez-Zaki (Cadi Ayyad University); Abdelilah Ghammaz (Cadi Ayyad University); Hassan Belahrach (Royal School of Aeronautics); Saida Ibyaich (Cadi Ayyad University);*
- 00:00 High-fidelity Vital Sign Separation Under Irregular Respiratory Patterns Using FMCW Radar  
*Xuelin Kong (National University of Singapore); Wenren Zhou (National University of Singapore); Bo Wang (National University of Singapore Suzhou Research Institute); Yongxin Guo (City University of Hong Kong);*
- 00:00 Super-resolution Time Delay Estimation and Thickness Inversion for Overlapping Echoes in Polar Thin Ice  
*Jing Wen (Beijing Institute of Technology); Yuhan Li (Beijing Institute of Technology); Shuangying Sun (Beijing Institute of Technology); You Li (Beijing Institute of Technology); Kunao Li (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);*
- 00:00 Physics-guided Diffusion Models for Solving Inverse Scattering Problems  
*Lue Wen (National University of Singapore); Siyuan Zhao (National University of Singapore); Xudong Chen (National University of Singapore);*
- 00:00 Rank-free Spatial Photonic Ising Machine Enabled by Optical Inner Product and Its Further Applications  
*Ze Zheng (Shanghai Jiaotong University); Yuegang Li (Shanghai Jiaotong University); Hang Xu (Shanghai Jiaotong University); Jingzheng Huang (Shanghai Jiaotong University); Tailong Xiao (Shanghai Jiaotong University); Guihua Zeng (Shanghai Jiao Tong University);*
- 00:00 Reconfigurable Liquid Crystal Physical Unclonable Function Device  
*Hong-Xing Wen (Xiamen University); Jinhui Chen (Xiamen University);*
- 00:00 Sb<sub>2</sub>S<sub>3</sub> Phase-change Metasurfaces for Dynamic QWP-to-HWP Conversion and Optical Steganography  
*Yujia Geng (Eastern Institute of Technology); Weichen Yuan (Eastern Institute of Technology); Xingling Pan (Beijing Institute of Technology); Zi Jing Wong (Eastern Institute of Technology); Fei Ding (Eastern Institute of Technology);*

00:00 Anomalous Time Reflection and Time Transmission of Spoof Surface Plasmonics  
*Junkai Jiang (Nanjing University of Aeronautics and Astronautics); Liangliang Liu (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics); Zhuo Li (Nanjing University of Aeronautics and Astronautics);*

00:00 All-metal Polarization-twisting Metasurface for Millimeter-wave Applications  
*Zixuan Zhang (Shenzhen University); Xue Ren (Shenzhen University);*

00:00 A Cascaded-metasurface Approach to Multi-angle Broadband Transmission Cloaking  
*Ruichen Li (Zhejiang University); Shifeng Xiao (Zhejiang University); C. S. Chen (AVIC Chengdu Aircraft Design & Research Institute); M. Li (AVIC Chengdu Aircraft Design & Research Institute); H. L. Zhao (AVIC Chengdu Aircraft Design & Research Institute); S. Wang (AVIC Chengdu Aircraft Design & Research Institute); L. F. Ma (AVIC Chengdu Aircraft Design & Research Institute); M. Huang (Zhejiang University); B. Zheng (Zhejiang University);*

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**Session 0P8a**

**Advances in Intelligent Metasurfaces**

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**Monday PM, July 27, 2026**

**Room 8 - CR 11**

Organized by Min Huang, Dashuang Liao

Chaired by Min Huang, Dashuang Liao

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00:00 MTM-EBG Inspired Dual-band 1-bit Transmissive Metasurface  
*Manting Wang (University of Electronic Science and Technology of China);*

00:00 Enhancing Indoor Wi-Fi Coverage via Continuous PB Phase Meta-surfaces: A Strategy for Wide-angle Uniform Scattering and Polarization Diversity  
*Xianglong Liu (Jilin University); Dashuang Liao (Anhui Medical University);*

00:00 Reconfigurable Metasurface Holography Assisted by Machine Learning  
*Shifeng Xiao (Zhejiang University); Yijun Zou (Zhejiang University); Bin Zheng (Zhejiang University); Min Huang (National University of Defense Technology);*

00:00 An Angle-insensitive Reconfigurable Metasurface Retroreflector  
*Xin Wei (Zhejiang University);*

00:00 Closed-loop Self-calibration of Quantized Programmable Metasurfaces for Robust Adaptive Electromagnetic Wave Control  
*Eunice Oluwabunmi Owola (Shandong Agricultural University);*

00:00 Broadband Electromagnetic Invisibility Enabled by Delay-line-based Wavefront Control  
*Yitian Huang (Zhejiang University); Bin Zheng (Zhejiang University);*

00:00 Integrated Transparent Dual-band Stealth Structure for Microwave RCS Reduction and Optical Path Reconstruction  
*Wei Du (Zhejiang University); Jiwei Zhao (Zhejiang University); Huan Lu (Zhejiang University); Bin Zheng (Zhejiang University);*

00:00 Broadband Electromagnetic Invisibility Enabled by Delay Line-based Wavefront Control  
*Yitian Huang (Zhejiang University); Jiwei Zhao (Zhejiang University); Huan Lu (Zhejiang University); Bin Zheng (Zhejiang University);*

00:00 Underwater Image Dehazing Based on All-optical Diffractive Neural Network  
*Guixi Mei (Zhejiang University); Min Huang (National University of Defense Technology);*

00:00 Chiral-selective Absorption and Generation of High-purity OAM Beams Using Chiral Reflective Metasurfaces  
*Hongshun Liu (North Minzu University); Xuehong Sun (Ningxia University); L. P. Liu (Ningxia University); C. Y. Jiang (Ningxia University); Q. K. Li (Ningxia University);*

00:00 A Polarization-insensitive Ultra-wideband Terahertz Absorber Based on a Symmetric VO<sub>2</sub> Resonant Cell  
*Qinkai Li (Ningxia University); Hongshun Liu (North Minzu University); Xuehong Sun (Ningxia University); Caiyan Jiang (Ningxia University);*

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**Session 0P8b**

**Multi-functional and Programmable Electromagnetic Metasurface: Designs and Applications**

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**Monday PM, July 27, 2026**

**Room 8 - CR 11**

Organized by Rui Yuan Wu, Qiubo Ye

Chaired by Rui Yuan Wu

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00:00 A Multifunctional Four-channel Programmable Meta-Invited surface  
*Liangwei Wu (Hefei University of Technology); Jingcheng Liang (Hefei University of Technology);*

00:00 Joint Phase and Energy Optimization of STAR-RIS in Physical Layer Security: A Self Attention Reinforcement Learning Strategy  
*Hongbo Huang (Jimei University); Qiubo Ye (Hohai University); Aiguo Shen (Xiamen University Tan Kah Kee College); Guangsong Yang (Jimei University);*

- 00:00 Complex Beam Manipulation Based on Amplitude-phase Programmable Metasurface  
*Hao Tian Shi (Southeast University); He Shi (Southeast University); Rui Yuan Wu (Hohai University); Lei Zhang (Southeast University);*
- 00:00 A Random Search Optimization Algorithm Based on Taylor Weighting for Beam Steering of Specific Harmonic in 2-bit Space-time-coding Metasurface  
*Yi Fei Huang (Southeast University); Yi Bo Zhao (Henan University of Science and Technology); Cun Yue Wei (Hohai University); Pei Hang He (Southeast University); Hao Chi Zhang (Southeast University);*
- 00:00 A Novel Optically and Electromagnetically Transparent Multifunctional Huygens' Metasurface  
*Siyuan Wang (Xi'an Jiaotong-Liverpool University); Rui Yuan Wu (Hohai University);*
- 00:00 A Circularly Polarized Antenna for Millimeter-Wave Applications  
*Shihao Tian (Jimei University); Jing Wu (Jimei University); Jun Xiao (Jimei University); Qiubo Ye (Hohai University);*
- 00:00 A Frequency-reconfigurable Transmissive Metasurface with 1-bit Phase Control and Polarization Conversion  
*He Shi (Southeast University); Hao Tian Shi (Southeast University); Lei Zhang (Southeast University);*
- 00:00 Novel Multi-band Transmitarray Antennas via Slot-type Metasurfaces  
*Rui Yuan Wu (Hohai University); Qiubo Ye (Hohai University);*
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- Session 0P9**  
**Advances and Applications in Topological Acoustics 1 & 2**
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- Monday PM, July 27, 2026**  
**Room 9 - CR 12**
- Organized by Jiuyang Lu, Zhiwang Zhang, Yu-Gui Peng  
 Chaired by Yu-Gui Peng
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- 00:00 Acoustic Bilayer Moiré Metasurfaces  
 Invited *Tianzhi Yang (Northeastern University);*
- 00:00 Acoustic Spin Skyrmion Molecule Lattices Enabling Stable Transport and Flexible Manipulation  
*Lei Liu (Nanjing University); Xiujuan Zhang (Nanjing University); Ming-Hui Lu (Nanjing University); Yan-Feng Chen (Nanjing University);*
- 00:00 Protocol-driven Control of Acoustic Waves  
 Invited *Zeguo Chen (Hong Kong Baptist University);*
- 00:00 Realization of Topological Bound States in the Continuum in Acoustic Crystals  
 Invited *Zhongming Gu (Tongji University);*
- 00:00 Dimensional Hierarchy of Topological Bound States in the Continuum  
 Invited *Liping Ye (Wuhan University); Weiyin Deng (Wuhan University); Jiuyang Lu (Wuhan University); Zhengyou Liu (Wuhan University);*
- 00:00 Broadband Ventilation and Sound Insulation Metamaterial Based on Dual-mode Fano Resonance and Coupling Resonance  
 Invited *Yifan Zhu (Southeast University); Xinghao Hu (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Anomalous Collision of Exceptional Points on Nonorientable Manifolds  
 Invited *Qicheng Zhang (Wuhan University);*
- 00:00 Multistable Dynamics in a Nonlinearly Coupled Acoustical Cavity System  
 Invited *Zhaoxian Chen (Nanjing University);*
- 00:00 Orbital Hybridization Endowed Topological Insulators  
*Feng Gao (Soochow University);*
- 00:00 Defect-immune Sound Radiation in a Topologically Nontrivial Hyperbolic Metamaterial  
 Invited *Yang Zhang (Shenzhen Campus of Sun Yat-sen University); Li-Yang Zheng (Shenzhen Campus of Sun Yat-sen University); Johan Christensen (IMDEA Materials Institute);*
- 00:00 Bound States in the Continuum Generated by Hidden-symmetry  
*Huanze Chen (Shenzhen Campus of Sun Yat-sen University); Li-Yang Zheng (Shenzhen Campus of Sun Yat-sen University);*
- 00:00 Three-dimensional Topological Disclination in Acoustic Crystals  
 Invited *Zhenxiao Zhu (Beijing Institute of Technology); Zhen Gao (Southern University of Science and Technology);*
- 00:00 On-chip Elastic Wave Manipulations Based on Synthetic Dimension  
 Invited *Zhenxing Cui (Zhengzhou University); Chaohua Wu (Zhengzhou University); Qiang Wei (Zhengzhou University); Mou Yan (Zhengzhou University); Gang Chen (Zhengzhou University);*
- 00:00 Directional Sound Transport via Topological Multimode Interference in Heterostructure Sonic Crystal  
*Zhi-Guo Geng (Zhejiang Normal University);*
- 00:00 Experimental Observation of Non-Hermitian Phase Transitions Using Laser-induced Thermoacoustics  
*Haixiao Zhang (Changzhou Institute of Technology); Wei Xiong (Nanjing University); Ying Cheng (Nanjing University); Xiaojun Liu (Nanjing University); Johan Christensen (IMDEA Materials Institute);*
- 00:00 Lossy Phononic Metamaterials for Valley Nonreciprocity  
*Shunda Yin (Wuhan University); Qiuyan Zhou (Wuhan University); Yuziang Xi (Wuhan University); Weiyin Deng (Wuhan University); Wei Chen (Nanjing University); Jiuyang Lu (Wuhan University); Manzhu Ke (Wuhan University); Zhengyou Liu (Wuhan University);*

00:00 Two Distinct Anomalous Localization Effects in Non-Hermitian Acoustic Lattices  
*Chengwu Ji (Jiangnan University); Bolun Hu (Jiangnan University);*

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**Session 0P10a**

**Singular Meta-optics: Merging Metasurfaces with Multidimensional Optical Singularities**

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**Monday PM, July 27, 2026**

**Room 10 - CR 13**

Organized by Xuezhi Zheng, Jie Yang

Chaired by Xuezhi Zheng

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00:00 Programmable Skyrmions with Ultrafast Control for Communication, Sensing, and Harmonic Modulation  
*Long Chen (Southeast University); Xinyu Li (Southeast University); Yijie Shen (Nanyang Technological University); Qian Ma (Southeast University); Jian Wei You (Southeast University);*

00:00 Angular Momenta in Fields from a Rotational Mechanical Antenna and Further  
*Zhikang Xiong (Hubei University); Yangjie Liu (Hubei University); M. Wen (Hubei University); Bin Zhou (Hubei University);*

00:00 Generating Microwave Bimerons with Propagation-variable Topologies by Single Metasurface  
*Jingxian Zhang (Air Force Engineering University); Jie Yang (Airforce Engineering University); Xinmin Fu (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*

00:00 Optical Topological Quasiparticles in Orbitals of Plasmonic Systems  
*Jie Yang (Airforce Engineering University);*

00:00 Non-Hermitian Control of Confined Optical Skyrmions in Microcavities Formed by Photonic Spin-orbit Coupling  
*Xiaoxuan Luo (Xi'an Jiaotong University); Yin Cai (Xi'an Jiaotong University); Xin Yue (Xi'an Jiaotong University); Wei Lin (Xi'an Jiaotong University); Jingping Zhu (Xi'an Jiaotong University); Yanpeng Zhang (Xi'an Jiaotong University); Feng Li (Xi'an Jiaotong University);*

00:00 Orbital Angular Momentum-based Metasurfaces for Scattering Manipulation  
*Qi Zheng (Shanghai University); Zhenyu Pan (Shanghai University); Junyu Ren (Northwestern Polytechnical University); Xiaoyan Pang (Northwestern Polytechnical University); Xiaotong Li (Pohang University of Science and Technology (POSTECH)); Xiaobei Zhang (Shanghai University);*

00:00 Compactly Integrated Metalens for Dual-mode Wavefront Manipulation  
*Xiaoyan Pang (Northwestern Polytechnical University); Mingze Hu (Northwestern Polytechnical University); Junyu Ren (Northwestern Polytechnical University); Qi Zheng (Shanghai University);*

00:00 Generation and Applications of Vortex Beams with Multiple Physical Degrees of Freedom  
*Zixuan Zhang (Peking University); Xuefan Yin (Peking University); Nianyuan Lv (Peking University); Ye Chen (Peking University); Chao Peng (Peking University);*

00:00 Metasurface Polarization Engineering for Imaging Applications  
*Siqi Li (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*

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**Session 0P10b**

**Flexible Metamaterials for Extraordinary Wave Manipulation**

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**Monday PM, July 27, 2026**

**Room 10 - CR 13**

Organized by Zuojia Wang, Liqiao Jing

Chaired by Liqiao Jing, Zuojia Wang

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00:00 Cu/Mn-doped NiZn Ferrite Composite Coding Metasurface for Broadband P-band Absorption and RCS Reduction  
*Chuanbao Liu (University of Science and Technology); Xingwen Tang (University of Science and Technology);*

00:00 Programming Electromagnetic Space with Cooperative Metasurface Clusters  
*Min Li (Anhui Agricultural University);*

00:00 Electromagnetic Functional Reconfiguration Devices Based on LCE-NdFeB @PDMS Composite Actuator  
*Xiao-Liang Ge (Jilin University); Tian-Tai Zhang (Jilin University); Dong-Dong Han (Jilin University); Su Xu (Jilin University);*

00:00 Optically Transparent Metasurface for Microwave-infrared Synergistic Regulation  
*Chenxi Fan (Nanjing University); Junming Zhao (Nanjing University); Tian Jiang (Nanjing University); Ke Chen (Nanjing University); Yijun Feng (Nanjing University);*

00:00 Non-volatile Wavefront Manipulation via Self-locking Origami Mechanical Bits  
*Ding Zhang (Zhejiang University); Liqiao Jing (Zhejiang University); Hongsheng Chen (Zhejiang University); Zuojia Wang (Zhejiang University);*

00:00 Polarization and Incidence Angle Detection Based on Spoof Surface Plasmons  
*Yi Ren (Southeast University); Jingjing Zhang (Southeast University);*

- 00:00 A Bendable Full-space Beam-scanning SSPP Leaky-wave Antenna for Conformal Wireless Links  
*Jiaxuan Wei (Southeast University); Weihai Li (University of Macau); Shizhao Gao (Southeast University); Wenxuan Tang (Southeast University);*
- 00:00 A Gain Enhanced and High Efficiency Antenna-in-package Based on High-refractive-index Metasurface  
*Zhiwei Lin (Shenzhen University); Xue Ren (Shenzhen University);*

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**Session 0P11**

**Mechanical Metamaterials 1 & 2**

**Monday PM, July 27, 2026**

**Room 11 - CR 15**

Organized by Guancong Ma, Xiaoming Zhou, Aoxi Wang

Chaired by Guancong Ma, Aoxi Wang

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- 00:00 Property Customization by Digital and Physical Intelligence for Mechanical Metamaterials  
Invited *Yuli Chen (Beihang University);*
- 00:00 Topologically Protected Soft Modes in Isostatic Mechanical Metamaterials  
Invited *Di Zhou (Beijing Institute of Technology);*
- 00:00 Flexible Network Materials and Their Applications in Bio-integrated Devices  
Invited *Yihui Zhang (Tsinghua University);*
- 00:00 Observation of Topological Edge Modes in a Rotating Mechanical Metamaterial  
Invited *Motonobu Tomoda (Oita University); K. Yamaguchi (Hokkaido University); G. Yoon (Hokkaido University); O. Matsuda (Hokkaido University); Oliver B. Wright (Hokkaido University);*
- 00:00 Deformation, Bifurcation and Wave Localization in a New Type of Flexible Mechanical Metamaterials  
Invited *Jian Li (Zhejiang University); Ronghao Bao (Zhejiang University); Weiqiu Chen (Zhejiang University);*
- 00:00 Acoustic/Elastic Willis Media and Dynamic Homogenization  
Invited *Gengkai Hu (Beijing Institute of Technology);*
- 00:00 Coupled Acoustic-elastic Resonators with High Q via Bound States in the Continuum  
Invited *Iman A. Madkhali (King Abdullah University of Science and Technology); Mohamed Farhat (King Abdullah University of Science and Technology (KAUST)); Ying Wu (King Abdullah University of Science and Technology (KAUST));*
- 00:00 Switching of Topological Interface State Transmission in Soft Elastic Metamaterials under Mechanical Deformation  
Invited *Gang-Gang Xu (Tianjin University); Tianxue Ma (Beijing Jiaotong University); Yue-Sheng Wang (Tianjin University); Johan Christensen (IMDEA Materials Institute);*

- 00:00 Nonreciprocal Topological Kink-wave Propagation in Mechanical Metamaterials  
Invited *Jinliang Wang (Institut FEMTO-ST, Université Marie et Louis Pasteur); Qingxiang Ji (Institut FEMTO-ST, Université Marie et Louis Pasteur); Brahim Lemkalli (Institut FEMTO-ST, Université Marie et Louis Pasteur); Jingyi Zhang (IMDEA Materials Institute); Richard V. Craster (Imperial College London); Johan Christensen (IMDEA Materials Institute); Muamer Kadic (University Bourgogne Franche-Comte);*
- 00:00 Elastic Wave Impedance Metasurface for Mode Conversion with Wavefront Modulation  
Invited *M. Jiang (Tianjin University); Yan-Feng Wang (Tianjin University); Badreddine Assouar (Université de Lorraine); Y. S. Wang (Tianjin University);*
- 00:00 Anderson Transition at Complex Energies in One-dimensional Parity-Time-Symmetric Disordered Systems  
Invited *Wei Wang (Harbin Institute of Technology); Xulong Wang (Hong Kong Baptist University); Guancong Ma (Hong Kong Baptist University);*
- 00:00 Morphing Interface Localization via Nonlinearity  
*Yufeng Liu (Nanjing University); Yi Ru (Nanjing University); Zeguo Chen (Hong Kong Baptist University); Zhaoxian Chen (Nanjing University); Guang-Chen He (Nanjing University); Xiao-Meng Zhang (Nanjing University); Meng Xiao (Wuhan University); Ming-Hui Lu (Nanjing University); Yan-Feng Chen (Nanjing University);*
- 00:00 Non-Hermitian Optical Trapping of Multi-particle Clusters  
*Xiao Li (Southern University of Science and Technology);*
- 00:00 Topological Corner States in the Continuum Induced by Fractal Loss in Acoustic Lattices  
*Jiamin Guo (Tongji University); Zhongming Gu (Tongji University); Jie Zhu (Tongji University);*
- 00:00 Temporal Topological Boundary States in Non-reciprocal System  
*Yuyang Cai (Hunan University); Mengqun Chen (Hunan University); Qinghua Guo (Hunan University); Biao Yang (National University of Defence Technology);*
- 00:00 Observation of Erratic Skin Localization in Acoustic Non-Hermitian Systems  
*Yujian Yuan (Tongji University); Jie Liu (Tongji University); Zhongming Gu (Tongji University); Jie Zhu (Tongji University);*
- 00:00 Experimental Realization of Special-unitary Operations in Classical Mechanics by Non-adiabatic Evolutions  
*Congwei Lu (Hong Kong Baptist University); Xulong Wang (Hong Kong Baptist University); Guancong Ma (Baptist University of Hongkong);*

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**Session 0P12a**
**Bio-Electromagnetic, Biomedical Imaging and Therapy**


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**Monday PM, July 27, 2026**
**Room 12 - CR 16**


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- 00:00 Controlling Viral Inactivation and DNA Photostability via Electromagnetic Fields  
*Claudia Arbeitman (University of Kassel); Luc Wieners (University of Kassel); Pablo Rojas (University of Kassel); Pedro Ojeda-May (Umeå University); Martin E. Garcia (University of Kassel);*
- 00:00 Regulations of Voltage-gated Sodium Channels by Millisecond-duration THz Unipolar Stimulation for Neural Signal Propagation  
*Wenfei Bo (National University of Defense Technology); Rong Che (National University of Defense Technology); Lemeng Guo (National University of Defense Technology); Xiaobo Zhang (National University of Defense Technology); Zifei Jiang (Information Support Force Engineering University); Zeyu Wen (Information Support Force Engineering University); Mao Li (Information Support Force Engineering University);*
- 00:00 Frequency Content of Oxidation and Reduction Dynamics in B-DNA, under the Influence of Transition Mutations and Disorder  
*Pavlos Banev (National and Kapodistrian University of Athens); Constantinos Simserides (National and Kapodistrian University of Athens);*
- 00:00 Feasibility Study on Microwave Glucose Level Monitoring  
*Yong Zhou (University of Texas Rio Grande Valley); Ricardo Cepeda (University of Texas Rio Grande Valley);*
- 00:00 Low Frequency Electromagnetic Energy for Breast Cancer Detection  
*Omar M. Ramahi (University of Waterloo); M. Hernandez (University of Waterloo);*
- 00:00 Microwave Induced Thermoacoustic Communication from the Air to Underwater: Theoretical and Multiphysics Analysis  
*Qixun Zhang (University of Electronic Science and Technology of China); Muran Li (University of Electronic Science and Technology of China); Zhiyuan Zhang (University of Electronic Science and Technology of China); Lin Huang (University of Electronic Science and Technology of China); Guo Liu (University of Electronic Science and Technology of China);*
- 00:00 Non-invasive Modulation of Depressive-like Behaviors in Rats Using Ultrafast Electromagnetic Pulses Generated by FM Pulse Compression  
*Zhiyuan Zhang (University of Electronic Science and Technology of China); Muran Li (University of Electronic Science and Technology of China); Lin Huang (University of Electronic Science and Technology of China); Guo Liu (University of Electronic Science and Technology of China);*

- 00:00 Research on Near-field Focusing Lenses of Ka-band  
*Xingyu Lu (University of Electronic Science and Technology of China (UESTC)); Bingyang Liang (University of Electronic Science and Technology of China (UESTC)); Zhengguo Zhou (University of Electronic Science and Technology of China (UESTC)); Xingyu Hao (University of Electronic Science and Technology of China (UESTC)); Yubin Gong (University of Electronic Science and Technology of China);*
- 00:00 Multiphysics Simulation Study on the Interaction between Ultrafast Electromagnetic Pulses and Human Brain  
*Qi Jiang (University of Electronic Science and Technology of China); Muran Li (University of Electronic Science and Technology of China); Zhiyuan Zhang (University of Electronic Science and Technology of China); Guo Liu (University of Electronic Science and Technology of China);*
- 00:00 Deep Volumetric Super-resolution Imaging in Thick Biological Specimens with Sparse Scanning SIM  
*Sha An (Xidian University); Xuhong Guo (Xidian University); Zhongxia Cai (Xidian University); Peng Gao (Xidian University);*

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**Session 0P12b**
**Convergent Biophotonics and Bio-Interfacing Technologies**


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**Monday PM, July 27, 2026**
**Room 12 - CR 16**

Organized by Lei Gao, Jichuan Xiong

 Chaired by Jichuan Xiong

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- 00:00 Amplitude-modulated Broadband Metasurfaces for Next-generation Bio-imaging: Toward Adaptive and Intelligent Optical Platforms  
*Nasir Mahmood (Suzhou City University);*
- 00:00 Metasurface-based Multi-modal Imaging Systems for Next-generation Photonics  
*Isma Javed (Information Technology University of the Punjab); Azhar Javed Satti (Information Technology University of the Punjab); Muhammad Haseeb Raza (Information Technology University of the Punjab (ITU)); Inki Kim (Sungkyunkwan University (SKKU)); Muhammad Qasim Mehmood (Information Technology University (ITU)); Aaron J. Danner (National University of Singapore);*

- 00:00 Quantum-enhanced Mitotic Figure Detection Using a Hybrid CNN-VQC Architecture  
*Umair Makhdoom (University of Engineering and Technology (UET)); Usman Ali Shams (University of Health Sciences (UHS)); Abdul Wahab (Information technology University); Sadia Noureen (Information Technology University of the Punjab (ITU)); Yee Sin Ang (Singapore University of Technology and Design (SUTD)); Muhammad Zubair (University of Leicester); Muhammad Qasim Mehmood (Information Technology University (ITU));*
- 00:00 OptoPCM-MetaData: A Generative AI-based Approach for Intelligent Optimization of Phase Change Materials  
*Chaohuan Wu (Soochow University); Lei Gao (Suzhou City University); Muhammad Qasim Mehmood (Information Technology University (ITU)); Dongliang Gao (Soochow University);*
- 00:00 Label-free Sensing below the Sub-diffraction Limit of Virus-like Particles by Wide-field Scattering Imaging of a Gold Nanodot Array  
*Jichuan Xiong (Nanjing University of Science and Technology);*
- 00:00 A Phase-reconfigurable mmWave RIS Unit Cell Act as Flexible Shield for Electromagnetic Exposure Reduction in 5G Mobile Phones  
*Qurat ul Ain (Xidian University); Xiaodong Yang (Xidian University); Rameez Asif (University of Greater Manchester); Adil Mustafa (Anglia Ruskin University (ARU)); Irzum Shafique (Xidian University);*
- 00:00 Numerical Investigation of a Tapered Polymer Optical Fiber Biosensor for Refractive Index-based Biomarker Detection in Saliva  
*Muhammad Taasin (University of the Punjab); Sumbel Ijaz (Government College University); Adil Mustafa (Anglia Ruskin University (ARU)); Muhammad Qasim Mehmood (Information Technology University (ITU));*
- 00:00 Self-adaptive Photonic Control of Near-field Radiative Heat Transfer: Dual-terminal Flux Stabilization and Ultrahigh Rectification Enabled by Thermal Expansion Synergy  
*Wenxuan Ge (Soochow University);*
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- Session 0P13**  
**Quantum Information Physics, Materials, and Devices**
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- Monday PM, July 27, 2026**  
**Room 13 - CR 17**  
Organized by Deyi Fu, Yaping Wu  
Chaired by Deyi Fu
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- 00:00 Entanglement in a Molecular Lieb-lattice Quantum Computing Circuit: A Tensor Network Study  
Invited *Wei Wu (University College London);*
- 00:00 Vdws Material  $\text{Fe}_3\text{GeTe}_2$  Based Tunnelling Magnetoresistance and Spin Orbit Torque Switch  
Invited *Linjun Li (Zhejiang University);*
- 00:00 Nonvolatile Magnetotransport Effects in Two-dimensional Antiferromagnets  
Invited *Ding-Fu Shao (Hefei Institutes of Physical Science, Chinese Academy of Sciences);*
- 00:00 Crystal Symmetry-dependent Spin and Orbit Transports  
Invited *Liang Liu (Southwest University of Science and Technology); Hongliang Chen (Southwest University of Science and Technology); Jiaxin Chen (Southwest University of Science and Technology);*
- 00:00 Electrically-tunable Magnetic Proximity in a  $\text{In}_2\text{Se}_3/\text{CrBr}_3/\text{WS}_2$  Van de Waals Heterostructure  
Invited *Xu Li (Xiamen University); Shiming Wu (Xiamen University); Yaping Wu (Xiamen University); Zhiming Wu (Xiamen University); Junyong Kang (Xiamen University);*
- 00:00 Electron Microscopy for Low-dimensional Quantum Materials and Devices  
*Fuchen Hou ();*
- 00:00 Stable Multi-state Antisymmetric Magnetoresistance in  $\text{Fe}_3\text{GaTe}_2/\text{InSe}/\text{Fe}_3\text{GaTe}_2$  van der Waals Heterostructures  
*Bo Zhang (Xiamen University); Lianying Zhu (Xiamen University); Zhiwen Chen (Xiamen University); Ying Zhang (HFIPS Chinese Academy of Sciences); Bosen Wang (Xiamen University); Zhipeng Wang (Xiamen University); Shaoxiong Wu (Xiamen University); Xiaping Chen (Xiamen University); Feng Zhang (Xiamen University); Maoyuan Wang (Xiamen University); Huolin Huang (Dalian University of Technology); Bing Xiang (University of Science and Technology of China); Deyi Fu (Xiamen University); Rong Zhang (Xiamen University);*
- 00:00 Indirect Band Nature of Atomically Thin Hexagonal Boron Nitride Probed by Deep-UV Spectroscopy  
*Lei Fu (Peking University); Yuqing Hu (Beijing Institute of Technology); Ning Tang (Peking University); Junxi Duan (Beijing Institute of Technology); Xionghui Jia (Peking University); Huaiyuan Yang (Peking University); Zhuoxian Li (Peking University); Xiangyan Han (Peking University); Guoping Li (Peking University); Jianming Lu (Peking University); Lun Dai (Peking University); Weikun Ge (Peking University); Yugui Yao (Beijing Institute of Technology); Bo Shen (Peking University);*
- 00:00 Growth of 2D Atomic Crystals on Liquid Metals  
Invited *Dechao Geng (Tianjin University); Qing Zhang (Tianjin University); Wenping Hu (Tianjin University);*
- 00:00 Tunable Infrared Light-emitting Devices Based on 2D Semiconductors  
Invited *Junyong Wang (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences);*

- 00:00 Giant Nonlinear Hall Effect in Isospin Symmetry Broken  
Invited Bilayer Graphene  
*Hao Chen (Nanjing University); Kian Ping Loh (National University of Singapore);*
- 00:00 Narrow-linewidth Laser Diodes Operating in the Visible  
*Feifan Xu (Nanjing University); Zhe Zhuang (Nanjing University); Rong Zhang (Nanjing University); Bin Liu (Nanjing University);*
- 00:00 Cavity QED with High-impedance Metamaterials: Excitonic Insulator, Non-fermi Liquid and Confinement  
*Yuzuan Guo (University of Tokyo); Yuto Ashida (The University of Tokyo);*
- 00:00 Van der Waals GeSe with Strain- and Gate-tunable Linear Dichroism for Wearable Electronics  
*Yangjun Gao (Xiamen University); Chenhao Zhang (Xiamen University); Liangjie Zhao (Xiamen University); Xuanli Zheng (Xiamen University); Yiyao Cao (Xiamen University); Feiya Xu (Xiamen University); Chunmiao Zhang (Xiamen University); Zhiming Wu (Xiamen University); Yaping Wu (Xiamen University); Xu Li (Xiamen University);*
- 00:00 On-device Control of Superconductivity-enabled Magnetism in NbSe<sub>2</sub>  
*Tingyu Qu (National University of Singapore); Barbaros Oezylmaz (National University of Singapore);*
- 00:00 Metal-insulator Transition in Graphene Coupled to a Moire Ferroelectric  
*Pawan Kumar Srivastava (National University of Singapore); Budhi Singh (Sungkyunkwan University); Yasir Hassan (Chungnam National University); Changgu Lee (Sungkyunkwan University);*
- 00:00 Coherent Beam Combining of Laser Array Based on All-Invited fiber Network  
*Rongtao Su (National University of Defense Technology (NUDT)); Kaikai Jin (National University of Defense Technology (NUDT)); Wanru Zhang (National University of Defense Technology);*
- 00:00 Reinforcement Learning Control of Fiber Mode-locked  
Invited Lasers under Environmental Fluctuations and Multistable Mode of Operations  
*Alexey Yu. Kokhanovskiy (ITMO University); Kirill V. Serebrennikov (Novosibirsk State University); Sergey Chirkov (Novosibirsk State University); Denis S. Kharenko (Institute of Automation and Electrometry, SB, RAS);*
- 00:00 Efficient TMI Suppression Based on High-order Modes  
Invited Filter Using Photonic Bandgap Fiber  
*Hu Xiao (National University of Defense Technology); Chongwei Wang (National University of Defense Technology); Mengfan Cui (National University of Defense Technology); Yang Liu (National University of Defense Technology); Xiao Chen (National University of Defense Technology); Wei Liu (National University of Defense Technology); Zilun Chen (National University of Defense Technology); Pengfei Ma (National University of Defense Technology); Zefeng Wang (National University of Defense Technology); Jinbao Chen (National University of Defense Technology);*
- 00:00 LD-pumped High Average Power High Beam Quality  
Invited Monolithic Fiber Lasers and Its Long Distance Propagations in Hollow Core Fiber  
*Baolai Yang (National University of Defense Technology); Zilun Chen (National University of Defense Technology); Pengfei Ma (National University of Defense Technology); Zefeng Wang (National University of Defense Technology);*

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### Session 0P14

#### Advanced High Power Fiber Laser Technology

Monday PM, July 27, 2026

Room 14 - VIP R5

Organized by Rumao Tao, Xiaolin Wang

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- 00:00 Investigation on Large Mode Area Fiber Designs for for  
Invited Transverse Mode Instability Suppression  
*Seongwoo Yoo (Nanyang Technological University);*
- 00:00 Narrowband High-power Multimode and Multicore  
Fiber Lasers Based on fs-inscribed Regular and Random  
Refractive-index Structures  
*Sergey A. Babin (Institute of Automation and Electrometry SB RAS); E. G. Kuznetsov (Institute of Automation and Electrometry SB RAS); Mikhail I. Skvortsov (Institute of Automation and Electroetry, SB, RAS); Zhibzema E. Munkueva (Institute of Automation and Electrometry of the SB RAS); Alexandr V. Dostovalov (Institute of Automation and Electrometry SB RAS);*
- 00:00 Research on High-power Narrow-linewidth Fiber Lasers  
Invited  
*Qirong Xiao (Tsinghua University);*
- 00:00 Research Progress on Liquid Crystal Optical Phased Ar-  
Invited rays for Laser Communication  
*Xiangjie Zhao (Institute of Fluid Physics, China Academy of Engineering Physics); Yingnan Peng (Institute of Fluid Physics, China Academy of Engineering Physics); Qiqi Hu (Institute of Fluid Physics, China Academy of Engineering Physics); Fan Zou (Institute of Fluid Physics, China Academy of Engineering Physics); Dapeng Li (Institute of Fluid Physics, China Academy of Engineering Physics); Hao Shen (Institute of Fluid Physics, China Academy of Engineering Physics);*
- 00:00 High Order Mode Suppression of High Power Fiber Laser  
Invited Enabled by Non-Hermitian Physics  
*Zichao Zhou (Information Support Force Engineering University); Jian Peng (Information Support Force Engineering University); Yang Ran (Information Support Force Engineering University); Ke Li (Information Support Force Engineering University); Rui Chang (Information Support Force Engineering University); Chen Dong (Information Support Force Engineering University);*

00:00 Deep-learning-assisted Ultrabroadband Coherent Anti-Invited Stokes Raman Scattering for Gas-phase Diagnostics

*Yang Ran (Information Support Force Engineering University); Chenhao Yang (Information Support Force Engineering University); Zichao Zhou (Information Support Force Engineering University); Chen Dong (Information Support Force Engineering University);*

00:00 Seminar on Simulation Technology for Novel Fiber Invited Lasers and Advanced Fiber Design

*Lei Duan (Chinese Academy of Sciences); Qiuyan Tang (Institute of Software, Chinese Academy of Sciences); Shudan Tan (Institute of Software, Chinese Academy of Sciences); Jing Li (Institute of Software, Chinese Academy of Sciences); Jing Wang (Institute of Software, Chinese Academy of Sciences); Chufeng Wu (Institute of Software, Chinese Academy of Sciences); Xiongxin Tang (Institute of Software, Chinese Academy of Sciences); Fanjiang Xu (Institute of Software, Chinese Academy of Sciences);*

00:00 Origin of SRS-induced Mode Degradation in High Power Invited Fiber Lasers

*Chun Zhang (University of Science and Technology of China); Fengyun Li (Laser Fusion Research Center, China Academy of Engineering Physics); Xingchen Jiang (Laser Fusion Research Center, China Academy of Engineering Physics); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics); Qihui Chu (Laser Fusion Research Center, China Academy of Engineering Physics); Jing Wen (Laser Fusion Research Center, China Academy of Engineering Physics); Qiang Shu (Laser Fusion Research Center, China Academy of Engineering Physics); Fang Li (Laser Fusion Research Center, China Academy of Engineering Physics); Haoyu Zhang (Laser Fusion Research Center of CAEP); Kegong Dong (Laser Fusion Research Center, China Academy of Engineering Physics); Jianjun Wang (Laser Fusion Research Center of CAEP); Honghuan Lin (Laser Fusion Research Center, China Academy of Engineering Physics); Zhitao Peng (Laser Fusion Research Center, China Academy of Engineering Physics);*

00:00 Self-imaging All-fiber Coherent Combiner: Progress and Invited Prospective Applications

*Yuefang Yan (Laser Fusion Research Center, China Academy of Engineering Physics); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics); Yu Liu (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Yuwei Li (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Anqi Deng (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Chenxu Liu (Laser Fusion Research Center, China Academy of Engineering Physics); Xi Feng (Laser Fusion Research Center, China Academy of Engineering Physics); Yu Qin (Laser Fusion Research Center, China Academy of Engineering Physics); Jianjun Wang (Laser Fusion Research Center of CAEP); Honghuan Lin (Laser Fusion Research Center, China Academy of Engineering Physics); Zhitao Peng (Laser Fusion Research Center, China Academy of Engineering Physics);*

00:00 A Novel Approach for a High Efficient Single-mode Operation near 900 nm in Nd-doped Fiber with ASE Suppression

*Danila A. Davydov (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center); Svetlana S. Aleshkina (Fiber Optics Research Center of the Russian Academy of Sciences); Vladimir V. Velmiskin (Prokhorov General Physics Institute of the Russian Academy of Sciences); Alexey S. Lobanov (Institute of Chemistry of High Purity Substances of the Russian Academy of Science); Mikhail V. Yashkov (Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences); Denis S. Lipatov (Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences); Dmitry V. Przhialkovskii (The Kotelnikov Institute of Radioengineering and Electronics of the Russian Academy of Sciences); Oleg V. Butov (Kotelnikov Institute of Radioengineering and Electronics of RAS); Mikhail Y. Likhachev (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center);*

00:00 Single-step Phase Locking for Coherent Beam Combining via Single-detector Multi-frequency Heterodyne Technique

*Hongbing Zhou (Tsinghua University); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics); Xi Feng (Laser Fusion Research Center, China Academy of Engineering Physics); Min Li (Laser Fusion Research Center, China Academy of Engineering Physics); Dangpeng Xu (Laser Fusion Research Center, China Academy of Engineering Physics);*

- 00:00 Photon-number-resolving Coherent Frequency-shift Keying Quantum-enhanced Receiver  
*Yuanyuan Peng (National University of Defense Technology); Yang Ran (Information Support Force Engineering University); Jian Peng (Information Support Force Engineering University); Huankai Zhang (Information Support Force Engineering University); Chen Dong (Information Support Force Engineering University);*
- 00:00 Chirped Tilted Fiber Bragg Grating Bragg-reflection in High Power Fiber Oscillators: Influence and Mitigation  
*Binchuan Sun (Northwestern Polytechnical University); Shan Huang (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Guijiang Yang (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Xinyu Wang (Science and Technology City Photonics Technology Research Institute); Yu Liu (Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)); Yajun Jiang (Northwestern Polytechnical University); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics); Jianjun Wang (Laser Fusion Research Center of CAEP);*

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**Session 0P15a**

**Chiral and Spin Optoelectronic Devices**

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**Monday PM, July 27, 2026**

**Room 15 - CR 18**

Organized by Taotao Zhuang

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- 00:00 Discrete Chiral Plasmonic Nanoparticles with Strong  
Invited Optical Activities  
*Bing Ni (Beijing Normal University);*
- 00:00 Chiral-perovskite Optoelectronics  
Invited  
*Guankui Long (Nankai University);*
- 00:00 Regulation Strategies for Chiral Nanosystems  
Invited  
*Xiaoqing Gao (Wenzhou Institute, University of Chinese Academy of Sciences);*
- 00:00 Chiral Perovskites: From Fundamentals to Opto-  
Invited spintronics  
*Haipeng Lu (The Hong Kong University of Science and Technology);*
- 00:00 Circularly Polarized OLEDs from Chiral Plasmonic  
Nanoparticle-molecule Hybrids  
*Jiapeng Zheng (University of Shanghai for Science and Technology);*
- 00:00 Excited-states Manipulation in Lanthanide-molecule  
Invited Nanohybrids  
*Sanyang Han (Tsinghua University);*
- 00:00 High-precision Synthesis and Excited-state Control of  
Invited One-dimensional Nanocrystals  
*Yi Li (Hefei University of Technology);*

- 00:00 Engineering Transverse Optical Spin and Chirality in  
Subwavelength Grating Waveguides  
*N. G. Iukhtanov (ITMO University); Roman S. Savelev (ITMO University);*
- 00:00 Harnessing Chiral Supramolecular Self-assembly from  
Keynote Star-like Block Copolymer Building Blocks for Stable  
and Full Color Circularly Polarized Light Emission  
*Minju Kim (Ewha Womans University); Mingyue Zhang (National University of Singapore); Zhiqun Lin (National University of Singapore); Dong Ha Kim (Ewha Womans University);*
- 00:00 Highly Efficient Lead-free Perovskite for Luminescent  
Solar Concentrators  
*Xiyang Li (Nankai University);*

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**Session 0P16**

**Ultrafast and Nonlinear Nanophotonics 1**

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**Monday PM, July 27, 2026**

**Room 16 - CR 19**

Organized by Sergey V. Makarov, Costantino De Angelis, Kirill L. Koshelev, Mihail I. Petrov

Chaired by Kirill L. Koshelev, Mihail I. Petrov

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- 00:00 Thin-film Lithium Niobate Waveguides for Mode-Phase-  
Invited Matching Based Nonlinear Photonics  
*Lei Wang (Shandong University); Feng Chen (Shandong University);*
- 00:00 Employing Frequency-mixing in Metasurfaces for Non-  
Invited linear Imaging  
*Mohsen Rahmani (Nottingham Trent University);*
- 00:00 Towards an Electromagnetically Driven Panacea Plat-  
Invited form  
*Pavel Ginzburg (Tel Aviv University); Hani Barhom (Tel Aviv University); Andrey Machnev (Tel Aviv University); Andrey Ushkov (Tel Aviv University); Denis Kolchanov (Tel Aviv University); Pavel Bezrukov (Tel Aviv University);*
- 00:00 Nonlinear Optical Resonances from Ballistic Electron  
Invited Funnelling  
*Lin Wu (Singapore University of Technology and Design (SUTD));*
- 00:00 Nonlinear Electrodynamics of Ultrafast Laser Structur-  
ing: From Surface Plasmon Instabilities to Bulk Ther-  
moelectric Phenomena  
*Ivan V. Oladyshkin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Daniil A. Fadeev (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Daniil I. Kulshin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Analyzing the Purcell Effect on Resonant Metasurfaces  
*Joshua T. Y. Tse (Osaka Metropolitan University); Taisuke Enomoto (Kyoto University); Shunsuke Mura-  
rai (Osaka Metropolitan University); Katsuhisa Tanaka (Kyoto University);*

- 00:00 Tunable Axial Control of Bessel Beams for Ultrafast Laser-assisted Selective Etching  
*Bing Yan (Heriot-Watt University); Matthew Robertson (Heriot-Watt University); Pablo Roldan (Heriot-Watt University); Calum A. Ross (Heriot-Watt University);*
- 00:00 Generation of Spatiotemporal Optical Vortex by a Single-layer Antireflection Coating  
*Artem I. Kashapov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Evgeni A. Bezus (Image Processing Systems Institute, NRC "Kurchatov Institute"); Dmitry A. Bykov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Leonid L. Doskolovich (Image Processing Systems Institute, NRC "Kurchatov Institute");*
- 00:00 Engineering Flat Bands via Dispersion Curvature Tuning in All-dielectric Metasurfaces for Third-harmonic Generation Enhancement  
*A. A. Nazarenko (Shenzhen MSU-BIT University); K. I. Okhlopkov (Lomonosov Moscow State University); Vladimir O. Bessonov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 Ultrafast Quantum and Classical Nonlinear Nanophotonic Circuits  
Invited  
*Alireza Marandi (California Institute of Technology);*
- 00:00 Nonreciprocal Nanophotonics  
Invited  
*Sergey S. Kruk (Tampere University);*
- 00:00 Anisotropy of Nonlinear Optical Response in Transition Metal Dichalcogenides Mie-resonant Structures  
*Mariia D. Volkova (Shenzhen MSU-BIT University); A. A. Nazarenko (Shenzhen MSU-BIT University); A. A. Popkova (Shenzhen MSU-BIT University); A. A. Popov (Moscow Institute of Physics and Technology); Gleb I. Tselikov (Emerging Technologies Research Center, XPANCEO); Sergey M. Novikov (Moscow Institute of Physics and Technology); Vladimir O. Bessonov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 All-optical Switching in Dielectric Metasurfaces Coupled with Transition Metal Dichalcogenides  
*Anna M. Chernyak (Shenzhen MSU-BIT University); A. I. Musorin (Shenzhen MSU-BIT University); Alexander S. Shorokhov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 Erbium Doped Photonic Integrated Circuits: From Amplifiers to Femtosecond Lasers On Chip  
Invited  
*Zheru Qiu (Swiss Federal Institute of Technology Lausanne (EPFL)); Tobias J. Kippenberg (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 Disorder-tolerant and Tunable Huygens MetaDevices Enabled by Congener Dipoles  
*Ekaterina E. Maslova (ITMO University); Alexander I. Solomonov (ITMO University); Shicheng Wan (Harbin Engineering University); Jinhui Shi (Harbin Engineering University); Mikhail V. Rybin (ITMO University);*
- 00:00 Bound States in the Continuum: From Photoluminescence to Second Harmonic Enhancement  
Invited  
*Kezhou Fan (The Hong Kong University of Science and Technology); Haohan Chen (South China Normal University); Aleksandr A. Sergeev (Institute of Automation and Control Processes, FEB, RAS); Lijun Wu (South China Normal University); Kam Sing Wong (Hong Kong University of Science and Technology);*
- 00:00 Floquet Engineering of Nanosystem in Strong Coupling Regime  
*Ilya V. Doronin (NL Dukhov All-Russian Scientific Research Institute of Automation);*

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**Session 0P17**
**Metasurface Polarization and Diffraction Optics  
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**Monday PM, July 27, 2026**
**Room 17 - CR 20**

Organized by Zi-Lan Deng, Kun Huang, Xiangping Li

Chaired by Zi-Lan Deng

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- 00:00 Reconfigurable Terahertz Metalenses: Paving the Way  
Invited for 6G and Beyond  
*Jingcheng Zhang (Northwestern Polytechnical University);*
- 00:00 Independent Manipulation of Reflection Polarization in a Broadband Transparent Metasurface  
*Haoyang Lv (Nanjing Normal University); Zihan Zheng (Nanjing Normal University); Hongchen Chu (Nanjing Normal University);*
- 00:00 Research on the Modulation of Exciton Luminescence in  
Invited Low-dimensional Materials Based on Optical Microcavities  
*Jianmei Li (Yanshan University);*
- 00:00 Phase-probability Shaping for Speckle-free Holographic Lithography  
*Dong Zhao (University of Science and Technology of China); Weiwei Fu (University of Science and Technology of China); Jun He (University of Science and Technology of China); Ziqin Li (University of Science and Technology of China); Fangwen Sun (University of Science and Technology of China); Kun Huang (University of Science and Technology of China);*
- 00:00 Observation of Strong Spin-orbit Couplings in a Plasmonic Spin-twistronics Topological Lattices  
Invited  
*Peng Shi (Shenzhen University);*

- 00:00 Wireless Exceptional-point Sensors Enhanced by Noise  
Invited  
*Zhipeng Li (University of Science and Technology of China);*
- 00:00 Möbius Metasurface for Fully Decoupled Bidirectional Light Control  
Invited  
*Rongsheng Chen (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Feilong Yu (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Guanhai Li (Shanghai Institute of Technical Physics of the Chinese Academy of Sciences); Xiaoshuang Chen (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Wei Lu (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Exchange Driven Valley Switching in Moiré Semiconductors Correlated States  
Invited  
*Qinghai Tan (University of Science and Technology of China);*
- 00:00 Light-emitting Metasurface for Multi-dimensional Incoherent Fluorescence Manipulation  
Invited  
*Shuai Wan (Wuhan University); Yangyang Shi (Wuhan University); Zejing Wang (Wuhan University); Zhongyang Li (Wuhan University);*
- 00:00 Narrowband Geometric-phase and Laser Wavefront Modulation in Resonant Metasurfaces  
Invited  
*Yixuan Zeng (Peng Cheng Laboratory);*
- 00:00 A 0.18 Cubic Centimeter 3D Meta-holographic Zoom Micro-projector  
Invited  
*Rui-Yi Zhao (Beihang University); Qian Huang (Beihang University); Di Wang (Beihang University);*
- 00:00 Research on Multifunctional Metasurfaces Based on Polarization Multiplexing  
Invited  
*Juan Deng (Zhejiang University of Technology);*
- 00:00 Nanograting-enhanced Light Modulation in Nonlinear Crystal Platforms  
Invited  
*Lei Zhang (Xi'an Jiaotong University); Yaping Hou (Xi'an Jiaotong University);*
- 00:00 Structured Light Field Manipulation and Application Using High-numerical-aperture Metasurfaces  
Invited  
*Guanghui Yuan (University of Science and Technology of China);*
- 00:00 Polarization-sensitive Dynamic Phase Gradient Synthesis with Moiré Metasurface  
*Zhenshuo Chen (Hefei University of Technology); Bingyi Liu (Hefei University of Technology);*
- 00:00 Enhanced Photonic Spin Hall Effect from Slabs and Nanoparticles  
Invited  
*Dongliang Gao (Soochow University);*
- 00:00 Metasurfaces for Tomography and Distribution of Quantum States  
Invited  
*Ruwen Peng (Nanjing University); Mu Wang (Nanjing University);*

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**Session 0P18a**
**Optical Integrated Sensors for Bio Medical and Industrial Applications**


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**Monday PM, July 27, 2026**
**Room 18 - VIP R8**

 Organized by Giovanni Breglio, Andrea Cusano
 

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- 00:00 On-board Fully Analog Temperature Compensation in Fiber-optic Temperature and Humidity Sensing  
*Vincenzo Romano Marrazzo (University of Naples Federico II); Francesco Fienga (University of Naples Federico II); Andrea Irace (University of Naples Federico II); Giovanni Breglio (University of Naples Federico II);*
- 00:00 Design, Implementation and Characterization of Narrowband Optical Filters Using a Multilayer Integrated Methodology on SM and MM Optical Fiber Compatible with Background Noise Suppression in SNSPD Systems  
*Maria Alessandra Cutolo (University of Sannio); Alberto Micco (Centro Regionale Information Communication Technology); Barbara Rossi (University of Naples Federico II); Vincenzo Romano Marrazzo (University of Naples Federico II); Martina Peluso (University of Naples Federico II); Diego Scarano (University of Naples Federico II); Loredana Parlato (University of Naples Federico II); Marco Pisco (University of Sannio); Andrea Cusano (University of Sannio); Giovanni Breglio (University of Naples Federico II);*
- 00:00 Engineering Symmetry-protected and Accidental Bound States in the Continuum for Multimodal Dielectric Biosensing  
Invited  
*Jose Francisco Algorri (Universidad de Cantabria); Dimitrios C. Zografopoulos (Consiglio Nazionale delle Ricerche Istituto per la Microelettronica e Microsistemi); L. Rodríguez-Cobo (Universidad de Cantabria); A. Cobo (Universidad de Cantabria); Mohammed Janneh (University of Sannio); Patrizio Vaiano (University of Sannio); Marco Pisco (University of Sannio); Andrea Cusano (Centro Regionale Information Communication Technology (CeRICT Scrl));*
- 00:00 Thermal Monitoring in Particle Accelerators Using FBG Sensors: Results from the iPipe Project in LHC Run 3  
*Francesco Fienga (University of Naples Federico II); Vincenzo Romano Marrazzo (University of Naples Federico II); Leonardo Sito (European Organization for Nuclear Research (CERN)); Andrea Irace (University of Naples Federico II); Noemi Beni (Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)); Zoltan Szillasi (Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)); Salvatore Buontempo (National Institute for Nuclear Physics (INFN)); Giovanni Breglio (University of Naples Federico II);*

- 00:00 Over a Decade of Uninterrupted FBG Sensing in the CMS Experiment at CERN  
*Francesco Fienga (University of Naples Federico II); Vincenzo Romano Marrazzo (University of Naples Federico II); Leonardo Sito (European Organization for Nuclear Research (CERN)); Noemi Beni (Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)); Zoltan Szillasi (Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)); Salvatore Buontempo (National Institute for Nuclear Physics (INFN)); Giovanni Breglio (University of Naples Federico II);*
- 00:00 Strong Coupling-driven Multi-scale Ultrasensitive Biosensing Based on a Metasurface-enhanced Microcavity  
*Yuqiao Zheng (Zhejiang University); Mohamad Sawan (Westlake University); Sailing He (Royal Institute of Technology & Zhejiang University);*
- 00:00 Optical Fiber Grating-based Sensors for Environmental Monitoring in Radiation-intensive Environments  
*Gaia Maria Berruti (University of Sannio); Lorenzo Scherino (University of Sannio); Patrizio Vavano (University of Sannio); Simona Zuppolini (Institute for Polymers, Composites and Biomaterials); Aldobenedetto Zotti (Institute for Polymers, Composites and Biomaterials); Giuseppe Quero (University of Molise); Mauro Zarrelli (Institute for Polymers, Composites and Biomaterials); Anna Borriello (Institute for Polymers, Composites and Biomaterials); Giovanni Vito Persiano (University of Sannio); Paolo Petagna (European Organization for Nuclear Research (CERN)); Marco Consales (University of Sannio); Andrea Cusano (University of Sannio);*
- 00:00 Optical Fiber Photonic Platform for Light-triggered Localized Drug Delivery  
*Tania Mariastella Caputo (University of Sannio); Gaia Maria Berruti (University of Sannio); Silvia Vanni (IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori"); Angela Maria Cusano (Centro Regionale Information Communication Technology); Claudia Cocchi (IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori"); Chiara Liverani (IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori"); Laura Mercatali (IRCCS Istituto Ortopedico Rizzoli); Toni Ibrahim (IRCCS Istituto Ortopedico Rizzoli); Alessandro De Vita (IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori"); Anna Aliberti (University of Sannio); Marco Consales (University of Sannio);*
- 00:00 Optical Fiber Probe for Side View Fluorescence Spectroscopy in Brain Biopsy  
*Antonio Grieco (University of Sannio); Alberto Micco (Centro Regionale Information Communication Technology); Massimiliano Del Bene (Fondazione IRCCS Istituto Neurologico Carlo Besta); Armando Ricciardi (University of Sannio);*
- 00:00 Prototype-to-chip Design of a Silicon-photonic Fiber-optic Gyroscope  
*Invited Teresa Natale (Polytechnic University of Bari);*
- 00:00 Advanced SERS Platforms Based on Nanopillar Cluster Arrays  
*Mohammed Janneh (University of Sannio); Concetta Esposito (Centro Regionale Information Communication Technology (CeRICT Scrl)); Francesco Galeotti (Istituto di Scienze e Tecnologie Chimiche "G. Natta" (SCITEC) (CNR)); Maria Alessandra Cutolo (University of Sannio); Sara Spaziani (Centro Regionale Information Communication Technology (CeRICT Scrl)); Giovanni Breglio (University of Naples Federico II); Andrea Cusano (Centro Regionale Information Communication Technology (CeRICT Scrl)); Marco Pisco (University of Sannio);*
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- Session 0P18b**  
**Functional Micro- and Nanoscale Materials for Optical Sensing and Imaging**
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- Monday PM, July 27, 2026**  
**Room 18 - VIP R8**  
Organized by Pier Paolo Pompa, Matin S. Ashurov
- 
- 00:00 Angular Tuning of Hybrid Photonic-plasmonic Nanostructures for Optimized SERS  
*Wei Lin (Zhejiang University); Matin S. Ashurov (Westlake University); Emmanouil G. Mavrotsopoulos (Westlake University); Weicheng Cui (Zhejiang Engineering Research Center of Micro/Nano-Photonic/Electronic System Integration); Pavlos G. Savvidis (Westlake University);*
- 00:00 Multifunctional Nanocomposite Biomaterial for Dual Sensing and Therapy Applications  
*Samia Kanwal (Istituto Italiano di Tecnologia (IIT)); Martina Migliavacca (Zhejiang University); Pier Paolo Pompa (Zhejiang University);*
- 00:00 Chirality Factories: Biogenerated Supramolecular Assembly of Helical Oligothiophene Nanofibers  
*F. Marangi (Istituto Italiano di Tecnologia); N. Melchioni (Istituto Italiano di Tecnologia); F. Di Maria (Institute for Organic Synthesis and Photoreactivity (ISOF), National Research Council of Italy (CNR)); A. Ambrosio (Istituto Italiano di Tecnologia); G. Lanzani (Politecnico di Milano);*
- 00:00 Bioinspired Nanobiosensors for Portable and Wearable Diagnostics  
*Invited Elisa Michelini (University of Bologna);*

- 00:00 Plasmonic Enhancement of Light-matter Interactions:  
Invited Computer Simulations and Experiments with Metal-coated Opal Films  
*Sergey O. Klimonsky (Lomonosov Moscow State University); A. V. Grigorieva (Lomonosov Moscow State University); M. O. Astafurov (Lomonosov Moscow State University); S. G. Dorofeev (Lomonosov Moscow State University); M. A. Shevchenko (Lebedev Physical Institute of the Russian Academy of Sciences); A. N. Maresev (Lebedev Physical Institute of the Russian Academy of Sciences); E. V. Perevedentseva (Lebedev Physical Institute of the Russian Academy of Sciences);*
- 00:00 Mechanochromic Distributed Bragg Reflectors for Quantitative Stress-strain Sensing  
*Andrea Lanfranchi (University of Genova); Martina Martusciello (University of Genova); Paola Lova (University of Genova); Davide Comoretto (University of Genova);*
- 00:00 Detect & Destroy: A Singular Multilayered Platform for the Capture, Identification, and Degradation of Emerging Pollutants  
Invited  
*Paola Lova (University of Genova);*
- 00:00 Light-matter Strong Coupling in In-situ Microchannel Perovskite Microcavities  
*Qunqiu Wang (Westlake University); Zhen Cui (Westlake University); Pavlos G. Savvidis (Westlake University);*
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- Session 0P19**  
**Advances in Topological Photonics, Topological Light, and Optoelectronics**
- 
- Monday PM, July 27, 2026**  
**Room 19 - CR 27**  
Organized by Dong-Yang Wang, Hongwei Jia  
Chaired by Dong-Yang Wang, Hongwei Jia
- 
- 00:00 Polarized and Directional Light-emitting from OLEDs  
Invited Based on Microstructured Electrodes  
*Yan-Gang Bi (Jilin University); Mu Lin (Jilin University); Jia-Shuo Zhang (Jilin University); Li-Gen Chen (Jilin University); Zi-Ye Dong (Jilin University);*
- 00:00 Cavity-tunable Topological Phases and Exceptional  
Invited Points in Photonic Crystals  
*Yan Meng (Southern University of Science and Technology); Dong Zhao (Southern University of Science and Technology); Shuxin Lin (Southern University of Science and Technology); Xiaoyuan Jiao (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);*
- 00:00 Finite-barrier Bound States and Flat Bands Enabled by  
Invited p-orbitals  
*Meng Xiao (Wuhan University);*
- 00:00 Intrinsic Topological Hinge States Induced by Boundary Gauge Fields in Photonic Metamaterials  
*Changsheng He (Fudan University); Liang Zhao (Fudan University); Shuang Zhang (The University of Hong Kong); Lei Zhou (Fudan University); Shaojie Ma (Fudan University);*
- 00:00 Fragility of Unidirectional Transport in Weakly Disordered Photonic Chern Insulators  
Invited  
*Jun Chen (Shanxi University);*
- 00:00 Geometry-induced Exceptional Points Revealed by Experimental Reconstruction of Non-Hermitian Band Structures  
Invited  
*Kun Ding (Fudan University);*
- 00:00 Nonlocality-enabled Photonic Parallel Spaces, Wormholes and Multiple Realities  
*Tongtong Song (Nanjing University); Yongxin Jing (Nanjing University); Changhui Shen (Nanjing University); Ru-Wen Peng (Nanjing University); Mu Wang (Nanjing University); C. T. Chan (Hong Kong University of Science and Technology); Yun Lai (Nanjing University);*
- 00:00 Unsupervised Classification of Non-Hermitian Topological Phases under Symmetries  
Invited  
*Yang Long (Tongji University); Haoran Xue (The Chinese University of Hong Kong); Baile Zhang (Nanyang Technological University);*
- 00:00 Emergent Topological States and Reconfigurable Lasing at Arbitrary Site  
*Jinting Ding (Central South University); Bo Wu (Shandong University); Xiang Ni (Central South University); Feng Chen (Shandong University);*
- 00:00 Decaying and Gaining Topological Surface States in  
Invited Two-dimensional Non-Hermitian Gapless Systems with Zero Chern Number  
*Jing Hu (Shanghai University);*
- 00:00 Topology-enforced Fractional Charge  
Invited  
*Baile Zhang (Nanyang Technological University);*
- 00:00 Insulator-free Topological Multilane Waveguides Realized by Accidental Dirac Cones  
Invited  
*Xiaohan Cui (Southeast University); Ruo-Yang Zhang (Nanjing University); Che Ting Chan (The Hong Kong University of Science and Technology);*
- 00:00 Nanoscopy of Helicity-dependent Vectorial Photocurrents on Structured Topological Insulators  
Invited  
*Alexander M. Dubrovkin (Nanyang Technological University); Giorgio Adamo (Nanyang Technological University); Qi Jie Wang (Nanyang Technological University); Nikolay I. Zheludev (University of Southampton); Cesare Soci (Nanyang Technological University);*

- 00:00 Robust Intrinsic Unidirectional Chiral Emission via Magneto-optical Modulation in Bilayer Photonic Crystals  
*Lichang Liu (Shanghai Jiao Tong University); Xinghong Chen (Shanghai Jiao Tong University); Guanjie Zhang (Shanghai Jiao Tong University); Letian Meng (Shanghai Jiao Tong University); Jiankai Tang (Shanghai Jiao Tong University); Yifei Mao (Shanghai Jiao Tong University);*
- 00:00 Jones-matrix Metasurface for Topological Light Generation  
*Hao Peng (University of Southampton); Rui Chen (WISDOM IRG, Singapore-MIT Alliance for Research and Technology (SMART)); Juejun Hu (Massachusetts Institute of Technology); Xu Fang (University of Southampton);*
- 00:00 Shaping and Controlling Nonlinearities in Complex Multimode Systems  
*Yu Di (University of Southampton); Lin Xu (University of Southampton); Massimiliano Guasoni (University of Southampton);*
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- Session 0P20**  
**Exotic and Emerging Topological Phenomenon in Photonics and Phononics 1 & 2**
- 
- Monday PM, July 27, 2026**  
**Room 20 - CR 28**
- Organized by Xiujuan Zhang, Guancong Ma, Ziqi Wang  
Chaired by Xiujuan Zhang, Guancong Ma, Ziqi Wang
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- 00:00 Nonlinear Resonator Networks: From Complex Optics to Advanced Computing and Sensing  
*Alireza Marandi (California Institute of Technology);*
- 00:00 Revealing the Hidden Topological Landscape Embedded within High-dimensional Entangled States  
*Pedro Ornelas (University of the Witwatersrand); Robert De Mello Koch (University of the Witwatersrand); Neelan Gounden (University of the Witwatersrand); Bo-Qiang Lu (Huzhou University); Isaac Nape (University of the Witwatersrand); Andrew Forbes (University of the Witwatersrand);*
- 00:00 Non-Hermitian Point Gap and Skin Effect in Photonic Metastructures  
*Yuto Moritake (The University of Tokyo); Masaya Notomi (NTT Corporation);*
- 00:00 Topological Localization in Time from PT Symmetry  
*Tom Sheppard (University of Birmingham); C. B. B. Camacho (University of Birmingham); Sebastian Weidemann (University of Rostock); Alexander Szameit (University of Rostock); Joshua Feis (University of Rostock); Frank Schindler (Imperial College London); Hannah Price (University of Birmingham);*
- 00:00 Acoustically Induced Dressed States of Erbium Ions for Telecom-band Optomechanics  
*Hajime Okamoto (Basic Research Laboratories, NTT, Inc.); Ryuichi Ohta (Basic Research Laboratories, NTT, Inc.); Xuejun Xu (Basic Research Laboratories, NTT, Inc.); Yoshitaka Taniyasu (Basic Research Laboratories, NTT, Inc.); Takehiko Tawara (NTT Corporation); Hiroshi Yamaguchi (Basic Research Laboratories, NTT, Inc.);*
- 00:00 Anomalous Wave-packet Dynamics in Non-Hermitian Systems  
*Yanyan He (Tohoku University); Tomoki Ozawa (Tohoku University);*
- 00:00 Return of the Skin Effect: Non-Hermitian Skin Effect in Photonics  
*Heming Wang (Westlake University);*
- 00:00 Fisher Information Flow in Electromagnetism  
*Maximilian Weimar (Vienna University of Technology (TU Wien)); Huanli Zhou (University of Southampton); Luca Neubacher (Vienna University of Technology (TU Wien)); Thomas A. Grant (University of Southampton); Jakob Hüpfel (Vienna University of Technology (TU Wien)); Kevin Francis MacDonald (University of Southampton); Stefan Rotter (Vienna University of Technology (TU Wien)); Nikolay I. Zheludev (University of Southampton);*
- 00:00 Dirac Branch-cut Modes  
*B. Zhu (Nanyang Technological University); C. Ma (Nanyang Technological University); Q. Wang (Nanjing University); G. Liu (Westlake University); X. Zhang (Nanyang Technological University); Q. J. Wang (Nanyang Technological University); B. Zhang (Nanyang Technological University); Yidong Chong (Nanyang Technological University);*
- 00:00 Finite Barrier Bound State  
*Tao Liu (Wuhan University); Kai Bai (Wuhan University); Yicheng Zhang (Wuhan University); Duanduan Wan (Wuhan University); Yun Lai (Nanjing University); Che Ting Chan (The Hong Kong University of Science and Technology); Meng Xiao (Wuhan University);*
- 00:00 Surface Acoustic Wave-based Cavity Magnomechanics for Strong Coupling between Magnons and Microwave Phonons  
*Daiki Hatanaka (NTT, Inc.); Motoki Asano (NTT, Inc.); Yoshitaka Taniyasu (Basic Research Laboratories, NTT, Inc.); Hajime Okamoto (Basic Research Laboratories, NTT, Inc.); Hiroshi Yamaguchi (Basic Research Laboratories, NTT, Inc.);*
- 00:00 Observation of Erratic Non-Hermitian Skin Localization and Transport  
*Jia-Xin Zhong (The Pennsylvania State University); Jee Woo Kim (The Pennsylvania State University); Stefano Longhi (Politecnico di Milano); Yun Jing (The Pennsylvania State University);*

- 00:00 Topological Wave Matter Interaction  
Invited  
*Yijie Shen (Nanyang Technological University);*
- 00:00 Lattice Deformation Induced Higher-order Hybrid Topology  
*Peng Wu (Huazhong University of Science and Technology); Yu-Gui Peng (Huazhong University of Science and Technology); Xuefeng Zhu (Huazhong University of Science and Technology);*
- 00:00 Observation of Exceptional Chains Protected by Non-Hermitian Latent Symmetries Unique to Second-order Dynamical Equations  
Invited  
*Xiaohan Cui (Southeast University); Ruo-Yang Zhang (Nanjing University); Guancong Ma (Hong Kong Baptist University); Che Ting Chan (The Hong Kong University of Science and Technology);*
- 00:00 Generalized Co-polarized Geometric Phase  
*Jiusi Yu (The Hong Kong University of Science and Technology (Guangzhou)); Xiaoxiao Wu (The Hong Kong University of Science and Technology (Guangzhou));*
- 00:00 Single Atom Quantum Probes for Dissipative Topological Phase Transitions  
*Wenbo Sun (Tianjin University); Wei Nie (Tianjin University);*

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**Session 0P21**

**Structured Light: From Classical to Quantum 1 & 2**

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**Monday PM, July 27, 2026**

**Room 21 - CR 29**

Organized by Zhi-Han Zhu, Carmelo Rosales-Guzmán,  
Ling-Ling Ma, Jian Chen

Chaired by Ling-Ling Ma, Jian Chen

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- 00:00 Robust Transport Channels in Complex Media  
*Han Gao (University of Shanghai for Science and Technology); Qiwen Zhan (University of Shanghai for Science and Technology); Haifeng Hu (University of Shanghai for Science and Technology); Qiaoqiang Gan (King Abdullah University of Science and Technology (KAUST));*
- 00:00 Nonlinear Evolution of Fractional Optical Skyrmions  
*Yuancong Cao (Xidian University); Ram Nandan Kumar (University of the Witwatersrand); Mingjian Cheng (Xidian University); Li-Xin Guo (Xidian University); Andrew Forbes (University of the Witwatersrand);*
- 00:00 Control of Laser Radiation Structure Based on Coherent Beam Combining  
Invited  
*Vadim V. Dudorov (V.E. Zuev Institute of Atmospheric Optics, SB RAS); Egor V. Adamov (V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Egor Andreevich Bogach (V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Grigori A. Filimonov (V.E. Zuev Institute of Atmospheric Optics); Valeriy V. Kolosov (V.E. Zuev Institute of Atmospheric Optics, SB RAS); M. E. Levitsky (V.E. Zuev Institute of Atmospheric Optics);*
- 00:00 Parity and Radial Momentum Control in Optical Vortices  
Invited  
*Zhenwei Xie (Shenzhen University);*
- 00:00 Periodically-modulated Unipolar and Bipolar Orders in Nematic Fluids towards Miniaturized Nonlinear Vectorial Optics  
Invited  
*Ling-Ling Ma (Nanjing University); Guang-Yang Zhang (Nanjing University); Yan-Qing Lu (Nanjing University);*
- 00:00 Vector Vortex Solitons and Chaoticons in Nonlocal Nonlinear Media  
Invited  
*Hui-Cong Zhang (Zhejiang A&F University);*
- 00:00 Manipulation of Angular Momentum and Topological Structures in Vector Optical Fields  
Invited  
*Jian Chen (University of Shanghai for Science and Technology);*
- 00:00 Coherent Storage of Topologically Structured Light in Cold Atoms  
Invited  
*Jinwen Wang (Xi'an Jiaotong University); Xin Yang (Xi'an Jiaotong University); Yun Chen (Huzhou University); Chengyuan Wang (Xi'an Jiaotong University); Hong Gao (Xi'an Jiaotong University);*
- 00:00 Generation and Modulation of Optical Lattice  
*Hao Zhang (Henan University of Science and Technology);*
- 00:00 Difference-frequency Generation for Noise-resilient Spatial Mode Cryptography  
*Subith Kumar (University of the Witwatersrand); Moslem Mahdaviifar (University of the Witwatersrand); Sachleen Singh (University of the Witwatersrand); Angela Dudley (University of the Witwatersrand); Bereneice Sephton (Università di Napoli Federico II); Isaac Nape (University of the Witwatersrand); Andrew Forbes (University of the Witwatersrand);*
- 00:00 Structured Vector Light Fields for Spatially Resolved Chirality Sensing  
*Jun-Hao Su (Zhejiang Sci-Tech University); Caixia Liu (Zhejiang Sci-Tech University); Xiao-Bo Hu (Zhejiang Sci-Tech University); Carmelo Rosales-Guzmán (Harbin University of Science and Technology);*

00:00 Silicon Bowtie Nanocavities with Nano-  
Invited electromechanical Spectral Tuning for Quantum  
Light Sources

*Sergei Lepeshov (Technical University of Denmark);  
Daniel Alec Farbowitz (Technical University of Den-  
mark); Thor August Schimmell Weis (Technical Univer-  
sity of Denmark); Bingrui Lu (Technical University of  
Denmark); Babak Vosoughi Lahijani (Technical Univer-  
sity of Denmark); Mikkel Heuck (Technical University of  
Denmark); Soren Stobbe (Technical University of Den-  
mark);*

00:00 Prime Number Factorization with the Structured Ran-  
Invited dom Lights

*Chunhao Liang (Shandong Normal University);*

00:00 Multi-modal Detection with Multiplexed Holograms  
*Sachleen Singh (University of the Witwatersrand);  
Qixin Zhang (Xidian University); Wenjie Jiang (Xi-  
dian University); Ling Cheng (University of the Wit-  
watersrand); Mingjian Cheng (Xidian University); Li-  
Xin Guo (Xidian University); Andrew Forbes (Univer-  
sity of the Witwatersrand);*

00:00 Rapid Turbulence Channel Characterization with Deep  
Learning Enabled Multi-mode Detector

*Qixin Zhang (Xidian University); Sachleen Singh (Uni-  
versity of the Witwatersrand); Wenjie Jiang (Xidian  
University); Ling Cheng (University of the Witwater-  
strand); Mingjian Cheng (Xidian University); Lixin Guo  
(Xidian University); Andrew Forbes (University of the  
Witwatersrand);*

00:00 Spatiotemporal Optical Field Manipulation via Two-  
Invited dimensional Space-time Duality

*Wei Chen (Nanjing University); An-Zhuo Yu (Nanjing  
University); Ling-Ling Ma (Nanjing University); Yan-  
Qing Lu (Nanjing University);*

00:00 Fisher Information, Atomic-scale Optical Metrology and  
KeynoteAdvanced Super-resolution Imaging

*Nikolay I. Zheludev (University of Southampton);*

00:00 Self-assembly Nanophotonic Sources

Invited

*Jiangang Feng (University of Science and Technology of  
China);*

00:00 Interfacial Modification of GO-based Hybrid Film Leads  
Invited to Giant Ultrafast Optical Nonlinearity

*Xuefeng Zhang (National University of Defense Tech-  
nology); Hanke Zhang (National University of Defense  
Technology); Zhongquan Nie (National University of De-  
fense Technology);*

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### Session 0P22b

#### Poster Session 1

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Monday PM, July 27, 2026

14:00 PM - 18:00 PM

Poster Area

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00:00 An Infinite Wave Propagation Speed Attainable Inde-  
pendently of Source Functions: Part (II)  
*Namik Yener (Dumlupinar Mahallesi, Ataturk Cad.,  
Gozde Park Evleri No. 30B-10, Pendik);*

00:00 Research on Low RCS Optimization Based on FFD Pa-  
rameterization and High-order MoM

*Hongbin Zhang (Southwest University of Science and  
Technology); Qiangming Cai (Southwest University of  
Science and Technology); Zongwei Zhan (Southwest Uni-  
versity of Science and Technology); Chunying Zhao  
(Chengdu Tianao Technology Development Co., Ltd);  
Jun Zhou (Chengdu Juji Millimeter Wave Technology  
Co., Ltd.); Longjian Zhou (Southwest University of Sci-  
ence and Technology); Xin Cao (Southwest University of  
Science and Technology); Haoran Li (Southwest Univer-  
sity of Science and Technology); Yuyu Zhu (Southwest  
University of Science and Technology); Jun Fan (South-  
west University of Science and Technology);*

00:00 Design of a Miniaturized Self-packaged D-band High-  
selectivity Filter Based on Rectangular Coaxial Struc-  
ture

*Xiaojun Wu (China Mobile Internet of Things Com-  
pany); Xinyao Liu (Chongqing University); Yong-  
bing Luo (China Mobile Internet of Things Company);  
Chao Fan (China Mobile Internet of Things Company);  
Xin Fei (China Mobile Internet of Things Company);  
Luqi Zhang (China Mobile Internet of Things Company);  
Xin He (China Mobile Internet of Things Company);*

00:00 Statistical Characteristics of HPM Backdoor Coupling  
Effect on UAVs Based on Random Coupling Model

*Meiying Li (Southwest University of Science and Tech-  
nology); Xin Cao (Southwest University of Science  
and Technology); Qiangming Cai (Southwest Uni-  
versity of Science and Technology); Chunying Zhao  
(Chengdu Tianao Technology Development Co., Ltd);  
Longjian Zhou (Southwest University of Science and  
Technology); Yuan-Hui Huang (Southwest University of  
Science and Technology); Haoran Li (Southwest Univer-  
sity of Science and Technology); Yuyu Zhu (Southwest  
University of Science and Technology);*

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### Session 0P22a

#### Poster Session for Best Student Presentation Awards Competition - Part 1

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Monday PM, July 27, 2026

Poster Area

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- 00:00 Resolving Complex EMC Environments: Mixed-field Localization and Waveform Recovery for Coexisting Wideband and Narrowband Sources  
*Peng Liu (Southwest University of Science and Technology); Bin Xie (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Zhen-Yong Du (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yixiang Li (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 A Nosie-matched Method for FZA Lensless Imaging  
*Pengtao Jiang (Huazhong University of Science and Technology); Jiange Kuang (Optics Valley Laboratory); Yi Ding (Optics Valley Laboratory); Xiaoqun Yuan (Wuhan University); Wenzhong Liu (Huazhong University of Science and Technology);*
- 00:00 All-dielectric Quarter Wave Plate for Wide THz Bandwidth  
*Rebeca Tudor (IMT);*
- 00:00 Periodic Modulation Effect on Radar Coherent Integration Using Phase-switched Screen  
*Bohui Guo (National University of Defense Technology); Junjie Wang (National University of Defense Technology); De-Jun Feng (National University of Defense Technology);*
- 00:00 Inverse Design of Focusing Metalens  
*Yung-Chiang Lan (National Cheng Kung University); Hong-Yang Chao (National Cheng Kung University);*
- 00:00 Miniaturized Self-packaged D-band Wide Stopband Multiplexer Based on Micro-rectangular Coaxial Structure  
*Xiaojun Wu (China Mobile Internet of Things Company); Xinyao Liu (Chongqing University); Yongbing Luo (China Mobile Internet of Things Company); Chao Fan (China Mobile Internet of Things Company); Xin Fei (China Mobile Internet of Things Company); Luqi Zhang (China Mobile Internet of Things Company); Xin He (China Mobile Internet of Things Company);*
- 00:00 Quantum Collapse-revival Effect of ion Population Probability in Light-phonon-ion Coupling  
*Shiyao Chong (Hengshui University); Lei Wang (Zhejiang University); Jian Qi Shen (Zhejiang University);*
- 00:00 On-chip Waveguide Devices Utilizing Single Quantum Dot Spin Transport  
*Shushu Shi (Southwest Institute of Technical Physics); Yanling Xiong (Southwest Institute of Technical Physics); Liting Deng (Southwest Institute of Technical Physics); Yanling Lu (Southwest Institute of Technical Physics); Qingxia Liu (Southwest Institute of Technical Physics); Zhicheng Xie (Southwest Institute of Technical Physics); Beitong Cheng (Southwest Institute of Technical Physics); Ruomei Jiang (Southwest Institute of Technical Physics); Haotian Jiang (Southwest Institute of Technical Physics); Dianli Zhou (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*
- 00:00 High-precision Heterodyne Photoacoustic Gas Sensing with Resonance Tracking in High-Q Resonators  
*Tingting Wei (Shanxi University); Hongpeng Wu (Shanxi University); Wei Dong Chen (Université du Littoral Côte d'Opale); Biao Li (Chongqing University of Posts and Telecommunications); Bo Sun (Taiyuan University of Technology); Lei Dong (Shanxi University);*
- 00:00 Development and Study of the Properties of Nd and Bi Optical Fibers with an Aluminophosphosilicate Core  
*Denis S. Lipatov (Institute of Chemistry of High Purity Substances of RAS); Alexey N. Abramov (Institute of Chemistry of High Purity Substances of the Russian Academy of Science); Alexey S. Lobanov (Institute of Chemistry of High Purity Substances of the Russian Academy of Science); Denis F. Burmistrov (Institute of Chemistry of High Purity Substances of RAS); Danila A. Davydov (Institute of Chemistry of High Purity Substances of RAS); Mikhail E. Likhachev (Fiber Optics Research Center, Russian Academy of Sciences); Sergey A. Ostrikov (Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center); Mikhail A. Melkumov (Fiber Optics Research Center of the Russian Academy of Sciences); Sergei V. Firstov (Fiber Optics Research Center of the Russian Academy of Sciences);*
- 00:00 Inverse-designed Polarization-insensitive Edge Coupler with High Efficiency for O-band Applications  
*Songyang Li (Beijing University of Posts and Telecommunications); Lei Zhang (Beijing University of Posts and Telecommunications);*
- 00:00 The Influence of Data Preprocessing on the Accuracy of Recognizing the Parameters of Geometric Progression of Optical Vortices in Digital Intensity Images  
*Dmitry O. Shilov (Samara National Research University); Elena Sergeevna Kozlova (Samara National Research University & NRC "Kurchatov Institute");*
- 00:00 Design and Investigation of a Flexible Collapsible Impulse Radiating Antenna  
*Shigang Zheng (Shandong Institute of Aerospace Electronics Technology); W. N. Liu (Shandong Institute of Aerospace Electronics Technology);*

- 00:00 Design of a K/Ka-band Polarization-reconfigurable Circularly Polarized Shared-aperture Antenna Element for Satellite Communications  
*Wenhan Li (Southwest Jiaotong University); Xi-angqiang Li (Southwest Jiaotong University); Jianqiong Zhang (Southwest Jiaotong University); Qingfeng Wang (Southwest Jiaotong University);*
- 00:00 A Novel 3.5G Antenna Design  
*Zeyu Li (Lanzhou University);*
- 00:00 Design and Breakdown Characteristics of High-power Waveguide Windows  
*Guodong Gao (Northwest Institute of Nuclear Technology); Tao Jiang (Northwest Institute of Nuclear Technology); Pin Lu (Northwest Institute of Nuclear Technology); Weida Bai (Northwest Institute of Nuclear Technology); Jianglong Zhou (Northwest Institute of Nuclear Technology); Wei Peng (Northwest Institute of Nuclear Technology); Guang Yang (National University of Defense Technology);*
- 00:00 A Dual-band Bandpass Filter Using Stepped Impedance Resonators with Stub-loaded Resonators  
*Dequan Shang (Southwest University of Science and Technology); Zuxue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Pingping Chen (Southwest University of Science and Technology);*
- 00:00 A FOWLP T/R SiP with Eutectic MoCu Chip Carrier for Heat Dissipation  
*Yi Zhao (University of Electronic Science and Technology of China); Qi Dai (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Dan Tang (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Kai Kang (University of Electronic Science and Technology of China); Like Deng (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Shiping Mao (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Huaqiang Yu (Sichuan Institute of Piezoelectric and Acousto-optic Technology);*
- 00:00 Wideband Gap Waveguide-based Mechanically Reconfigurable Phase Shifter for High-power Applications  
*Zhiqiang Liu (Southeast University); Haiyang Xia (Purple Mountain Laboratories); Huan Liu (Purple Mountain Laboratories); Lianming Li (Southeast University);*
- 00:00 Harmonic Distortion Analysis in Integrated Wireless Power Transfer and Power Line Communication Systems  
*Marco Raugi (Universita di Pisa);*
- 00:00 AI-driven Optimization of Smart Transport Systems in 5G and 6G Networks: Trends, Challenges, and Future Research Directions  
*Jelena Kusnere (Riga Technical University); Romans Jerjomin (Riga Technical University); Roberts Pildavs (Riga Technical University); Aleksejs Kopats (Riga Technical University); Anna Karklina (Riga Technical University); Jānis Klūga (Riga Technical University); Aleksandrs Sviridovs (Riga Technical University); Tianhua Chen (Riga Technical University); Igors Lipšanskis (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);*
- 00:00 Super-resolution Reconstruction of Weather Radar Reflectivity Based on Dual-frequency Radar Data Fusion  
*Yao Li (Chengdu University of Information Technology); Qiangyu Zeng (Chengdu University of Information Technology); Yu Wang (Chengdu University of Information Technology); Mengting Yu (Chengdu University of Information Technology);*
- 00:00 3D Structure and Micromotion Estimation of Ship Targets with Complex Motion Using Single-channel SAR  
*Yifan Liu (National University of Defense Technology); Xiangguang Leng (National University of Defense Technology); Xinqi Xu (National University of Defense Technology); Kefeng Ji (National University of Defense Technology);*
- 00:00 An Adaptive Interpolation Pre-distortion Algorithm  
*Haoyang Li (Inner Mongolia University of Technology); Wei Xu (Inner Mongolia University of Technology); Pingping Huang (Inner Mongolia University of Technology); Weixian Tan (Inner Mongolia University of Technology);*
- 00:00 Low-altitude L2 Signal Reconstruction for FY-3 GNOS Data Using the Physics-constrained Deep Learning Algorithm  
*Xinjie Liu (Fudan University); Geng-Ming Jiang (Fudan University);*
- 00:00 Analysis of Spherical Conformal Phased Array Antennas for 5G/B5G and Low-Earth-Orbit (LEO) Satellite Communications  
*Shih-Chung Tuan (Asia Eastern University of Science and Technology); Kung-Yu Lu (Fuzhou University of International Studies and Trade);*

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**Session 1A1**
**Pioneering Advances in Spaceborne Remote Sensing and Data Assimilation: Observations, Retrievals, Theoretical Frameworks, and AI Innovations 1**


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**Tuesday AM, July 28, 2026**
**Room 1 - CR 1**

Organized by Lei Bi, Wei Han, Xianglei Huang

 Chaired by Lei Bi
 

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- 00:00 Sounding the Atmosphere from Geostationary Orbit — Progress and Applications  
*Jun Li (National Satellite Meteorological Center, CMA); Di Di (Nanjing University of Information and Science Technology); Pengyu Huang (Sun Yat-sen University); Suling Ren (National Satellite Meteorological Center, CMA); Hao Wang (Center for Earth System Modelling and Prediction, CMA); Chengli Qi (National Satellite Meteorological Center, CMA); Ruoying Yin (Center for Earth System Modelling and Prediction, CMA); Wei Han (Center for Earth System Modelling and Prediction, CMA);*
- 00:00 ZJU-SCATTER-V1.0: A New Database of Single-scattering Properties for Aerosols and Ice Crystals to Support General Remote Sensing, Data Assimilation, and Climate Studies  
*Lei Bi (Zhejiang University); Senyi Kong (Zhejiang University); Yue Xi (Zhejiang University); Xuan Wang (Zhejiang University); Wushao Lin (Zhejiang University); Zhenhong Du (Zhejiang University); Wei Han (China Meteorological Administration); Xiaoye Zhang (Institute of Atmospheric Composition, Chinese Academy of Meteorological Sciences);*
- 00:00 Next-Generation Earth System Assimilation: The Confluence of Satellite Observations, Physics, and AI  
*Wei Han (Center for Earth System Modelling and Prediction, CMA);*
- 00:00 Pretraining-enhanced Satellite Sensing Toward Instant On-orbit Monitoring  
*Xing Yan (Beijing Normal University);*
- 00:00 Cloud Thermodynamic Phase Inferred from Simultaneous Shortwave Infrared and Multi-angle Polarization Measurement  
*Haofei Wang (National Satellite Meteorological Center (National Center for Space Weather), China Meteorological Administration); P. Zhang (Meteorological Observation Centre, China Meteorological Administration); X. F. Tan (Nanjing University of Information Science and Technology); K. Suzuki (The University of Tokyo);*
- 00:00 Hybrid Observing System Simulation Experiment (Hybrid-OSSEs) to Evaluate the Potential Impact of the FY-4 Geostationary Orbit Microwave Satellite on Numerical Weather Prediction  
*Ke Chen (Huazhong University of Science and Technology);*
- 00:00 Application Progress of FY-4B GIRS in CMA Global and Regional Model  
*Ruoying Yin (CMA Earth System Modeling and Prediction Centre (CEMC)); Wei Han (CMA Earth System Modeling and Prediction Centre (CEMC)); Hao Wang (CMA Earth System Modeling and Prediction Centre (CEMC));*
- 00:00 Application of Brightness Temperature Remapping of FY-3G MWRI-RM in All-sky Assimilation for CMA-GFS  
*Yingying Chen (Huazhong University of Science and Technology); Ke Chen (Huazhong University of Science and Technology); Wei Han (National Center for Earth System Prediction and Forecasting, China Meteorological Administration); Bowen Cai (Huazhong University of Science and Technology);*
- 00:00 Retrieval of Subpixel Cloud Fraction from Coarse Cloud Masks with Deep Learning  
*Qingmin Wang (Nanjing University); Yannian Zhu (Nanjing University); Chao Liu (Nanjing University); Husi Letu (Aerospace Information Research Institute, Chinese Academy of Sciences); Renge Zhou (Nanjing University); Chen Zhou (Nanjing University);*
- 00:00 Research Progress on Atmospheric Composition Observation of Fengyun Satellites  
*Lin Chen (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Yidan Si (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Yapeng Wang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Ling Gao (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Qian Wang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Lu Zhang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Yan Zhang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Huanhuan Yan (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Sijie Chen (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Weihe Wang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Xiuqing Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Xingying Zhang (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration);*
- 00:00 Global Retrieval of Single-layer Liquid Cloud Geometrical Thickness via OCO-2 Hyperspectral Oxygen A-band Observations  
*Siwei Li (Wuhan University);*

- 00:00 Impacts of Mineralogy and Size on the Spectral Variation of Dust Lidar Properties and Hyper-spectral Reflectance  
*Tony La Luna (UMBC); Zhibo Zhang (University of Maryland, Baltimore County); Qianqian Song (University of Maryland, Baltimore County); Hongbin Yu (NASA);*
- 00:00 Linearized 1D and 3D Radiative Transfer Model Using Discrete Ordinate and Monte Carlo Methods  
*Dongbin Liang (Fudan University); Han Dou (Fudan University); Bingqiang Sun (Fudan University);*
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- Session 1A2**  
**Advances in Ocean Satellites: Missions, Technologies, and Applications**
- 
- Tuesday AM, July 28, 2026**  
**Room 2 - CR 2**  
Organized by Xiaobin Yin, Yan Li  
Chaired by Xiaobin Yin, Yan Li
- 
- 00:00 Advancements in Landsat-derived Shallow-water Bathymetry: A Virtual Coastal Band Optimization Framework and 40-year Temporal Change Detection of Coral Reef Topography  
*Shilin Tang (South China Sea Institute of Oceanology, Chinese Academy of Sciences);*
- Invited 00:00 Concept of a New Remote Sensing Sensor for the Sub-mesoscale Sea Surface Wind Vectors: Bridging the Gap between Small-scale and Mesoscale  
*Wenming Lin (Nanjing University of Information Science and Technology);*
- 00:00 RFI Localization Based on Virtual Large Aperture with Compressed Sensing and Joint Satellite-UAV Detection  
*Ke Chen (Sun Yat-sen University);*
- 00:00 Retrieval of Ocean Surface and Atmospheric Parameters from K- and Ka-band Data Using a Physics-informed Coupled Neural Network  
*Peng Mao (Ocean University of China); Xiaobin Yin (Ocean University of China); Ning Wang (Ocean University of China); Yan Li (Ocean University of China); Qing Xu (Ocean University of China); Qingtao Song (National Satellite Ocean Application Service); Xingwei Jiang (National Satellite Ocean Application Service, Ministry of Natural Resources);*
- 00:00 Event-wise Test-Time Domain Adaptation for Robust SAR Coastal Inundation Mapping Across Flood Events  
*Wantai Chen (Institute of Oceanology, Chinese Academy of Sciences); Chong Wang (Institute of Oceanology, Chinese Academy of Sciences); Zimeng Zhao (Institute of Oceanology, Chinese Academy of Sciences); Xiaofeng Li (Institute of Oceanology, Chinese Academy of Sciences);*
- 00:00 Data-driven Discovery of a Refined Dynamical Model for Ocean Internal Solitary Waves  
*Xia Ren (Inner Mongolia Normal University); B. Saheya (Inner Mongolia Normal University); Xu Chen (Ocean University of China); Jing Wang (Ocean University of China);*
- 00:00 Mapping Melt Pond Fraction on Arctic Sea Ice from Sentinel-2 Data  
*Ying Qu (Northeast Normal University); Ziwei Zhao (Northeast Normal University); Xijia Li (Jilin Jianzhu University);*
- 00:00 A DBF Synthetic Aperture Radiometer for High-resolution Ocean Remote Sensing: Imaging Methods and Array-layout-based Aliasing Mitigation  
*Yicheng Hu (Ocean University of China); Xiaobin Yin (Ocean University of China); Yan Li (Ocean University of China); Qing Xu (Ocean University of China); Xingwei Jiang (National Satellite Ocean Application Service, Ministry of Natural Resources);*
- 00:00 Detecting Ocean Eddies with an Edge-guided Lightweight Deep Learning Model  
*Haochen Sun (Ocean University of China); Hongping Li (Ocean University of China); Tianyu Xia (Ocean University of China); Zijun Han (Ocean University of China);*
- 00:00 SAR Ship Detection Based on YOLOv11 Using Enhanced Multi-scale Feature Extraction and Context-aware Fusion  
*Zijun Han (Ocean University of China); Hongping Li (Ocean University of China); He Liu (Ocean University of China); Haochen Sun (Ocean University of China);*
- 00:00 Detection of Ocean Internal Waves in SAR Imagery Using Convolutional Neural Network with Adaptive Feature  
*Yue Zhang (Ocean University of China); Qing Xu (Ocean University of China); Xiaobin Yin (Ocean University of China); Shuangshang Zhang (Guangdong Ocean University); Yan Li (Ocean University of China); Hao Wang (Ocean University of China);*
- 00:00 A Land-Sea Contamination Correction Method for Interferometric Microwave Radiometer Based on SMOS Data  
*Xinyue Li (Ocean University of China); Yan Li (Ocean University of China); Xiaobin Yin (Ocean University of China); Wu Zhou (National Satellite Ocean Application Service); Huan Zhang (Institute of Remote Sensing Satellites of the China Academy of Space Technology); Jingjing Ren (Remote Sensing Satellites of the China Academy of Space Technology); Xingwei Jiang (National Satellite Ocean Application Service, Ministry of Natural Resources); Zhongkai Wen (Institute of Remote Sensing Satellites of the China Academy of Space Technology);*

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**Session 1A3**
**Advance on Radar Scattering of Random Media and Applications**


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**Tuesday AM, July 28, 2026**
**Room 3 - CR 3**

Organized by Ying Yang, Kun-Shan Chen

 Chaired by Ying Yang, Kun-Shan Chen
 

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- 00:00 A Numerical Study on the Microwave Scattering Mechanism of Ocean Surface at Low Grazing Angles  
*Zhongbiao Chen (Nanjing University of Information Science and Technology); Runxia Sun (Nanjing University of Information Science and Technology); Yijun He (Nanjing University of Information Science and Technology);*
- 00:00 Exploring the Integration of Optical and SAR Data for Sargassum Detection  
*Sree Juwel Kumar Chowdhury (Korea Institute of Ocean Science & Technology); Chan-Su Yang (National Korea Maritime & Ocean University);*
- 00:00 Deep Learning to Predict Surface Permittivity of Southern Utopia Planitia through Tianwen-1 Mars Surface Radar Sensor  
*Lilong Zou (Kingston University); Suyun Wang (National Institute of Information and Communications Technology); Kevin Munisami (Kingston University); Amir M. Alani (Kingston University); Kun-Shan Chen (Nanjing University);*
- 00:00 Small Slope Approximation to Predict Backscatter from Anisotropic  
*K. Karachristos (Sapienza University of Rome); G. Anconitano (National Institute of Geophysics and Volcanology (INGV)); Ferdinando Nunziata (Sapienza University of Rome); Nazzareno Pierdicca (Sapienza University of Rome); Davide Comite (Sapienza University of Rome);*
- 00:00 A Study on the Sentinel-1 Dual-polarimetric SAR-based Coastal Change Detection and Characterization  
*Sree Juwel Kumar Chowdhury (Korea Institute of Ocean Science & Technology); Chan-Su Yang (National Korea Maritime & Ocean University); Armando Marino (University of Stirling);*
- 00:00 EM Scattering Modeling of Multiple Targets on Rough Surface Using an Enhanced Ray Tracing Method  
*Zun Zhang (Tsinghua University); Xin Yuan (Beijing Institute of Technology); Kun-Yi Guo (Beijing Institute of Technology); Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);*
- 00:00 Near-field Imaging of Complex Defect Geometries using Space-frequency Time Reversal MUSIC  
*Chiung-Shen Ku (National Taipei University of Technology); Cheng-Yen Chiang (National Taipei University of Technology);*
- 00:00 Physics-based Simulation-driven Deep Learning Retrieval of Ocean Wind Fields from Synthetic Aperture Radar  
*Cheng-Yen Chiang (National Taipei University of Technology); Kun-Shan Chen (Nanjing University); Chiung-Shen Ku (National Taipei University of Technology); Wen-Yen Chang (National Dong Hua University);*
- 00:00 Integration of the Whittle-Matern Model into Bistatic Scattering Formulations for Enhanced Surface Roughness Characterization  
*Yang Du (Zhejiang University); Yiqin Wang (Zhejiang University); Zhou Shi (Zhejiang University);*
- 00:00 Modelling and Predicting Soil Moisture Retrieval Performances of Anisotropic Soils Using Multi-static Radar  
*K. Karachristos (Sapienza University of Rome); Ferdinando Nunziata (Sapienza University of Rome); Davide Comite (Sapienza University of Rome); Nazzareno Pierdicca (Sapienza University of Rome);*
- 00:00 On Imaging Quality Under Beam-pointing Errors in the Earth Observation Moon-based Synthetic Aperture Radar  
*Zhen Xu (Hohai University); Souadi Khouloud (Linhao Sun) (Hohai University); Jiaqi Chen (Hohai University); Kun-Shan Chen (Nanjing University); Ying Yang (Nanjing University);*
- 00:00 On the Scattering Properties of Moon-based Monostatic/Bistatic SAR for Earth Observation: Geometric Modulation under Orbital Perturbations  
*Zhen Xu (Hohai University); Jiaqi Chen (Hohai University); Kun-Shan Chen (Nanjing University); Ying Yang (Nanjing University);*
- 00:00 Coherent Change Detection using Millimeter-wave GB-SAR  
*Toshifumi Moriyama (Nagasaki University);*
- 00:00 Electromagnetic Scattering from Anisotropic Surfaces with Multiscale Roughness  
*Ying Yang (Nanjing University); Kun-Shan Chen (Nanjing University);*
- 00:00 Multiple Scattering in Rough Surfaces for Soil and High-wind Ocean  
*Hui Jiang (University of Michigan); Firoz Kanti Borah (University of Michigan); Leung Tsang (University of Michigan, President of The Electromagnetics Academy); Tianlin Wang (California Institute of Technology); Simon H. Yueh (California Institute of Technology);*

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**Session 1A4**
**Advances in Intelligent Electromagnetic Computation and Optimization Techniques**


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**Tuesday AM, July 28, 2026**
**Room 4 - CR 8**

Organized by Jia Nan Zhang, Jian Wei You

 Chaired by Jia Nan Zhang
 

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- 00:00 MetaSeeker: Creating an Open Invisible Space  
Invited  
*Chao Qian (Zhejiang University);*
- 00:00 Physics-informed Inverse Design  
Invited  
*Ren Wang (University of Electronic Science and Technology of China);*
- 00:00 Adaptive Sampling Algorithms in Automated Neural-based Model Generation for Microwave Components  
Invited  
*Weicong Na (Beijing University of Technology); Haotian Dai (Beijing University of Technology); Zhaojie Bai (Beijing University of Technology); Wanrong Zhang (Beijing University of Technology);*
- 00:00 Efficient Surrogate-assisted Optimization for Antenna Miniaturization via Dynamic Search Space Sizing  
Invited  
*S. J. Lu (Southeast University); Qi Wu (Southeast University); Haiming Wang (Southeast University);*
- 00:00 Towards Efficient Optimization of Microwave Devices: Integrating Feature Assistance with Machine Learning  
Invited  
*Jing Jin (Central China Normal University); Hai Lin (Central China Normal University);*
- 00:00 A Deep Learning Method for 2D Transverse Magnetic Electromagnetic Simulations  
*Zheng Lang Jia (Xidian University); Huan Huan Zhang (Xidian University); Bian Wu (Xidian University); Ying Liu (Xidian University);*
- 00:00 Physics-driven Inverse Design of Multilayer Resistive Film Absorbers  
*Huini Li (University of Electronic Science and Technology of China); Qiming Wang (University of Electronic Science and Technology of China); Xiangkai Gao (University of Electronic Science and Technology of China); Min Zhang (Shenyang Aircraft Design & Research Institute); Yang Zhou (University of Electronic Science and Technology of China);*
- 00:00 Adjoint-based Material Characterization for Si-based 3-D Heterogeneous Integration  
*Zi Xing Wei (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);*
- 00:00 Domain-knowledge Retrieval-augmented Generation for Design of Electromagnetic Metasurfaces  
*Yan Zhang (Southeast University); Jian Wei You (Southeast University);*
- 00:00 A Deep Learning-assisted Design Method for High-degree-of-freedom Resonators in Chip-scale Rubidium Atomic Clocks  
*Yisu Huang (Southeast University); Che Liu (Southeast University);*

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**Session 1A5a**  
**Antennas and Metasurfaces for Satellites and 6G Communications**

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**Tuesday AM, July 28, 2026**

**Room 5 - CR 9**

Organized by Shuai Zhang, Jiang Xiong

Chaired by Jiang Xiong

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- 00:00 A Polyphenylene Sulfide-based Circularly Polarized Antenna with Loop Metasurface for GPS Applications  
*Chi Zhang (Shanghai Polytechnic University); Jianying Zhao (Shanghai Polytechnic University); Mei Song Tong (Tongji University); Li Zhang (Shanghai Polytechnic University);*
- 00:00 Design of a Low Profile Non-reciprocal Metasurface with Forward Transmission and Backward Absorption  
*Yufeng Yu (Hangzhou City University); Binbin Jiang (Hangzhou City University); Jiawen Yue (Hangzhou City University); Hui Li (Dalian University of Technology);*
- 00:00 Research on Array Beam Scanning Technology with Intelligent Control Method  
*Guangwei Yang (Northwestern Polytechnical University);*
- 00:00 Low-profile Coplanar Shared-aperture Antenna Array for Satellite and 6G Communications  
*Ying Sun (Aalborg University); Jin Zhang (Aalborg University); Ming Yao (Aalborg University); Shuai Zhang (Aalborg University);*
- 00:00 A Three-dimensional Absorbed Power Density (APD) Averaging Algorithm for Nonplanar Human Body Models in Localized EMF Exposure Assessment  
*Ming Yao (Aalborg University); Gert Frolund Pedersen (Aalborg University); Shuai Zhang (Aalborg University);*
- 00:00 A Multiport Network-based Inverse Design Strategy for Fully Connected Metal-only Metasurfaces  
*Wenrui Zheng (Dalian University of Technology); Hui Li (Dalian University of Technology);*
- 00:00 Physics-aware Spatio-temporal Graph Neural Networks for Bandwidth Allocation in Hybrid LEO-MEO Constellations  
*Utkarsh Agrawal (SRM Institute of Science and Technology); Rohan Rajeev Kumar (SRM Institute of Science and Technology); Abinash Kodamsingh (SRM Institute of Science and Technology); Diwakar R. Marur (SRM Institute of Science and Technology);*
- 00:00 Eyes on the Air: Vision-driven Programmable Metasurface Beam Tracking with Zero-feedback  
*Yufei Zhao (Nanyang Technological University); Deyu Lin (Nanchang University); Yujie Zhang (Nanyang Technological University);*

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**Session 1A5b**  
**Metasurface & Metamaterials Antenna**

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**Tuesday AM, July 28, 2026**

**Room 5 - CR 9**

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- 00:00 A High-scanning-rate Dual-dand Leaky-wave Antenna Based on SSPPs that can Suppress the Open Stopband Effect  
*He Xu (Hangzhou Dianzi University); Baicao Pan (Hangzhou Dianzi University);*
- 00:00 High-gain Reconfigurable Antenna in Ka-band Based on a Large Passive Metasurface with Active Feeder  
*Daniel Martinez-de-Rioja (Universidad Politécnic de Madrid); Yolanda Rodriguez-Vaqueiro (Universidade de Vigo); Antonio Pino (Universidade de Vigo); Eduardo Martinez-de-Rioja (Universidad Rey Juan Carlos); Jose Antonio Encinar Garcinuno (Universidad Politécnic de Madrid); Manuel Arrebola (Universidad Politecnica de Madrid);*
- 00:00 Wideband Linear-to-circular Polarizer Metasurfaces for Efficient Antenna Systems  
*Daniel Martinez-de-Rioja (Universidad Politécnic de Madrid); Borja Imaz-Lueje (Universidad Rey Juan Carlos); Eduardo Martinez-de-Rioja (Universidad Rey Juan Carlos); Jose Antonio Encinar Garcinuno (Universidad Politécnic de Madrid); Manuel Arrebola (Universidad Politecnica de Madrid);*
- 00:00 An Electromagnetic Protection Reflector Antenna Based on Polarization-converting Metasurface  
*Zhuo Guo (Southwest University of Science and Technology); Chenkun Xu (Southwest University of Science and Technology); Yipeng Gao (Southwest University of Science and Technology); Liang Liu (Southwest University of Science and Technology); Qi Chen (Southwest University of Science and Technology);*
- 00:00 W-band  $2 \times 2$  Metasurface Antenna-in-package Array Based on Through-glass via Technology with Dual Polarizations  
*Yang Liu (Nanjing University of Science and Technology); Ji-Wei Lian (Nanjing University of Science and Technology); Chun Geng (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Wideband Circularly Polarized Metasurface Antenna for WLAN and Satellite Communications  
*Hanbo Feng (Anhui University of Science and Technology); Zhonggen Wang (Anhui University of Science and Technology); Zhenzhen Chen (Hefei University);*

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**Session 1A6**  
**High Power Microwaves: Sources and Applications 1**

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**Tuesday AM, July 28, 2026**

**Room 6 - CR 10**

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Organized by Mikhail Yu. Glyavin, Nikolai Yu. Peskov,  
Wenjie Fu

Chaired by Mikhail Yu. Glyavin, Nikolai Yu. Peskov

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- 00:00 Results and Trends in High Power Gyrotron Development  
Invited  
*Grigory G. Denisov (Institute of Applied Physics, Russian Academy of Sciences); A. G. Litvak (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Evgeniy M. Tai (Institute of Applied Physics of the RAS); Mikhail Yu. Glyavin (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Selective Cavities with Dielectric Elements for High-Invited harmonic Terahertz Gyrotrons  
*Mikhail Yu. Glyavin (Institute of Applied Physics, Russian Academy of Sciences); Ivan M. Letavin (Institute of Applied Physics Russian Academy of Sciences); Ekaterina M. Novak (Institute of Applied Physics, Russian Academy of Sciences); Ivan V. Osharin (Institute of Applied Physics, Russian Academy of Sciences); Andrei V. Savilov (Institute of Applied Physics, Russian Academy of Sciences); Vasilii V. Gerasimov (Budker Institute of Nuclear Physics SB RAS); Vladimir N. Kurlov (Osipyan Institute of Solid State Physics RAS); Gleb M. Katyba (Osipyan Institute of Solid State Physics RAS);*
- 00:00 Accuracy-enhanced Model and Flexible Design of the New KIT Gyrotron Interaction Code ROCK  
*Chuanren Wu (Karlsruhe Institute of Technology (KIT)); A. Schmidt (Karlsruhe Institute of Technology (KIT)); L. Feuerstein (Karlsruhe Institute of Technology (KIT)); D. Mondal (Karlsruhe Institute of Technology (KIT)); R. Bertazzoni (Karlsruhe Institute of Technology (KIT)); B. Ell (Karlsruhe Institute of Technology (KIT)); S. Illy (Karlsruhe Institute of Technology (KIT)); M. Misko (Karlsruhe Institute of Technology (KIT)); M. Thumm (Karlsruhe Institute of Technology (KIT)); M. Vöhringer (Karlsruhe Institute of Technology (KIT)); J. Jelonnek (Institute for Pulsed Power and Microwave Technology, Karlsruhe Institute of Technology);*

- 00:00 Design of a Mode Generator Setup for Cold Measurements on a 238 GHz TE<sub>49,29</sub>-mode Gyrotron Launcher Antenna  
*Moritz Misko (Karlsruhe Institute of Technology (KIT)); Lukas Feuerstein (Karlsruhe Institute of Technology (KIT)); Stefan Illy (Karlsruhe Institute of Technology (KIT)); John Jelonnek (Karlsruhe Institute of Technology (KIT)); Jianbo Jin (Karlsruhe Institute of Technology (KIT)); André Schmidt (Karlsruhe Institute of Technology (KIT)); Manfred Thumm (Karlsruhe Institute of Technology (KIT)); Dietmar Wagner (Max Planck Institute for Plasma Physics); Chuanren Wu (Karlsruhe Institute of Technology (KIT));*
- 00:00 Non-adiabatic Electron Gun for Low-voltage Technology Gyrotron  
*Dun Lu (University of Electronic Science and Technology of China (UESTC)); Wenjie Fu (University of Electronic Science and Technology of China);*
- 00:00 W-band Gyrotron for Hard Rock Drilling  
 Invited  
*Alex Shteinman (Ariel University); Yarden Shay (Ariel University); Sergey Shevchenko (Ariel University); Moritz Pilosoff (Ariel University); Moshe Einat (Ariel University);*
- 00:00 Megawatt Power-level G-band Planar Gyrotrons Operating at the Second Cyclotron Harmonic  
*Vladislav Yur'evich Zaslavsky (Institute of Applied Physics, Russian Academy of Sciences); Ilya V. Zhelezov (Institute of Applied Physics, RAS); Alexander Sergeevich Sergeev (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Michael N. Vilkov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Gyrotron Development and Experimental Advancements at KIT  
 Invited  
*John Jelonnek (Karlsruhe Institute of Technology); B. Baumann (Karlsruhe Institute of Technology (KIT)); Benjamin Bischofberger (Karlsruhe Institute of Technology (KIT)); R. Bertazzoni (Karlsruhe Institute of Technology (KIT)); Benjamin Ell (Karlsruhe Institute of Technology (KIT)); L. Feuerstein (Karlsruhe Institute of Technology (KIT)); Gerd Gantenbein (Karlsruhe Institute of Technology (KIT)); Stefan Illy (Karlsruhe Institute of Technology (KIT)); Jianbo Jin (Karlsruhe Institute of Technology); T. Kobarg (Karlsruhe Institute of Technology); D. Köhler (Karlsruhe Institute of Technology); D. Mondal (Karlsruhe Institute of Technology); Moritz Misko (Karlsruhe Institute of Technology (KIT)); Tomasz Rzesnicki (Karlsruhe Institute of Technology (KIT)); A. Schmidt (Karlsruhe Institute of Technology (KIT)); S. Stanculovic (Karlsruhe Institute of Technology (KIT)); Manfred Thumm (Karlsruhe Institute of Technology (KIT)); Max Vöhringer (Karlsruhe Institute of Technology (KIT)); J. Weggen (Karlsruhe Institute of Technology (KIT)); N. Wirth (Karlsruhe Institute of Technology (KIT)); Chuanren Wu (Karlsruhe Institute of Technology (KIT));*
- 00:00 Research on High-power Gyro-devices in Shenzhen University  
 Invited  
*Wenlong He (Shenzhen University); Junqiang Gao (Shenzhen University); Bo Li (Shenzhen University); Wenjie Yu (Shenzhen University); Qiang Hu (Shenzhen University); Guoxiang Shu (Shenzhen University); Huabi Yin (Shenzhen University);*
- 00:00 Development of sub-THz Gyro-BWO with Zigzag Quasi-optical Transmission Line  
*Sergey V. Samsonov (A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences); Grigory G. Denisov (A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences); A. A. Bogdashov (A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences); Igor G. Gachev (A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences); Maxim V. Kamenskiy (A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 Multifrequency Gyromultiplier with Sectioned Electron Beam  
*Xianfei Chen (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Shaozhe Zhang (Huazhong University of Science and Technology); Donghui Xia (Huazhong University of Science and Technology); Xiaotao Han (Huazhong University of Science and Technology);*
- 00:00 Design of a Superconducting Magnet for Gyro-TWT Experiments from 94 to 263 GHz  
*Max Vöhringer (IHM Karlsruhe Institute of Technology (KIT)); Stefan Illy (IHM Karlsruhe Institute of Technology (KIT)); Alexander Marek (Fraunhofer-Institute for High-Frequency Physics and Radar Techniques (FHR)); Benjamin Bischofberger (IHM Karlsruhe Institute of Technology (KIT)); Moritz Misko (IHM Karlsruhe Institute of Technology (KIT)); Benjamin Ell (IHM Karlsruhe Institute of Technology (KIT)); Manfred Thumm (IHM Karlsruhe Institute of Technology (KIT)); John Jelonnek (Karlsruhe Institute of Technology (KIT));*
- 00:00 Broadband Frequency Modulation of a 263 GHz Gyrotron Achieved by a Cascaded Dual-resonator Cavity  
*Yicheng Lu (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology);*

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**Session 1A7a**
**Short-Oral Presentations for Best Student Presentation Awards Competition - Part 2**


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**Tuesday AM, July 28, 2026**
**Room 7 - VIP R3**


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- 00:00 Frequency Band Applicability Analysis of Two Approximation Methods for VLF Propagation in the Earth-ionosphere Waveguide  
*Jiafan Wang (Xi'an University of Technology); Yu-Rong Pu (Xi'an University of Technology); Shaojie Zhou (Xi'an University of Technology); Jiaju Zhou (Xi'an University of Technology); Dandan Wang (University of Jinan);*
- 00:00 An Efficient Multiple Objects' RCS Reduction Method with PO-SBR Based Space Mapping Algorithm  
*Yuheng Wang (Nanjing University of Science and Technology); Jihong Gu (Nanjing University of Science and Technology); Zhaoyuan Wang (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Surface Phonon Polariton Resonances in a Hexagonal 6H-SiC Cylinder Array Excited by a Cylindrical Wave  
*Nikita D. Aniutin (Russian New University);*
- 00:00 Enhancing Goos-Hänchen Shift with Guided Mode Resonance in Temporal Grating  
*Youxiu Yu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Broadband Polarization Conversion Metasurface Based on Graphene-assembled Films  
*Xinrui Zhao (Wuhan University of Technology); Hao-ran Zu (Wuhan University of Technology); Rong-guo Song (Wuhan University of Technology);*
- 00:00 Disordered Metasurfaces for High-fidelity Transmission Imaging and Wide-gamut Matte Camouflage Mimicry  
*Jin Qin (Nanjing University); Tao Yang (Nanjing University); Xiaolong Wei (Nanjing University); Xi-ang Xiong (Nanjing University); Jiatong Shi (Nanjing University); Hongchen Chu (Nanjing Normal University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University); Yun Lai (Nanjing University);*
- 00:00 Metasurface-enabled Highly Integrated Two-photon Polymerization Laser Processing System with Synchronous Imaging  
*Yuchao Feng (Huazhong University of Science and Technology); Binjie Zhang (Huazhong University of Science and Technology); Xinger Wang (Huazhong University of Science and Technology); Anze Li (Huazhong University of Science and Technology); Hui Gao (Huazhong University of Science and Technology);*
- 00:00 A Low-profile Metasurface Resonator for Microwave Material Detection  
*Lu Yi Liu (Tongji University); Ajay K. Poddar (Synergy Microwave Corporation); Ulrich L. Rohde (Synergy Microwave Corporation); Mei Song Tong (Tongji University);*
- 00:00 Impact of Convective Nonlinearities on Terahertz Plasmons in Drifting Two-dimensional Electron Gas  
*Hanghai Deng (University of Electronic Science and Technology of China); Mi Tian (University of Electronic Science and Technology of China); Zijian Qiu (University of Electronic Science and Technology of China); Ping Zhang (University of Electronic Science and Technology of China); Shengpeng Yang (University of Electronic Science and Technology of China (UESTC)); Yubin Gong (University of Electronic Science and Technology of China);*
- 00:00 Polarization-enabled Control of Interface States in a 3D Dielectric Photonic Topological Insulator  
*Georgiy Kurganov (ITMO University); Jiangnan Xing (ITMO University); Dmitry V. Zhirihin (ITMO University);*
- 00:00 Metasurface Enhanced Mid-infrared Photothermal Spectroscopy  
*Tianrun Zhang (Zhejiang University); Zhibin Hu (Westlake University); Siying Peng (Westlake University); De-long Zhang (Zhejiang University);*
- 00:00 Plasmonic Nanoparticle-on-nanoslit Antenna as Independently Tunable Dual-resonant Systems for Efficient Frequency Upconversion  
*Zhiwei Hu (East China Normal University); Huatian Hu (Istituto Italiano di Tecnologia (IIT)); Christophe Galland (Ecole Polytechnique Fédérale de Lausanne (EPFL)); Wen Chen (East China Normal University);*
- 00:00 Spectropolarimeters with a Single High-dimensional Photodetector  
*Junho Min (Gwangju Institute of Science and Technology (GIST)); Xinyue Wang (Beijing Institute of Technology); Jihun Park (Gwangju Institute of Science and Technology (GIST)); Yunyun Dai (Beijing Institute of Technology); Hoon Hahn Yoon (Gwangju Institute of Science and Technology (GIST));*
- 00:00 Neural Network-enabled Ultra-compact Reconfigurable Optical Interconnection System via Phase Change Material  
*Mingyu Luo (The Hong Kong Polytechnic University); Chao Lu (The Hong Kong Polytechnic University);*
- 00:00 Highly Sensitive Photoacoustic Gas Sensor Using a Hyperbolic Nonlinear Resonator Integrated with a Near-concentric Multipass Cavity  
*Yaopeng Cheng (Zhejiang University); Ruili Zhang (Zhejiang University); Sailing He (Royal Institute of Technology & Zhejiang University);*
- 00:00 Benzamidine Derivative as a Multifunctional Additive for Efficient and Stable Pb-Sn Perovskite Solar Cells  
*Zilong Bing (Jilin University); Jingsong Huang (University of Oxford); Fenghong Li (Jilin University);*

- 00:00 Magneto-optic Circulator Integrated on Silicon Nitride Platform for FMCW Transceiver Applications  
*Zixuan Wei (University of Electronic Science and Technology of China); Xuan Zhao (University of Electronic Science and Technology of China); Di Wu (University of Electronic Science and Technology of China); Xiaoyi Song (University of Electronic Science and Technology of China); Junxian Wang (University of Electronic Science and Technology of China); Tianchi Zhang (University of Electronic Science and Technology of China); Zhenyuan Ren (University of Electronic Science and Technology of China); Jun Qin (University of Electronic Science and Technology of China); Lei Bi (University of Electronic Science and Engineering of China);*
- 00:00 Reconfigurable Nanophotonic Physical Unclonable Function Based on Disordered Electrochromic Tungsten Oxide  
*Xiaokang Wang (University of Electronic Science and Technology of China); Feiliang Chen (University of Electronic Science and Technology of China); Haonian Fang (University of Electronic Science and Technology of China); Ruijie Hui (University of Electronic Science and Technology of China); Yang Liu (University of Electronic Science and Technology of China); Fan Yang (University of Electronic Science and Technology of China); Haiquan Zhao (University of Electronic Science and Technology of China); Hao Jiang (University of Electronic Science and Technology of China); Mo Li (University of Electronic Science and Technology of China); Jian Zhang (University of Electronic Science and Technology of China);*
- 00:00 A Dual-band Co-aperture Metasurface Slot Antenna for Bidirectional Tunnel Coverage at 2.4 GHz and 5.8 GHz  
*Ruibo Chen (Xi'an University of Science and Technology); Wang Yao (Wuhan University); Xiaojun Huang (Xi'an University of Science and Technology);*
- 00:00 Efficient Transformer-based S-parameter Extraction for Multiple Transmission Lines in PCB  
*Ke Guo (); Quan Chen ();*
- 00:00 A 40 MHz PVT-stabilized Relaxation Oscillator Using Voltage Averaging Feedback in 55 nm CMOS  
*Siyun Ding (Shanghai Jiao Tong University); Xuyang Lu (Shanghai Jiao Tong University);*
- 00:00 An Improved Sample Selection Strategy for SAR Polarimetric Calibration Based on the Correlation Coefficient of HH and VV Polarizations and the Polarization Orientation Angle  
*Zihe Deng (Aerospace Information Research Institute, Chinese Academy of Sciences); Lizhi Liu (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Cheng Xing (Aerospace Information Research Institute, Chinese Academy of Sciences); Pingping Lu (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 Gridless Sparse Recovery STAP Framework Based on Space-time Spectrum Shaped for BiSAR Clutter Suppression  
*Jun'ao Li (Zhengzhou University); Jing Yang (Zhengzhou University); Qing Yang (University of Electronic Science and Technology of China);*
- 00:00 A Physics-informed Deep Learning Network for Adaptive Multi-frequency GPR Signal Fusion  
*Yongyan Peng (Beijing Institute of Technology); Liwei Shi (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);*
- 00:00 Bayesian Optimization of Freeze-layer Depth and Regularization Parameters for Wav2Vec 2.0  
*Shuya Sakai (Prefectural University of Hiroshima); Hisako Orimoto (Prefectural University of Hiroshima);*
- 00:00 Enhanced Spatiotemporal Soil Moisture Mapping from CyGNSS Following the 2021 Zhengzhou Extreme Flood  
*Lei Hong (University of Alcalá); Shuanggen Jin (Henan Polytechnic University); Andres Calabia Aibar (University of Alcalá);*
- 00:00 Environmental Decoupling Mechanisms in Spaceborne GNSS-R Soil Moisture Retrievals over Australia Continent  
*Zixuan Guo (Nanjing University of Information Science and Technology); Jingjing Wang (Nanjing University of Information Science and Technology); Qingyun Yan (Nanjing University of Information Science and Technology);*
- 00:00 Dual-polarimetric Ship Target Detection Method Based on MambaOut-YOLO  
*Zhihao Cai (National University of Defense Technology); Sinong Quan (National University of Defense Technology); Xinyuan Su (National University of Defense Technology); Junpeng Wang (National University of Defense Technology); Shiqi Xing (National University of Defense Technology); Yongzhen Li (National University of Defense Technology);*
- 00:00 Three-dimensional Marine Heatwave Reconstruction in the Northwest Pacific Using a Spatiotemporal Attention Network  
*Yujiao Zheng (Sun Yat-Sen University); Xihong Fang (Sun Yat-Sen University); Wenfang Lu (Sun Yat-Sen University);*
- 00:00 Asymptotic Methods for Inverse Scattering Problems with Electrically Large PEC Structures  
*Yue Feng Tan (National University of Singapore); Xudong Chen (National University of Singapore);*
- 00:00 Inverse Design Based on Machine Learning for Transmissive-Frequency-Selective-Surfaces  
*Huangjian Fei (Soochow University); Yilin Zheng (Soochow University);*
- 00:00 The Design of the USB 2.0 and Multi-serial Protocol Conversion System Based on FPGA  
*Anlin Xiong (Chengdu Technological University); Qiao Li (Chengdu Technological University); Xiaopei Chen (Chengdu Technological University); Shouqiang Li (Chengdu Technological University);*

- 00:00 Wirelessly Tunable Metasurface for Dynamic  $B_1^+$  Field Homogenization in 5 T MRI  
*Xinchen Zhu (ShanghaiTech University); Zhenyang Zhu (ShanghaiTech University); Shenghong Pei (ShanghaiTech University); Zhihua Ren (ShanghaiTech University);*
- 00:00 Beyond Optical Chirality Density: Tensor Descriptors of Electromagnetic Chirality  
*Iliia A. Smagin (Skolkovo Institute of Science and Technology); Nikolay A. Gippius (Skolkovo Institute of Science and Technology); Sergey A. Dyakov (Skolkovo Institute of Science and Technology);*
- 00:00 Single-photon Source with Tunable Coupling to a Waveguide  
*Vladimir Voskresenskii (Moscow Institute of Physics and Technology); A. V. Vasenin (Moscow Institute of Physics and Technology); A. Yu. Dmitriev (Moscow Institute of Physics and Technology); M.-T. Deng (National University of Defense Technology); O. V. Astafiev (Skolkovo Institute of Science and Technology);*
- 00:00 Uncertainty of Bloch Waves in One-dimensional Periodic Structures  
*Kliment V. Semushev (ITMO University); Zhibzema E. Munkueva (Institute of Automation and Electrometry of the SB RAS); Alexandr V. Dostovalov (Institute of Automation and Electrometry SB RAS); Sergey A. Babin (Institute of Automation and Electrometry SB RAS); Ekaterina E. Maslova (ITMO University); Mikhail V. Rybin (ITMO University);*
- 00:00 Designing a Magnetically Tunable Antenna: A Methodology for Multiband Anti-jamming  
*Mario Chiapparini Neto (University of Campinas); Hugo Enrique Hernandez-Figueroa (University of Campinas (UNICAMP)); Christian Rothenberg (University of Campinas); Gianni Masaki Tanaka Portela (Tokyo Institute of Technology);*
- 00:00 A New Method for Fast Simulation of Spatially Separated Cascaded Dielectric Metasurfaces  
*Haoman Wang (Zhejiang University); Haogang Wang (Zhejiang University);*
- 00:00 Drop-shaped Optical Microfiber Enabled Biomechanical Sensor  
*Yan Xu (Zhejiang University); Lei Zhang (Zhejiang University);*
- 00:00 An Innovative Parallel Feeding Method for Controlling Ground Modes to Achieve LB-band Omnidirectional Radiation Patterns in Foldable Smartphone Antennas  
*Xinnan Liu (Fudan University); Yan Wang (Fudan University); Zhewei Fu (Zhejiang Dahua Technology Co., Ltd.);*
- 00:00 Flexible Framework for Automated Small-signal Model Extraction for InP/GaAs D-HBTs: Combining Optimization with Physics-based Constraints  
*Loïc Pouzenc (Université de Toulouse); Mohammed Zakhounne (Université de Toulouse); Jean Guy Tartarin (Université de Toulouse);*
- 00:00 Geometry-constrained SAR Navigation via Dihedral Phase-center Anchors and Differentiable Gaussian Splatting  
*Hariharan Mohanabala Krishnan (National University of Singapore); Xudong Chen (National University of Singapore);*
- 00:00 Advancing All-sky Assimilation of Geostationary Hyperspectral Infrared Satellite Observations  
*Senyi Kong (Zhejiang University); Wei Han (China Meteorological Administration); Lei Bi (Zhejiang University); Ruoying Yin (China Meteorological Administration);*
- 00:00 Simulation of Single Photon Emission from a Quantum Plasmonic Nanocube Using the Modified Langevin Noise Formalism  
*Jisang Seo (Pohang University of Science and Technology); Hyunwoo Choi (Pohang University of Science and Technology); Dong-yeop Na (Pohang University of Science and Technology);*
- 00:00 Exploring Nonreciprocity with Spatiotemporal Transformation Optics  
*Jiaxue Zhou (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology); Xiaofan Ji (Taiyuan University of Technology); Ruihang Deng (Taiyuan University of Technology); Qike Xie (Taiyuan University of Technology); Fei Sun (Taiyuan University of Technology);*
- 00:00 Wave Packets in a Composite Right/Left-handed Metamaterial Transmission Line Near Cutoff Frequencies  
*Tiantian Peng (Tomsk Polytechnic University); Y. Kryukov (Tomsk State University of Control Systems and Radioelectronics); D. Pokamestov (Tomsk State University of Control Systems and Radioelectronics); Rudolf V. Litvinov (Tomsk Polytechnic University);*
- 00:00 Resonant State Expansion in Acoustics  
*Egor Domoratskii (ITMO University); Nikolay Solodovchenko (ITMO University); Vladimir Dmitrievich Igoshin (ITMO University); Mihail I. Petrov (ITMO University); Yong Li (Tongji University); Andrey A. Bogdanov (Harbin Engineering University);*
- 00:00 Controlling Cherenkov Radiation for Particle Detection via Transverse-Electric Graphene Plasmons  
*Zhixiong Xie (Nanjing University of Aeronautics and Astronautics); Xiao Lin (Zhejiang University); Yu Luo (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics);*

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**Session 1A8**
**Intelligent Metasurfaces for Imaging, Display  
and Computation**


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**Tuesday AM, July 28, 2026**
**Room 8 - CR 11**

Organized by Yurui Qu, Hui Gao

 Chaired by Yurui Qu, Hui Gao
 

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- 00:00 Transformer-based Neural Network Enabled Subpixel-resolution in Wide-field Meta-microscope  
*Shanshan Hu (Nanjing University); Tao Li (Nanjing University);*
- 00:00 Metasurface-enabled Thermal Metrology: Advancing High-precision Thermometry through Engineered Dispersion  
Invited *Mu Ku Chen (City University of Hong Kong);*
- 00:00 AI-assisted Broadband Imaging with Metasurfaces  
Invited *Yaoguang Ma (Zhejiang University);*
- 00:00 Controlling the Multiple Degrees of Freedom in Optical Metasurfaces  
Invited *Bo Xiong (Zhejiang University); Yihan Li (Zhejiang University);*
- 00:00 MEMS-mirrors-coupled Bilayer Metasurfaces  
Invited *Fei Ding (Eastern Institute of Technology);*
- 00:00 Multichannel Light Manipulation and Holography Based on Metasurfaces and Liquid Crystals  
Invited *Wenjuan Du (Xiangtan University);*
- 00:00 Quantum Metasurface for Picometre-scale Displacement Sensing beyond the Diffraction Limit  
Invited *Lianwei Chen (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Wenyi Ye (Institute of Optics and Electronics, Chinese Academy of Sciences);*
- 00:00 Spatial Light Modulator via Optical Addressed Metasurface  
Invited *Hui Gao (Huazhong University of Science and Technology);*
- 00:00 Metasurface Enabled Multi-information Intelligent Visual Perception  
Invited *Yue Qiang Hu (Hunan University);*

- 00:00 Sub-diffraction Limit Quantum Metrology for Nanofabrication  
Invited

*Wenye Ye (Institute of Optics and Electronics, Chinese Academy of Sciences); Yang Li (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Lianwei Chen (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Mingbo Pu (Institute of Optics and Electronics, Chinese Academy of Sciences); Zheting Meng (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Yuanjian Huang (Fudan University); Hengshuo Guo (Tianfu Xinglong Lake Laboratory); Xiaoyin Li (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Yinghui Guo (Institute of Optics and Electronics, Chinese Academy of Sciences); Xiong Li (Institute of Optics and Electronics, Chinese Academy of Sciences); Yun Long (National Key Laboratory of Optical Field Manipulation Science and Technology, Chinese Academy of Sciences); Emmanuel Stratakis (Institute of Electronic Structure and Laser, Foundation for Research and Technology (FORTH)); Xiangang Luo (Institute of Optics and Electronics, Chinese Academy of Sciences);*

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**Session 1A9**
**Non-Hermitian and Resonant Phenomena in  
Acoustic Metastructures**


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**Tuesday AM, July 28, 2026**
**Room 9 - CR 12**

 Organized by Badreddine Assouar, Yong Li
 

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- 00:00 Bound States in the Continuum Emergence in Periodic Structures  
*Iliya Igorevich Karavaev (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);*
- 00:00 Investigation of Directional Scattering on Acoustic Metaatoms  
*I. Timankova (ITMO University); Mikhail Smagin (ITMO University); M. Kuzmin (ITMO University); Yong Li (Tongji University); Mihail I. Petrov (ITMO University);*
- 00:00 Topological Skin-effect in Acoustic Lossy Cavity Chains  
*Yu-Gui Peng (Huazhong University of Science and Technology); Yun-Kai Liu (Huazhong University of Science and Technology); Xuefeng Zhu (Huazhong University of Science and Technology);*
- 00:00 Uniguidded and Uncoupled Resonances in Acoustic Metasurface  
*Pavel Sergeevich Pankin (ITMO University); Daniil S. Buzin (Siberian Federal University); Dmitrii Nikolaevich Maksimov (Siberian Federal University); Y. Li (ITMO University); Mihail I. Petrov (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);*

- 00:00 Transverse Acoustic Kerker Effect  
*Mikhail V. Smagin (ITMO University); I. A. Timankova (ITMO University); Pavel Sergeevich Pankin (ITMO University); Mihail I. Petrov (ITMO University);*
- 00:00 Acoustic Metastructures Driven by External Magnetic Field  
*Daniil S. Buzin (Siberian Federal University); D. V. Kladko (ITMO University); A. M. Tsiboulya (ITMO University); M. V. Kuzmin (ITMO University); I. A. Timankova (ITMO University); Pavel A. Belov (ITMO University); Pavel Sergeevich Pankin (ITMO University); Y. Li (ITMO University); Andrey A. Bogdanov (Harbin Engineering University); Mihail I. Petrov (ITMO University);*
- 00:00 Symmetry-induced Dynamic Exceptional Point within Structured Vortex Fields for Ultrasensitive Metrology  
*Xiao Li (Nanjing University of Aeronautics and Astronautics); Yangyang Fu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Low-frequency Broadband Perforated Ventilated Acoustic Metamaterial  
*Yifan Zhu (Southeast University); Youyu Mo (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Topological Interface States beyond Fano Resonances in Piezoelectric Microacoustic Metamaterials: Bridging Topological Wave Physics and MEMS Sensing  
*Davide Pavesi (Northeastern University); Cristian Casella (Northeastern University);*
- 00:00 Degeneracy of Non-Hermitian Systems: From Exceptional Point to Exceptional Deficiency  
*Zhen Li (Hong Kong Baptist University); Guancong Ma (Hong Kong Baptist University);*
- 00:00 A Double Negative Acoustic Metamaterial Formed by Helmholtz Resonators  
*Nikolay Kanev (Research Institute of Building Physics);*
- 00:00 Acoustic Density of States and Coherent Sound Radiation  
*D. A. Klimov (ITMO University); Mikhail V. Smagin (ITMO University); Marc Dubois (Aix-Marseille Université); R. Abdeddaim (Aix-Marseille Université); Stefan Enoch (Aix-Marseille Université); Mihail I. Petrov (ITMO University);*
- 00:00 Synthetic Non-Abelian Gauge Fields for Photons  
Invited  
*Yi Yang (The University of Hong Kong);*
- 00:00 Brillouin Zone Folding Induced Spin-orbit-locking Chiral BIC and Quasi-BIC  
Invited  
*Hao-Chang Mo (Sun Yat-sen University); Xiao-Dong Chen (Sun Yat-sen University);*
- 00:00 Nonequilibrium Topological Phases on Programmable Quantum Processors  
Invited  
*Feng Mei (Shanxi University);*
- 00:00 Direction-dependent Dissipative Coupling in Photonic Cavities  
Invited  
*Gui-Geng Liu (Westlake University);*
- 00:00 Braiding Lasers on a Chip  
*Bofeng Zhu (Nanyang Technological University); Wenbo Mao (Washington University); Qi Jie Wang (Nanyang Technological University); Lan Yang (Washington University in St. Louis); Yidong Chong (Nanyang Technological University);*
- 00:00 Nonlinear Exceptional Point  
Invited  
*Meng Xiao (Wuhan University);*
- 00:00 Angular Momentum Conservation in Photonic Lattices with Nontrivial Band-touching  
Invited  
*Daohong Song (Nankai University);*
- 00:00 Anti-parity-time Symmetry in Photonic Topological Waveguides  
Invited  
*Shenglong Yang (Zhejiang University); Yuan-Zhen Li (Zhejiang University); Luqi Yuan (Shanghai Jiao Tong University); Hongsheng Chen (Zhejiang University); Fei Gao (Zhejiang University);*
- 00:00 Soliton Mediated by Skin-mode Localization and Band Nonreciprocity  
Invited  
*Kun Ding (Fudan University);*
- 00:00 Sensing with Non-Hermitian Exceptional Deficiency  
*Ziqi Wang (Hong Kong Baptist University); Guancong Ma (Baptist University of Hongkong);*
- 00:00 Chiral Superradiance Phenomena in Waveguide QED and Its Applications  
*Zhaohang Guo (Tianjin University); Wei Nie (Tianjin University);*
- 00:00 Controlling Wave Phases in NH Curved Space for Light: Non-hermitian Curved Space via Inverted Wave Equation  
*Chunjuan Zhang (Hubei University); Yangjie Liu (Hubei University); Zhu Mao (Hubei University); Bin Zhou (Hubei University); Benjamin Vial (Independent Researcher);*

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**Session 1A10**
**Advanced Topological and Non-Hermitian Light Manipulations**


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**Tuesday AM, July 28, 2026**
**Room 10 - CR 13**

Organized by Luqi Yuan, Guangzhen Li

 Chaired by Luqi Yuan, Guangzhen Li
 

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- 00:00 Band Topology Detection from Temporal Interface Effect  
Invited  
*Liang Jin (Nankai University);*

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**Session 1A11**
**High-dimensional Metamaterials: Fabrication, Integration, and Applications**


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**Tuesday AM, July 28, 2026**
**Room 11 - CR 15**

Organized by Hao Wang, Liaoyong Wen

 Chaired by Liaoyong Wen
 

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- 00:00 Aluminum 3D Lithography: Enabling High-dimensional  
Invited Metasurface for Advanced Sensing  
*Liaoyong Wen (Westlake University);*
- 00:00 Topological Integrated Photonic Chips for Terahertz  
Invited Wireless Communications  
*Wenhao Wang (Westlake University);*
- 00:00 Flexible Metasurface Deposition Using Transferable  
Layer  
*Yi Shen (Kyoto University); Tienyang Lo (Kyoto University); Taiki Takashima (Kyoto University); Shunsuke Murai (Osaka Metropolitan University); Katsuhisa Tanaka (Kyoto University);*
- 00:00 Deep Learning Empowered Intelligent Design of High-  
Invited dimensional Metamaterials  
*Jinfeng Zhu (Xiamen University);*
- 00:00 Compact and Broadband Optical Metamaterials for  
Invited Analog Processing and Image Computing  
*L. Yu (Tampere University); J. Pietila (Tampere University); H. J. Singh (Tampere University); A. Nieminen (Tampere University); Humeyra Caglayan (Eindhoven University of Technology);*
- 00:00 Three Printing Glass Opto-mechanical Elements  
Invited  
*Zhihan Hong (Shanghai Jiao Tong University);*
- 00:00 Optofluidic 3D Micro-/Nanofabrication of Multi-  
Invited material Micromachines  
*Mingchao Zhang (National University of Singapore);*
- 00:00 Three-dimensional Direct Laser Writing for Advanced  
Invited Optical Information Display  
*Qifeng Ruan (Harbin Institute of Technology, Shenzhen);*
- 00:00 High-resolution Nanoscale 3D Printing of Photonic  
Invited Crystals in the Visible Range  
*Wang Zhang (Hunan University);*
- 00:00 Multi-wavelength Light Manipulation by Designer High-  
dimensional Nanostructures  
*Cheng-Feng Pan (Singapore University of Technology and Design);*
- 00:00 Optical Metasurfaces for Imaging, Sensing, and Display  
Keynote  
*Junsuk Rho (Pohang University of Science and Technology (POSTECH));*
- 00:00 Shape-reconfigurable Structures for Dynamic Visible-to-  
Invited long-wave Infrared Multiband Regulation  
*Yujie Ke (Lingnan University);*

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**Session 1A12**
**Quantum State Manipulation and Its Device Applications 1**


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**Tuesday AM, July 28, 2026**
**Room 12 - CR 16**

 Organized by Hai-Ou Li, Xiang-Xiang Song
 

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- 00:00 Microwave Quantum Routing and Emission of a Single  
Artificial Atom  
*Aidar Sultanov (Leibniz Institute of Photonic Technology); E. Mutsenik (Leibniz Institute of Photonic Technology); L. Kaczmarek (Leibniz Institute of Photonic Technology); M. Schmelz (Leibniz Institute of Photonic Technology); G. Oelsner (Leibniz Institute of Photonic Technology); R. Stolz (Leibniz Institute of Photonic Technology); Evgeni Il'ichev (Leibniz Institute of Photonic Technology);*
- 00:00 Flux Engineering in Superconducting Quantum Devices  
Invited  
*Mingtang Deng (National University of Defense Technology);*
- 00:00 Spin-orbit Coupling and Stoichiometric Photogalvanic  
Invited Effect in Oxygen-substituted VSe<sub>2</sub>  
*Xu Li (Xiamen University); Shiming Wu (Xiamen University); Yaping Wu (Xiamen University); Zhiming Wu (Xiamen University); Junyong Kang (Xiamen University);*
- 00:00 Reconfigurable Photocurrent Response in Anisotropic  
Invited Semimetal Nb<sub>3</sub>SiTe<sub>6</sub> for Position Sensing  
*Qinsheng Wang (Beijing Institute of Technology);*
- 00:00 Universal Logical Operations in a Silicon Quantum Pro-  
Invited cessor  
*Yu He (Shenzhen International Quantum Academy);*
- 00:00 Emergent Moiré NEMS for Quantum Sensing  
Invited  
*Xin Zhang (Institute of Semiconductors, Chinese Academy of Sciences);*
- 00:00 Quantum Acoustoelectric Transport in Moiré Superlat-  
Invited tices  
*Cheng Zhang (Fudan University);*
- 00:00 Towards Scalable Silicon Quantum Computing: A  
Invited Donor-cluster Architecture for Logical Qubits and Chemical Simulation  
*Peihao Huang (International Quantum Academy (Shenzhen));*
- 00:00 Interplay of Hyperfine Interaction and Spin-Orbit Cou-  
Invited pling Effects on a Singlet-Triplet Hole Spin Qubit with High Quality Factor  
*Chenggang Yang (); Xiangjun Tan (); Jian Zeng (); Hongzhang Wang (); Zhanning Wang (); Wendong Bian (); Zhengshan Guo (); Jun Lu (); Jun-Wei Luo (); Tian Pei (Beijing Academy of Quantum Information Sciences);*

- 00:00 Transition Composite Gate and Its Application in Superconducting Quantum Circuit  
Invited  
*Sheng Zhang (University of Science and Technology of China); Yun-Jie Wang (University of Science and Technology of China); Peng Wang (University of Science and Technology of China); Zhao-Yun Chen (Hefei Comprehensive National Science Center); Yuchun Wu (University of Science and Technology of China); Peng Duan (University of Science and Technology of China); Guoping Guo (University of Science and Technology of China);*
- 00:00 Gate-controlled Zero-field Superconducting Diode and Andreev Molecule in Semiconducting Nanowire Hybrid Systems  
Invited  
*Ziwei Dou (Institute of Physics, Chinese Academy of Sciences); Xiaofan Shi (Institute of Physics, Chinese Academy of Sciences); Dong Pan (Institute of Semiconductors, Chinese Academy of Sciences); Guoan Li (Institute of Physics, Chinese Academy of Sciences); Jianhua Zhao (Institute of Semiconductors, Chinese Academy of Sciences); Jiangping Hu (Institute of Physics, Chinese Academy of Sciences); Li Lu (Institute of Physics, Chinese Academy of Sciences); Jie Shen (Institute of Physics, Chinese Academy of Sciences);*
- 00:00 Ultra-sensitive Magnetometry Using Levitated Magnets and Targeting Axion Dark Matter Searches  
Invited  
*Peiran Yin (Nanjing University);*
- 00:00 Microwave Sensing Based on Rydberg Atoms  
Invited  
*Yuechun Jiao (Shanxi University);*
- 00:00 Photocatalytic Control of Shallow Diamond Color Center Charge States  
Invited  
*Minghao Li (University of Basel); Josh A. Zuber (University of Basel); Marina Obramenko (University of Basel); Patrik Tognina (University of Basel); Andrea Corazza (University of Basel); Marietta Batzer (University of Basel); Marcelli Grimau Puigibert (University of Basel); Jodok Happacher (University of Basel); Patrick Maletinsky (University of Basel);*
- 00:00 Acceleration Noise Induced Decoherence in Stern-Gerlach Interferometers for Gravity Experiments  
*Meng-Zhi Wu (University of Groningen);*
- 00:00 High-sensitivity Atomic Magnetometers Based on Non-linear Magneto-optical Rotation  
*Liwei Jiang (Beihang University); Changhao Zhang (Beihang University); Jiali Liu (National Institute of Extremely-Weak Magnetic Field Infrastructure); Junlin Chen (Beihang University); Jiaqi Yang (Beihang University); Chi Fang (National Institute of Extremely-Weak Magnetic Field Infrastructure);*

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**Session 1A13**
**Quantum Sensing Methods and Applications**


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**Tuesday AM, July 28, 2026**
**Room 13 - CR 17**

 Organized by Yong-Chun Liu, Bei Liu
 

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- 00:00 Quantum Imaging and Quantum Measurement  
Invited  
*Lihong Wang (California Institute of Technology);*
- 00:00 High-sensitivity Operation of Unshielded Radio-frequency Atomic Magnetometers  
Invited  
*Han Yao (Nanjing University of Science and Technology); Ferruccio Renzoni (University College London);*
- 00:00 Levitated Sensor for Magnetometry in Ambient Environment  
Invited  
*Wei Ji (Peking University); Changhao Xu (Johannes Gutenberg-Universität Mainz); Guofeng Qu (Sichuan University); Dmitry Budker (Johannes Gutenberg-Universität Mainz);*
- 00:00 Ultra-high Sensitivity Portable Atomic Magnetometers  
Invited  
*Jixi Lu (Beihang University);*
- 00:00 Diamond Magnetometry: From Instrumentation to Application  
Invited  
*Yijin Xie (Zhejiang University);*
- 00:00 Receiver-level Quantum Enhancement for RF-photonic Imaging  
Invited  
*Zheshen Zhang (University of Michigan);*

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**Session 1A14a**
**Near-Zero-Index Photonics: Physics, Devices, and Applications**


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**Tuesday AM, July 28, 2026**
**Room 14 - VIP R5**

Organized by Qian Li, Jiaye Wu

 Chaired by Qian Li, Jiaye Wu
 

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- 00:00 Active and Nonlinear Epsilon-Near-Zero Photonics  
Invited  
*Howard Ho Wai Lee (University of California); Quynh Dang (University of California); David Dang (University of California); Aleksei Anopchenko (University of California); Christopher M. Gonzalez (University of California); Stuart Love (University of California); Yu-Hsun Chen (University of California); Leo Zheng (University of California); Meena Salib (University of California); Jimbo Zhang (University of California); Jack Wright (University of California); Michael Father (University of California); Lawrence Liu (University of California); Massee Akbar (University of California); Teo Reyes (University of California); Phoebe Chu (University of California);*

00:00 Ultrafast Thermo-optic Nonlinearity in Time-varying  
Invited Epsilon-Near-Zero Interfaces

*Jiaye Wu (Swiss Federal Institute of Technology Lausanne (EPFL)); Xuanyi Liu (Sun Yat-sen University); Marco Clementi (École Polytechnique Fédérale de Lausanne); Shuang Qiu (Sun Yat-sen University); Limin Lin (Sun Yat-sen University); Zhang-Kai Zhou (Sun Yat-Sen University); Camille-Sophie Bres (Ecole Polytechnique Federale Lausanne);*

00:00 Polarization-entangled Photon Pair Generation from an  
Invited Epsilon-near-zero Metasurface

*Yuanmu Yang (Tsinghua University);*

00:00 Manipulation of Epsilon-near-zero Platforms and Appli-  
Invited cations towards Complex Photonic Systems

*Qian Li (Peking University);*

00:00 Ultrafast Electron Dynamics and Extreme Nonlinear  
Invited Optics in Low-electron-density Drude Materials

*Ieng-Wai Un (South China Normal University); Subhajit Sarkar (Shiv Nadar Institution of Eminence Deemed to be University); Yonatan Sivan (Ben-Gurion University of the Negev);*

00:00 Cross-phase Modulation in Epsilon-Near-Zero Metasur-  
Invited faces

*R. Dhama (Tampere University); Md. I. Hossain (Tampere University); J. Pietila (Tampere University); T. Fordell (VTT Technical Research Centre of Finland Ltd, National Metrology Institute VTT MIKES); Humeyra Caglayan (Tampere University);*

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### Session 1A14b

#### Nanophotonics in Low-dimensional Materials and Their Applications 1

Tuesday AM, July 28, 2026

Room 14 - VIP R5

Organized by Yunyun Dai, Jiahua Duan

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00:00 High-pressure Tuning of Hyperbolic Plasmons in Black  
Invited Phosphorus

*Chong Wang (Beijing Institute of Technology);*

00:00 Novel Electronic States in 2D Semiconducting  
Invited Metastable Phase

*Jian Gou (Zhejiang University);*

00:00 Exotic Optical Phenomena of Strongly Anisotropic Po-  
Invited laritons at the Nanoscale

*Yixi Zhou (Central University for Nationalities);*

00:00 Boundary-induced Excitation of Higher-order Hyper-  
bolic Phonon Polaritons

*Na Chen (National Center for Nanoscience and Technology); Hanchao Teng (CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology); Hai Hu (CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology); F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); Rainer Hillenbrand (CIC nanoGUNE); Qing Dai (Shanghai Jiao Tong University);*

00:00 What is the Absorption Limit of a Two-dimensional  
Conductive Film?

*Jie Luo (Soochow University);*

00:00 Grating-engineered Asymmetric Steering and Functional  
Manipulation of Phonon Polaritons in van der Waals  
Materials

*Yali Zeng (Northwestern Polytechnical University); Yuancheng Fan (Northwestern Polytechnical University); Fuli Zhang (Northwestern Polytechnical University);*

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### Session 1A15

#### Advanced Materials and Devices for Optoelectronics and Photonics 1

Tuesday AM, July 28, 2026

Room 15 - CR 18

Organized by Kwang-Sup Lee, Jing Feng, Hitoshi Kasai

Chaired by Kwang-Sup Lee, Jing Feng

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00:00 Organic Mixed Ionic-Electronic Conductors for Pho-  
Keynotetothermal Interfaces

*Sinoh Park (Yonsei University); Eunkyong Kim (Yonsei University);*

00:00 PEDOT: PSS Conductive Polymers for Photo-thermal  
Invited Devices

*Yoon Kim (Hannam University); Hyunji Hwang (Hannam University); Jisoo Jung (Hannam University); Taedong Kim (Hannam University);*

00:00 Newly Designed Drug Delivery System by Using Nano-  
Invited prodrugs

*Hitoshi Kasai (Tohoku University);*

00:00 Sensory Neuromorphic Displays Enabling Health Moni-  
Invited toring and Therapy

*Cheolmin Park (Yonsei University);*

00:00 High-resolution Optoelectronic Devices Based on Fem-  
Invited tosecond Laser Precision Manufacturing

*Yue-Feng Liu (Jilin University);*

00:00 Ultrafast Laser Pathways to Extreme Selectivity Etching  
in Sapphire

*Pablo Roldan (Heriot-Watt University); Hannah Maybury (Heriot-Watt University); Bing Yan (Heriot-Watt University); Calum A. Ross (Heriot-Watt University); R. R. Thomson (Heriot-Watt University);*

- 00:00 Molecular Organization and Emergent Functionality in Optical Cavities  
Invited  
*Kenji Hirai (Hokkaido University);*
- 00:00 Block Copolymer Self-assembly for Photonics & Information Security  
Invited  
*Sangouk Kim (KAIST);*
- 00:00 Wavefront Engineered Laser Scanning Microscopy Enabling Rapid Three-dimensional Imaging  
Invited  
*Yuichi Kozawa (Tohoku University);*
- 00:00 Development of Organic Semiconducting Materials for Organic Electronics  
Invited  
*Yun-Hi Kim (Gyeongsang National University);*
- 00:00 Organic Semiconductor Single Crystals for Electromagnetic Radiation Detection and Sensing  
Invited  
*Fangxu Yang (Tianjin University);*

- 00:00 Moiré Cavity Quantum Electrodynamics  
Invited  
*Feng Liu (Zhejiang University);*
- 00:00 Temperature Induced Exciton Nonlinearities in All-TMDC Heterostructure Microdisk Resonators  
*Prokhor A. Alekseev (Ioffe Institute); I. A. Milekhin (Rzhanov Institute of Semiconductor Physics); K. A. Gasnikova (Ioffe Institute); M. E. Popov (Ioffe Institute); I. A. Eliseyev (Ioffe Institute); V. Yu. Davydov (Ioffe Institute); Vasily Kravtsov (ITMO University); A. O. Mikhin (ITMO University); A. G. Milekhin (Rzhanov Institute of Semiconductor Physics); A. Kostromyn (ITMO University); Olesiya Pashina (ITMO University); Mihail I. Petrov (ITMO University);*
- 00:00 Certification of Level Dynamics in Single-photon Quantum Light Emitters  
Invited  
*Lukáš Lachman (Palacký University); Ilya P. Radko (Technical University of Denmark); Maxime Bergamin (Technical University of Denmark); Ulrik L. Andersen (Technical University of Denmark); Radim Filip (Palacký University); Alexander Huck (Technical University of Denmark);*

- 00:00 When Free Electrons Meet Light: Quantum Interactions at the Nanoscale  
Invited  
*F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology);*
- 00:00 Momentum and Frequency Conversion in a Nonlocal Optical Metasurface under Spatiotemporal Modulation  
*Daniil A. Shilkin (Agency for Science, Technology and Research (A\*STAR)); R. Paniagua-Dominguez (Agency for Science, Technology and Research (A\*STAR)); S. T. Ha (Agency for Science, Technology and Research (A\*STAR)); A. I. Kuznetsov (Agency for Science, Technology and Research (A\*STAR));*
- 00:00 Crystalline Signatures in the Nonlinear Response of Gold and Silver Flakes  
Keynote  
*Sergejs Boroviks (Swiss Federal Institute of Technology Lausanne (EPFL)); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 Dark Optical Trapping for Quantum Control of Levitated Masses  
Invited  
*Anton V. Zasedatelev (Aalto University);*

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**Session 1A16**  
**Ultrafast and Nonlinear Nanophotonics 2**

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**Tuesday AM, July 28, 2026**

**Room 16 - CR 19**

Organized by Sergey V. Makarov, Costantino De Angelis, Kirill L. Koshelev, Mihail I. Petrov

Chaired by Kirill L. Koshelev, Mihail I. Petrov

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- 00:00 Nanoscale Light Confinement & Scattering: From Classical to Quantum On-chip Meta-devices  
Invited  
*Zhaogang Dong (Singapore University of Technology and Design);*
- 00:00 Gallium Phosphide Nanodevices for Generation and Control of Gigahertz Hypersonic Waves  
*Yifan Wang (Southern University of Science and Technology); Yongxian Yan (Southern University of Science and Technology); Yatao Yang (Southern University of Science and Technology); Yi Li (Southern University of Science and Technology);*
- 00:00 Quantum Tunneling Induced Nonlinear Optics in Plasmonic Nanocavities  
Invited  
*Dangyuan Lei (City University of Hongkong);*
- 00:00 Metamembranes for Linear, Nonlinear, and Tunable Optical Control  
Invited  
*Tal Ellenbogen (Tel-Aviv University);*
- 00:00 Tunable Nonlinearities of Nonlocal Free-electron Gas in Plasmonic Heavily Doped Semiconductors  
*Huatian Hu (Istituto Italiano di Tecnologia, Center for Biomolecular Nanotechnologies); Gonzalo Álvarez-Pérez (Italian Institute of Technology (IIT)); Antonio Valletta (Istituto per la Microelettronica e Microsistemi, Consiglio Nazionale delle Ricerche); Marialilia Pea (Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche); Michele Ortolani (Sapienza University of Rome); Cristian Ciraci (Istituto Italiano di Tecnologia, Center for Biomolecular Nanotechnologies);*

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**Session 1A17**  
**Metasurface Polarization and Diffraction Optics 2**

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**Tuesday AM, July 28, 2026**

**Room 17 - CR 20**

Organized by Zi-Lan Deng, Kun Huang, Xiangping Li  
Chaired by Zi-Lan Deng

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- 00:00 Planar Diffractive Lenses: Assisting Performance Improvement of Confocal Scanning Microscope  
*Jun He (University of Science and Technology of China); Kun Huang (University of Science and Technology of China);*
- 00:00 Generation of Complex-amplitude Fully-polarized Optical Fields via Metasurfaces  
*Qingsong Yao (Wuhan University); Zile Li (Wuhan University); Guoxing Zheng (Wuhan University);*
- 00:00 Metasurface-enabled Advanced Displaying  
Invited  
*Cheng Zhang (Huazhong University of Science and Technology);*
- 00:00 Metasurface-based Near- and Far-field Vector Holography  
Invited  
*Dandan Wen (Northwestern Polytechnical University);*
- 00:00 Metasurface Imaging and Angular Spectrum Differential Processing  
Invited  
*Lin Chen (Huazhong University of Science and Technology);*
- 00:00 Deep-subwavelength Mode Modulation in Microwave Plasmonic Metamaterials  
Invited  
*Xuanru Zhang (Southeast University);*
- 00:00 Nonlinear Directional Emission on Monolayer MoS<sub>2</sub> by Optical Orbit-orbit Coupling  
*Xianglong Wang (University of Science and Technology of China); Jincheng Ni (University of Science and Technology of China);*
- 00:00 A Dispersion-driven 3D Color Near-eye Meta-display  
*Zi Wang (Hefei University of Technology); Dong Zhao (University of Science and Technology of China); Li Liang (Hefei University of Technology); Hengyi Wang (Hefei University of Technology); Yuan Liu (Hefei University of Technology); Fangwen Sun (University of Science and Technology of China); Kun Huang (University of Science and Technology of China);*
- 00:00 Hybrid ENZ-dielectric Metasurfaces for Enhanced Light-matter Interaction  
*Xuanyi Liu (Sun Yat-sen University); Zhang-Kai Zhou (Sun Yat-Sen University);*
- 00:00 Photothermal Control of Silicon q-BIC Metasurfaces: From Visible Switching to Near-infrared Bistability  
Invited  
*Tianyue Zhang (Beijing University of Posts and Telecommunications); Ying Che (Jinan University); Peng Lu (Beijing University of Posts and Telecommunications);*
- 00:00 Metasurface Polarization Modulation, Detection and Imaging  
Invited  
*Yue Qiang Hu (Hunan University);*
- 00:00 Polarization Control via Artificial Optical Nonlinearity  
Invited in Dielectric Metasurfaces  
*Fuyong Yue (Centre Énergie Matériaux Télécommunications (INRS-EMT)); Giacomo Balistreri (Centre Énergie Matériaux Télécommunications (INRS-EMT)); Nicola Montaut (Centre Énergie Matériaux Télécommunications (INRS-EMT)); Fabrizio Riminucci (Università del Salento, Strada Provinciale Lecce-Monteroni, Campus Ecotekne); Andrea Toma (Istituto Italiano di Tecnologia); Riccardo Piccoli (Centre Énergie Matériaux Télécommunications (INRS-EMT)); Stefano Cabrini (Molecular Foundry, Lawrence Berkeley National Laboratory); Roberto Morandotti (Institut National de la Recherche Scientifique (INRS-EMT)); Luca Razzari (Université du Québec);*
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- Session 1A18**  
**Optical and Spectroscopic Tracking of Nanoscale Dynamics in Living Systems**
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- Tuesday AM, July 28, 2026**  
**Room 18 - VIP R8**  
Organized by Seok-Cheol Hong, Hyeon Jeong Lee  
Chaired by Seok-Cheol Hong, Hyeon Jeong Lee
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- 00:00 Surface-enhanced Raman Spectroscopy for Metabolite Detection in Serum  
Invited  
*Jian Ye (Shanghai Jiao Tong University);*
- 00:00 Label-free Optical Nanoscopy of Intracellular Trafficking in Living Cells  
Invited  
*Seok-Cheol Hong (Korea University);*
- 00:00 Nanomolar-sensitivity Chemical Imaging of Single Bacteria via Metasurface Photothermal Microscopy  
Invited  
*Siyang Peng (Westlake University);*
- 00:00 Periodic Stiffness Encoded in Genomes Governs DNA Mechanics  
Invited  
*Chanwoo Kim (Ulsan National Institute of Science and Technology); Hajin Kim (Ulsan National Institute of Science and Technology);*
- 00:00 How Do Cells Sense the Physical World: Measuring Integrin Force and Its Loading Rate  
Invited  
*Myung Hyun Jo (Korea University);*
- 00:00 Characterizing Spatiotemporal Alterations in Integrin Tension during Cancer Metastasis Using an Optical Single-molecule Force Probe  
Invited  
*Byoung Choul Kim (Yonsei University College of Medicine);*
- 00:00 Interferometric Label-free Imaging of Biological Nanoparticles in Solution  
*Il-Buem Lee (Korea university); Jin-Sung Park (Institute for Basic Science); Hyeon-Min Moon (Institute for Basic Science); Se-Hwan Lee (Institute for Basic Science); Seok-Cheol Hong (Korea University); Minhaeng Cho (Korea University);*

- 00:00 Nanoscale Imaging of Organelle Handoff from ER to Microtubules in Living Cells  
*Jin-Sung Park (Institute for Basic Science); Il-Buem Lee (Institute for Basic Science); Hyeon-Min Moon (Institute for Basic Science); Hyeonjun Jeon (Institute for Basic Science); Min Hyeong Lee (Korea University); ChungHo Kim (Korea University); Seok-Cheol Hong (Korea University); Minhaeng Cho (Korea University);*
- 00:00 Breaking the Diffraction Limit in Molecular Imaging by Structured Illumination Mid-infrared Photothermal Microscopy  
*Bo Chen (Zhejiang University); Liangyi Chen (Peking University); Hyeon Jeong Lee (Zhejiang University); De-long Zhang (Zhejiang University);*
- 00:00 Sensing Chemical Bonds by Fluorescence-detected Mid-infrared Photothermal Microscopy  
*Jingwen Duan (Zhejiang University); Hyeon Jeong Lee (Zhejiang University);*
- 00:00 Bio-chemical Visualization through Photothermal IR and Stimulated Raman Spectroscopy  
*Hailong Hu (Photothermal Spectroscopy Corp@China); Changlong Liu (Photothermal Spectroscopy Corp@China);*

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**Session 1A19**  
**Topological Photonics 1**

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**Tuesday AM, July 28, 2026**

**Room 19 - CR 27**

Organized by Jian-Hua Jiang, Mudi Wang, Meng Xiao

Chaired by Mudi Wang, Meng Xiao

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- 00:00 Exotic Band Engineering and Topological Physics with Synthetic Frequency Dimension  
Invited *Guangzhen Li (Shanghai Jiao Tong University); Luqi Yuan (Shanghai Jiao Tong University);*
- 00:00 Topological Photonic Crystal Fiber  
Invited *Bofeng Zhu (Nanyang Technological University); Qi Jie Wang (Nanyang Technological University); Yidong Chong (Nanyang Technological University);*
- 00:00 Three-dimensional Photonic Quantum Hall Effect of Fermi Arcs  
Invited *Zhengting Wu (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);*

- 00:00 Topological Antilaser  
Invited *Rui-Chang Shen (The Chinese University of Hong Kong); Chunquan Peng (University of Electronic Science and Technology of China); Bingbing Wang (The Chinese University of Hong Kong); Wentao Xie (The Chinese University of Hong Kong); Siyuan Zhang (The Chinese University of Hong Kong); Pei-Heng Zhou (University of Electronic Science and Technology of China); Baile Zhang (Nanyang Technological University); Yidong Chong (Nanyang Technological University); Hao-ran Xue (The Chinese University of Hong Kong);*
- 00:00 Millimeter-wave On-Chip Perfect Amplitude Modulation Based on Topological Photonic Crystal Chip  
*Lan Wang (University of Electronic Science and Technology of China); Zitong Huang (University of Electronic Science and Technology of China);*
- 00:00 Zero-order Landau Modes Propagating along Bulk and Edge Channels in an Aperiodic Acoustic Structure Enabled by a Synthetic Gauge Field  
Invited *Yu-Xin Fang (Foshan University); Wen-Hao Zhu (Foshan University); Yuhui Cai (Foshan University); Xi-Hui Li (Foshan University); Meng-Qi Zhang (Foshan University); Jiayao Huang (Foshan University); Zhaoxian Chen (Nanjing University); Yongyao Li (Foshan University); Shiqiao Wu (Foshan University);*
- 00:00 Multiple Unidirectional Valley-locked Chiral Zero Modes Arising from Large Chern Numbers  
Invited *Weiyuan Tang (The University of Hong Kong); Hsun-Chi Chan (The University of Hong Kong); Shaojie Ma (Fudan University); Chuang Tan (The University of Hong Kong); Biye Xie (The Chinese University of Hong Kong); Kazuki Hasebe (National Institute of Technology, Sendai College); Nicholas X. Fang (Massachusetts Institute of Technology); Shuang Zhang (The University of Hong Kong);*
- 00:00 Photonic Non-Abelian Topological Insulators  
Invited *Tianshu Jiang (Tongji University);*
- 00:00 A Connection between Two Phenomena: BICs as Topological Anchors of Nodal Lines  
Invited *Wenzhe Liu (Fudan University); Yuan-Song Zeng (City University of Hong Kong); Geng-Bo Wu (City University of Hong Kong); Che Ting Chan (The Hong Kong University of Science and Technology);*
- 00:00 Critical Topological Phase Transition  
Keynote *Baile Zhang (Nanyang Technological University);*
- 00:00 Arbitrary Eigenmode Reshaping Induced by Distributed Non-reciprocity in Non-Hermitian Systems  
Invited *Zhaomin Rong (Fudan University); Yu Chen (Southeast University); Yanan Bai (Fudan University); Tie Jun Cui (Southeast University); Lei Zhou (Fudan University); Shuo Liu (Southeast University); Shaojie Ma (Fudan University);*

**Session 1A20****Emergent Wave Physics in Zero-index and Exotic Metamaterials****Tuesday AM, July 28, 2026****Room 20 - CR 28**

Organized by Jie Luo, Yun Lai

Chaired by Jie Luo, Yun Lai

**Session 1A21****Free-Electron-Driven Photonic Platforms****Tuesday AM, July 28, 2026****Room 21 - CR 29**

Organized by Xihang Shi, Sunchao Huang

Chaired by Xihang Shi, Sunchao Huang

- 00:00 Nonadiabatic Temporal Modulations Based on Epsilon-near-zero Media  
Invited *Iñigo Liberal (Universidad Pública de Navarra, Campus Arrosadía);*
- 00:00 Analog Computing with Epsilon-near-zero Metamaterials  
Invited *Pengyu Fu (Tsinghua University); Yue Li (Tsinghua University);*
- 00:00 Integrated Nanophotonics with Structured Nanoscale Materials  
Invited *Danqing Wang (Fudan University);*
- 00:00 Non-Hermitian Zero-index Materials for Manipulating Exceptional Points  
Invited *Jie Luo (Soochow University);*
- 00:00 Invisible Sensors with Enhanced Sensitivity by Exotic Metamaterials  
Invited *Fei Sun (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology);*
- 00:00 Chiral Valley Edge States  
Invited *Wenjie Chen (Sun Yat-Sen University);*
- 00:00 Planar Near-Zero-Index Metamaterials for Radiation Engineering  
Invited *Ziheng Zhou (Fuzhou University);*
- 00:00 Achieving Polarization-independent Transformation-invariant Metamaterials  
*Tongshuang Tian (Zhejiang University); Dexin Ye (Zhejiang University);*
- 00:00 Topological Phase Singularities in Hybrid Polaritonic Systems  
*Youtao Huang (Tongji University); Zhiwei Guo (Tongji University);*
- 00:00 Interplay between Zero-index Media and Topology  
Invited *Changqing Xu (Nanjing Normal University); Ze-Guo Chen (Nanjing University); Ying Wu (King Abdullah University of Science and Technology (KAUST)); Yun Lai (Nanjing University);*
- 00:00 Dual-band Omnidirectional Scattering Suppression via Anisotropic Epsilon-near-zero Metamaterials  
*Wenjie Ji (Suzhou City University); Xiaoxi Zhou (Suzhou City University); Weixin Lu (Suzhou City University); Lei Gao (Suzhou City University); Denis Kislov (Moscow Center for Advanced Studies); Aleksandr Sergeevich Shalin (Moscow Institute of Physics and Technology); Jie Luo (Soochow University);*
- 00:00 Quantum Nanophotonics with Free Electrons  
Keynote *F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology);*
- 00:00 Spatiotemporal Probing of Free-electron-photon Interactions in Nanophotonic Structures via UTEM  
*Jun Li (Institute of Physics, Chinese Academy of Sciences); Huaxin Yang (Institute of Physics, Chinese Academy of Sciences); Jianqi Li (Institute of Physics, Chinese Academy of Sciences);*
- 00:00 Reversed Cherenkov Radiation via Fizeau-Fresnel Drag  
Invited *Bowen Zhang (Zhejiang University); Zheng Gong (Zhejiang University); Xiao Lin (Zhejiang University);*
- 00:00 Quantum Spectroscopy of Optical Near Fields Using Free Electron Rabi Oscillations  
Invited *Yiming Pan (ShanghaiTech University); Bin Zhang (ShanghaiTech University); Daniel Podolsky (ShanghaiTech University);*
- 00:00 Integrated Photonic Chips for Free-electron-photon Interactions  
Invited *Yujia Yang (Shenzhen International Quantum Academy);*
- 00:00 Enhanced Energy Conversion Efficiency in Free-electron Radiation via van der Waals Structures  
*Shichao Zhao (University of Electronic Science and Technology of China); Qianqian Li (University of Electronic Science and Technology of China); Ping Zhang (University of Electronic Science and Technology of China); Sunchao Huang (University of Electronic Science and Technology of China); Yubin Gong (University of Electronic Science and Technology of China);*
- 00:00 Free-electron Radiation from Highly-correlated Electron Beams  
Invited *Xihang Shi (Technion - Israel Institute of Technology); Sunchao Huang (University of Electronic Science and Technology of China); Aviv Karnieli (Solid State Institute and Faculty of Electrical & Computer Engineering, Technion); Ido Kamnir (Solid State Institute and Faculty of Electrical & Computer Engineering);*

- 00:00 Reconfigurable Electron-beam-driven Light Generation in Tunable Finite Arrays  
Invited  
*Eduardo J. C. Dias (University of Southern Denmark); Alvaro Rodríguez-Echarri (Max-Born-Institut); Theis P. Rasmussen (University of Southern Denmark); F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); Joel D. Cox (University of Southern Denmark);*
- 00:00 Out-of-Equilibrium Thermally Excited Plasmonic Hybrid Modes Electron Spectroscopy  
*David Corbella-Blanch (ICFO-Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); Cruz I. Velasco (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology);*
- 00:00 High-dimensional Entanglement with Orbital Angular Momentum States of Quantum Structured Free-electron  
*Leshi Zhao (Peking University); Jing Li (Peking University); Yunquan Liu (Peking University);*
- 00:00 Free Electrons as Flying Ancillas for Quantum Optical State Tomography  
*Yuhan Jiang (Peking University); Jing Li (Peking University); Dizuan Wu (Peking University); Yunquan Liu (Peking University);*
- 00:00 Indirect Multiphoton Scattering between Light and Bulk Plasmons via Ultrafast Free Electrons  
*Ruoyu Chen (ShanghaiTech University); Jun Li (Institute of Physics, Chinese Academy of Sciences); Qiaofei Pan (Tongji University); Dingguo Zheng (Institute of Physics, Chinese Academy of Sciences); Bin Zhang (Tel Aviv University); Ye Tian (Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences); Jianqi Li (Institute of Physics, Chinese Academy of Sciences); Huaixin Yang (Institute of Physics, Chinese Academy of Sciences); Yiming Pan (ShanghaiTech University);*
- 00:00 An APAR-based Method for Coastal Sea Surface Salinity Retrieval under Rainy Conditions  
*Wen Fan (Beijing Information Science and Technology University); Lanjie Zhang (Beijing Information Science and Technology University); Wenyu Wang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Circular Fourier-basis Selection for Solving Electromagnetic Inverse Scattering Problem  
*Qianlei Luo (Air Force Engineering University); Yulong Zhou (Air Force Engineering University); Huanhuan Yang (Air Force Engineering University); Tong Li (Air Force Engineering University); Tianhao Wu (Air Force Engineering University); Jing Zhou (Air Force Engineering University); Lei Shi (Air Force Engineering University);*
- 00:00 Dual-stream 1D-CNN with CBAM for Simultaneous Fault Diagnosis in Energy Storage Converters  
*Yuchen Zhang (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Qicao Chen (Southwest University of Science and Technology); Qi Wang (Southwest University of Science and Technology); Changjie Huang (Southwest University of Science and Technology);*
- 00:00 Design of an Efficient E-class Digital Power Amplification System for Medium-wave Communication  
*Yining Qing (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yonghao Lu (Southwest University of Science and Technology); Yong Li (Southwest University of Science and Technology); Qilong Yu (Southwest University of Science and Technology); Jie Deng (Southwest University of Science and Technology);*
- 00:00 Unsupervised Battery Consistency Detection via Pairwise Dynamic Time Warping and Isolation Forest  
*Hongrui Yu (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haotian Shi (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology); Rui Chen (Southwest University of Science and Technology);*
- 00:00 Study on Output Power of a WPT System Based on Dual-inverter Phase-shift Regulation  
*Hao Yang (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Guozheng Zhang (Southwest University of Science and Technology); Lei Zhao (Southwest University of Science and Technology); Xinyang Huang (Southwest University of Science and Technology);*
- 00:00 Design of a Low-temperature-coefficient and High-PSRR Bandgap Reference  
*Xiang Yin (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Chunyu Xia (Chengdu Technological University);*

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**Session 1A22a**

**Poster Session for Best Student Presentation Awards Competition - Part 2**

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**Tuesday AM, July 28, 2026**

**Poster Area**

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**Session 1A22b**

**Poster Session 2**

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**Tuesday AM, July 28, 2026**

**9:00 AM - 12:00 AM**

**Poster Area**

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- 00:00 Towards Edge Deployment: A Study on Lightweight Transformer-MLP Networks for Predictive Maintenance  
*Yi Fan Guo (Tongji University); De Liang Cao (Tongji University); Ya Ming Xie (Tongji University); Guo Chun Wan (Tongji University);*
- 00:00 Dielectric Properties of Liquid Media Based on a Single-pole Debye Model with Ionic Conduction  
*Hee-Jo Lee (Daegu University); Kyung-A Hyun (Sungshin Women's University);*
- 00:00 A 57–66 GHz SiGe BiCMOS Transmitter with a Power-scalable Power Amplifier and a Wide-tuning Phase-locked Loop  
*Yuqian Han (Guangzhou University); Lin Peng (Guangzhou University); Keshan Guo (Guangzhou University); Yibo Li (Guangzhou University); Yufan Xie (Guangzhou University); Yuming Su (Guangzhou University); Mengding Guo (Guangzhou University);*
- 00:00 Sum-difference Channel Fusion for Ground-based Radar LSS Target Detection  
*Xueyan Kang (National Space Science Center, Chinese Academy of Sciences); Yunhua Zhang (National Space Science Center, Chinese Academy of Sciences); Jiefang Yang (National Space Science Center, Chinese Academy of Sciences); Xiao Dong (National Space Science Center, Chinese Academy of Sciences); Wenshuai Zhai (National Space Science Center, Chinese Academy of Sciences); Na Liu (National Space Science Center, Chinese Academy of Sciences); Na Liu (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Magnitude Vector Fitting Algorithm Based on Maximum Absolute Error Control and Broadband  $S$ -parameter Modeling of Microwave Devices  
*Kaizhen Lv (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Shengzun Wang (Southwest University of Science and Technology); Hao-ran Li (Southwest University of Science and Technology); Zhen-Yong Du (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yixiang Li (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 New Approach for Development of Intense Low-energy Ion Beams Source for Ion Beam Figuring  
*Vadim A. Skalyga (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); I. V. Izotov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. V. Golubev (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. V. Polyakov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. S. Vybin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. E. Pestov (Institute for Physics of Microstructures of the Russian Academy of Sciences);*
- 00:00 Numerical Analysis of Modeling Nonlinear Dynamics in Ring Resonators  
*Denis Zurikovs (Riga Technical University); Kristaps Rubuls (Riga Technical University); Ints Murans (Riga Technical University); Patriks Moreus (Riga Technical University); Lu Zhang (Zhejiang University); Xianbin Yu (Zhejiang University); Xiaodan Pang (Zhejiang University); Vjaceslavs Bobrovs (Riga Technical University); Oskars Ozolins (Riga Technical University, Latvian Academy of Sciences);*
- 00:00 Recognition of Surface Defects on Targets Based on HRRP and Angle-aware Deep Learning  
*Jiahao Xu (Xidian University); Yue Li (Xidian University); Hao Li (National Key Laboratory of Electromagnetic Space Security); Yanchun Zuo (Xidian University); Lixin Guo (Xidian University); Wei Liu (Xidian University);*
- 00:00 500-Gbit/s Satellite-to-ground Optical Transmission over a 1000-km-equivalent Turbulent Link Based on PS-GMSK and Dual-polarization Reception  
*Linghang Dai (Key Laboratory of EMW Information (of Fudan University)); Zengyi Xu (Fudan University); Fang Dong (Fudan University); Zhe Feng (Fudan University); Yunkai Wang (Fudan University); Suning Guan (Key Laboratory of EMW Information (of Fudan University)); Nan Chi (Fudan University);*
- 00:00 Radiation Characteristics of Triangular Patch Array Antenna in Various Weighting Functions and Feeding Techniques  
*Achmad Munir (Institut Teknologi Bandung); Muhamad Roihan (Telkom University); Rizki Surya Permana (Telkom University); Muhammad Farhan Maulana (Telkom University); Rheyuniarto Sahlendar Asthan (Institut Teknologi Sumatera); Novelita Rahayu (National Research and Innovation Agency (BRIN)); Sulistyaningsih (Institut Teknologi Bandung); Junas Haidi (Institut Teknologi Bandung); Fakhrudin Ahmad Nasution (Institut Teknologi Bandung); Mohammad Ridwan Effendi (Institut Teknologi Bandung);*
- 00:00 A Robust STAP Algorithm for Sparse Array Based on Reweighted Atomic Norm Minimization  
*Zhigang Duan (National University of Defense Technology); Sui Wang (National University of Defense Technology); Chongyi Fan (National University of Defense Technology); Ziyu Han (National University of Defense Technology);*
- 00:00 GS3 and TDR Calibration for Organic and Organomineral Tundra Soils of the Norilsk Urban District  
*Andrey Yu. Karavayevskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences); Konstantin Victorovich Muzalevskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences);*

- 00:00 VO<sub>2</sub>-based Smart Windows for Transparent Radiative Thermal Control  
*Jaehyeong Kim (Yonsei University); Dongkyun Kang (Yonsei University); Jungwoo Pyo (Yonsei University); Hwajin An (Yonsei University); Myeongkyu Lee (Yonsei University);*
- 00:00 Fast Data Generation Algorithm for Electromagnetic Scattering Data of Aircraft with Defects  
*Chenge Shi (AVIC Xi'an Aircraft Industry Group Company Ltd.); Jiahao Xu (Xidian University); Wei Dong (AVIC Xi'an Aircraft Industry Group Company Ltd.); Yanchun Zuo (Xidian University);*
- 00:00 Accuracy of Fast Algorithm for Scattering by Low Scattering Target  
*Wen-Jing Chen (East China Research Institute of Electronic Engineering);*
- 00:00 Prediction of Equivalent Electromagnetic Parameters for Honeycomb Structures Based on a Deep Learning Dual-branch Network  
*Hao-Yang Yu (Beijing Institute of Technology); Ming-Lin Yang (Beijing Institute of Technology); Xin-Qing Sheng (Beijing Institute of Technology);*
- 00:00 Electromagnetic Compatibility Lifetime Prediction Method Based on Multi-physics Simulation Strategy  
*Yuan-Hui Huang (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd); Xin Cao (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Haiyan Guo (Southwest University of Science and Technology); Meiyang Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 PDN Impedance Flattening Method with Multi-capacitor Parallelization in Power Integrity  
*Zhongkun Feng (Southwest University of Science and Technology); Jiasheng Chen (Southwest University of Science and Technology); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Qiangming Cai (Southwest University of Science and Technology); Yujie Song (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 Research on Electromagnetic Scattering Characteristics Measurement Based on Vortex Wave  
*Xingyun Zhang (National Key Laboratory of Scattering and Radiation); Yang Bai (National Key Laboratory of Scattering and Radiation); Jiawei Huang (National Key Laboratory of Scattering and Radiation); Jingxuan Yang (National Key Laboratory of Scattering and Radiation); Fang Liu (National Key Laboratory of Scattering and Radiation);*
- 00:00 Robust Zero Backscattering in Duality-symmetric Non-Hermitian Systems  
*Yang Zhang (Soochow University); Jie Luo (Soochow University);*
- 00:00 Reversing Nonlinear Absorption of Resonant Aluminum Metasurfaces  
*Hailun Xie (Beijing University of Posts and Telecommunications); Lili Gui (Beijing University of Posts and Telecommunications); Kun Xu (Beijing University of Posts and Telecommunications);*
- 00:00 Laser-induced Terahertz Surface Plasmon Generation in Grating-coupled Bilayer Two-dimensional Electron Gases  
*Mi Tian (University of Electronic Science and Technology of China); Shengpeng Yang (University of Electronic Science and Technology of China (UESTC)); Shaomeng Wang (University of Electronic Science and Technology of China); Yubin Gong (University of Electronic Science and Technology of China); Chang Jian Tang (Sichuan University);*
- 00:00 A Force-detected Electron Spin Resonance Technique for Synchronous Measurement of Terahertz Wave Frequency and Power  
*Yuting Lu (Huazhong University of Science and Technology); Zengwen Wang (Huazhong University of Science and Technology); Shaozhe Zhang (Huazhong University of Science and Technology); Jianfeng Xie (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Xiaotao Han (Huazhong University of Science and Technology);*

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**Session 1P0**

**Hot Topics in Photonics and Electromagnetics**

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**Tuesday PM, July 28, 2026**

**Room 0 - Chongshan Hall A**

Organized by Sailing He

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- 00:00 Sustainable Manufacturing of Optical Metasurfaces with Hot Engineered Optical Materials Topic  
*Junsuk Rho (Pohang University of Science and Technology (POSTECH));*

- 00:00 Maxwell's Equations for a Mechano-driven Media System Theory Fundamental Theory and Experimental Verifications  
Hot Topic  
*Zhong Lin Wang (Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences);*
- 00:00 The Case for Timetronics  
Hot Topic  
*Nikolay I. Zheludev (University of Southampton);*
- 00:00 AI in Review Writing: What Is Allowed, What Is Not — A Nature Reviews Electrical Engineering Perspective  
Hot Topic  
*Rachel Pei Chin Won (Nature Reviews Electrical Engineering);*
- 00:00 Photoacoustic, Light-speed, and Quantum Imaging/Physics  
Hot Topic  
*Lihong Wang (California Institute of Technology);*
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- Session 1P1**  
**Pioneering Advances in Spaceborne Remote Sensing and Data Assimilation: Observations, Retrievals, Theoretical Frameworks, and AI Innovations 2**
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- Tuesday PM, July 28, 2026**  
**Room 1 - CR 1**  
Organized by Lei Bi, Wei Han, Xianglei Huang  
Chaired by Lei Bi
- 
- 00:00 Retrieval of Aerosol Scattering Phase Function and Polarized Phase Function from Spaceborne Multiangle Polarimetric Observations  
*Jiachen Ding (Nanjing University);*
- 00:00 Assimilating All-sky Satellite Radiance Data for Binary Typhoon Forecasting Using the POD-3D-EnVar Method  
*Mingyang Zhang ();*
- 00:00 AI-driven Reconstruction of WRF-Chem Aerosol Fields Using Spaceborne Lidar  
*F. Hu (Wuhan University); Feiyue Mao (Wuhan University);*
- 00:00 Small Satellite Humidity Sounding for Global NWP: First Evaluation of CAMS on TY-16 in the CMA-GFS 4D-Var system  
*Shuting Zhou (Chengdu University of Information Technology); Wei Han (Center for Earth System Modelling and Prediction, CMA); Zeting Li (Nanjing University of Information Science and Technology); Zhenzhan Wang (National Space Science Center/Center for Space Science and Applied Research, Chinese Academy of Sciences); Keyi Chen (Chengdu University of Information Technology); Bin Li (Beijing Guoxin Hangyu Aerospace Technology Co., Ltd.);*
- 00:00 PCRF: An Independent Cloud Detection Framework for FY-4B GIIRS Hyperspectral Infrared Sounder Using PCA Reconstruction and Random Forest  
*Kang Zhou (Nanjing University of Information Science and Technology); Wei Han (Center for Earth System Modelling and Prediction, CMA); Ruoying Yin (Center for Earth System Modelling and Prediction, CMA); Jinhua Yu (Nanjing University of Information Science and Technology); Zhiqiu Gao (Institute of Atmospheric Physics, Chinese Academy of Sciences);*
- 00:00 PhySCAT-Net: A Physics-informed Deep Learning Framework for Optimizing Hydrometeor Bulk Scattering Properties Using Satellite Observations  
*Zeting Li (Nanjing University of Information Science & Technology); Wei Han (Center for Earth System Modelling and Prediction, CMA); Hejun Xie (Zhejiang University); Xiaoze Xu (Shanghai Academy of Artificial Intelligence for Science (SAIS)); Lei Bi (Zhejiang University); Xiuyu Sun (Shanghai Academy of Artificial Intelligence for Science (SAIS)); Hao Li (Shanghai Academy of Artificial Intelligence for Science (SAIS));*
- 00:00 Application of Super-spheroid and Hexahedron Models to Account for Particle Nonsphericity in Retrieval of Aerosol Properties Using GRASP Algorithm  
*Wushao Lin (GRASP-SAS); Oleg Dubovik (Univ. Lille); Anton Lopatin (GRASP-SAS); Tatyana Lapyonok (Univ. Lille); Masahiro Momoi (GRASP-SAS); Olga Muñoz (Instituto de Astrofísica de Andalucía, Glorieta de la Astronomía); Greema Regmi (University of Maryland Baltimore County); Espinosa W. Reed (NASA Goddard Space Flight Center); Masanori Saito (University of Wyoming); Lei Bi (Zhejiang University);*
- 00:00 AI-empowered Microwave Interferometric Radiometry  
*Hao Liu (Center for Space Science and Applied Research, Chinese Academy of Sciences);*
- 00:00 Study on Reconstructing Aerosol Optical Depth in Cloud-covered Areas of Landsat Imagery Based on a Spatiotemporal Masked Transformer  
*Yunfei Ye (Shenzhen University); Wenjuan Qi (Shenzhen University); Zike Xu (Shenzhen University); Huizeng Liu (Shenzhen University); Guanglang Xu (Shenzhen University);*
- 00:00 Efficient Aerosol Retrieval via a Hybrid Mamba and Transformer Network  
*Zike Xu (Shenzhen University); Wenjuan Qi (Shenzhen University); Yunfei Ye (Shenzhen University); Huizeng Liu (Shenzhen University); Guanglang Xu (Shenzhen University);*
- 00:00 Seamless High-resolution AOD Retrieval via Generative Models and Multi-dimensional Heterogeneous Data Fusion  
*Wenjuan Qi (Shenzhen University); Zike Xu (Shenzhen University); Yunfei Ye (Shenzhen University); Huizeng Liu (Shenzhen University); Guanglang Xu (Shenzhen University);*

00:00 Passive Remote Sensing of Aerosol Vertical Distribution: Theory and First Results  
*Jun Wang (University of Iowa); Zhendong Lu (University of Iowa); Xi Chen (University of Iowa);*

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**Session 1P2**

**Electromagnetic Inverse Problems: Challenges, Methods, and New Directions**

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**Tuesday PM, July 28, 2026**

**Room 2 - CR 2**

Organized by Martina Teresa Bevacqua, Rocco Pierri  
 Chaired by Raffaele Solimene

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00:00 Extending Reconstruction Capabilities of Virtual Experiments Based Inversion Methods  
*Martina Teresa Bevacqua (Università Mediterranea di Reggio Calabria); Tommaso Isernia (Mediterranea University of Reggio Calabria); Loreto Di Donato (University of Catania);*

00:00 Forward and Inverse Modeling of Mesoscopic Optical Microscopy Using the Radiative Transfer Equation  
*Yingying Qin (UiT The Arctic University of Norway); Krishna Agarwal (UiT The Arctic University of Norway); Yu Zhong (FINIAC Pte Ltd. Singapore);*

00:00 Real-time Imaging of Conductive Materials through the Kernel Method  
*Antonello Tamburrino (University of Cassino and Southern Lazio); V. Mottola (University of Cassino and Southern Lazio);*

00:00 Inverse Scattering Approach to Inverse Design of Shared-aperture Multiband Antenna  
*Xudong Chen (National University of Singapore); Yujie Zhang (Nanyang Technological University);*

00:00 AI for Electromagnetics and High-dimensional Inverse Design of Electromagnetic Structure  
*Zhun Wei (Zhejiang University);*

00:00 Degrees of Freedom and Data Space Dimension in Electromagnetic Inverse Scattering  
*Raffaele Solimene (Università degli Studi della Campania Luigi Vanvitelli); Maria Antonia Maisto (Università degli Studi della Campania Luigi Vanvitelli); Rocco Pierri (Università degli Studi della Campania Luigi Vanvitelli);*

00:00 High-performance GPU-accelerated MLFMA for Equivalent Source Reconstruction of 3-D Surfaces  
*Zhuoping Tang (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);*

00:00 Dielectric Profile Reconstruction of Stratified Media: A Super-resolving Approach  
*Mario Del Prete (Università degli Studi della Campania Luigi Vanvitelli); Maria Antonia Maisto (Università degli Studi della Campania Luigi Vanvitelli);*

00:00 Recent Advances in 1D Inverse Scattering Problems as Applied to NDT of Layered Media and Plasma Diagnostics  
*Shaimaa Elseddiq Abuelsaud Ali Elghetany (University of Catania); Roberto Dima (Università degli Studi della Campania "Luigi Vanvitelli"); Maria Antonia Maisto (Università degli Studi della Campania Luigi Vanvitelli); Gino Sorbello (University of Catania); Raffaele Solimene (Università degli Studi della Campania Luigi Vanvitelli); Loreto Di Donato (University of Catania);*

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**Session 1P3**

**Emerging Remote Sensing Technologies for Hydrology**

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**Tuesday PM, July 28, 2026**

**Room 3 - CR 3**

Organized by Jianguan Zeng, Xiang Zhang  
 Chaired by Jianguan Zeng, Xiang Zhang

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00:00 A Novel Physics-informed Deep Learning Network (PID-Net) for Vegetation Optical Depth Downscaling: Algorithm, Assessment and Inter-comparison  
*Xiang Zhang (China University of Geosciences); Dunyue Cui (China University of Geosciences);*

00:00 Monitoring Coastal Aquaculture Ponds Using Deep Learning and Remote Sensing Time-series in Zhoushan Archipelago, China  
*Chao Chen (Suzhou University of Science and Technology); Xingbai Hu (Zhejiang Ocean University);*

00:00 A Spatio-Temporal Causality-constrained Framework for Intelligent Fusion and Downscaling of Multi-source Precipitation Data  
*Xiang Zhang (China University of Geosciences); Lihua Zhang (China University of Geosciences (Wuhan));*

00:00 High-Resolution Soil Moisture Retrieval Based on Dual-Polarimetric Decomposition and Multi-Scale Downscaling Algorithm Using Sentinel-1 SAR Data  
*Qing Wu (China University of Mining and Technology); Hongtao Shi (China University of Mining and Technology);*

00:00 Afforestation and Conservation of Old Forests Demonstrate Comparable Cooling Effect in China  
*Zhijiang Zhang (Suzhou University of Science and Technology); Lunche Wang (China University of Geosciences);*

00:00 Sea Surface Scattering Models and Spectral Impacts on GNSS-R DDM Simulation: A Quantitative Evaluation  
*Zhiwei Dai (Nanjing Tech University); Dengfeng Xie (Nanjing Tech University);*

- 00:00 The Impact of Precipitation Microphysical Processes on Radar Echoes  
*Yu Liu (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences); Chen Zhu (National Meteorological Information Center); Lingling Ge (National Meteorological Information Center); Zhi Zhu (National Meteorological Information Center);*
- 00:00 VIIRS VNP15A2H Leaf Area Index Reconstruction with Preserved Flood-drought Response Signatures  
*Dongdong Kong (China University of Geosciences); Lunche Wang (China University of Geosciences); Yongqiang Zhang (Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences); Xihui Gu (China University of Geosciences); Xiang Zhang (China University of Geosciences); Guicai Li (China Meteorological Administration);*
- 00:00 Exploring the Potential of Satellite Precipitation Products for AI-based Large-sample Hydrological Modeling  
*Han Meng (Wuhan University); Guoqiang Tang (Wuhan University);*
- 00:00 An Innovative Framework for Hourly Satellite Soil Moisture Retrieval via Integrated Spatiotemporal Downscaling Techniques  
*Peilin Song (Xi'an Jiaotong University); Mengran Wang (Xi'an Jiaotong University); Lixin Dong (China Meteorological Administration); Tianjie Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Jingyao Zheng (Aerospace Information Research Institute, Chinese Academy of Sciences); Haigen Zhao (Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences); Jingfeng Huang (Zhejiang University); Panpan Yao (North China University of Water Resources and Electric Power); Yongqiang Zhang (Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences);*
- 00:00 Lake Water Storage and River Discharge Monitoring in Data-scarce Regions via Above — Underwater Topographic Similarity  
*Shanlong Lu (Aerospace Information Research Institute, Chinese Academy of Sciences); Yuan Guo (International Research Center of Big Data for Sustainable Development Goals); Junling Zhang (International Research Center of Big Data for Sustainable Development Goals); Cong Du (International Research Center of Big Data for Sustainable Development Goals);*
- 00:00 AIEM-constrained PINNs for Ocean SAR Scattering  
*Mingde Guo (Qian Yuan Laboratory);*

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**Session 1P4**  
**Advances in Electromagnetic Wave Propagation and Scattering: Theory, Modeling, and Applications**

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**Tuesday PM, July 28, 2026**

**Room 4 - CR 8**

Organized by Hao Qin, Xinyue Zhang

Chaired by Hao Qin

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- 00:00 Towards a Learning-driven Framework for Bidirectional Wave Propagation Modeling over Irregular Terrain  
*Hao Qin (Sichuan University);*
- 00:00 Electromagnetic Graph Neural Networks for Zero-shot Generalization in Indoor Radio Wave Propagation  
*Haochang Wu (University College Dublin); Hao Qin (Sichuan University); Xinyue Zhang (University College Dublin); Xingqi Zhang (University of Alberta);*
- 00:00 A Study of Seasonal Features of Distance-frequency Characteristics during Radio Wave Propagation in the Earth's Ionosphere  
*Nikita D. Aniutin (Russian New University); Andrew S. Kryukovsky (Russian New University); A. D. Didenkul (Russian New University); E. V. Mikhaleva (Russian New University); Dmitry V. Rastyagaev (Russian New University);*
- 00:00 The Extraction of the Coupling Scattering Characteristics of Point Clouds  
*Dilong Wu (Xidian University); Danyang Li (Xidian University); Yanchun Zuo (Xidian University); Lixin Guo (The Xidian University); Wei Liu (The Xidian University);*
- 00:00 Time-varying Analysis of HRRP Characteristics of Corner Reflector Arrays in Dynamic Sea Environments  
*Danyang Li (Xidian University); Dilong Wu (Xidian University); Yanchun Zuo (Xidian University); Rui Wang (Xidian University); Wei Liu (Xidian University);*
- 00:00 On the Existence of Pure Toroidal Dipoles: An Angular Spectrum Demonstration  
*Sinuhe Perea (Universidad De Burgos);*
- 00:00 Fast Optimization of Metasurface Generated Holographic Images in the Presence of Environmental Disturbances  
*Tom. J. Smy (Carleton University); Shulabh Gupta (Carleton University); Pavan Gunupudi (Carleton University); Abdullah S. Karar (Abdullah Al-Salem University (AASU));*
- 00:00 Reflection and Transmission of Nonuniform Plane Waves at Charged Planar Interfaces between Two Lossy Isotropic Media  
*Zhili Lin (Huaqiao University);*
- 00:00 Reflection and Transmission of Laser Beams from Arbitrary Lossy Bianisotropic Metamaterials  
*Zhili Lin (Huaqiao University);*

- 00:00 The Mode Content Analysis of the Radiating Waveguide  
*Aleksandr A. Bogdashov (Institute of Applied Physics, Russian Academy of Sciences); Mikhail Yu. Glyavin (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. A. Orlovskiy (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Design and Optimization of Tamm Plasmon Resonance Sensors Using Bayesian Optimization  
*Lujiang Qian (Skolkovo Institute of Science and Technology); Nikolay Yavich (Skolkovo Institute of Science and Technology); Alexander Ryabov (Skolkovo Institute of Science and Technology); Vladimir Vanovskiy (Skolkovo Institute of Science and Technology); Vasily A. Fedotov (Skolkovo Institute of Science and Technology);*
- 00:00 Research on the Two-way Split-step Wavelet Method for Electromagnetic Wave Propagation in the Presence of Obstacles  
*Qi Wang (Xi'an University of Posts and Telecommunications); Chao Yang (Xi'an University of Posts and Telecommunications); Weiqi Du (Xi'an University of Posts and Telecommunications); Xinyuan Liu (Xi'an University of Posts and Telecommunications);*
- 00:00 NWP-based Multi-scale Atmospheric Refractivity Modeling for LEO Satellite Link Analysis  
*Bowoo Jang (Pohang University of Science and Technology (POSTECH)); Hyeonjun Gwon (Pohang University of Science and Technology (POSTECH)); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 Quantum Annealing-inspired Optimization for Antenna Array Beamforming  
*Shuai S. A. Yuan (Aalto University); Wei E. I. Sha (Zhejiang University);*
- 00:00 An Adaptive Oriented Optimization for DBF Beam Pattern Recovery  
*Junchi Lv (Zhejiang University); Baixiang Chen (Zhejiang University); Jiacheng Dai (Zhejiang University); Jiangtao Huangfu (Zhejiang University); Jun Tang (Zhejiang University);*
- 00:00 High Figure-of-Merit Bent Liquid Crystal Phase Shifter for 2-D Ku-band Circular Polarized Phased Array  
*Junyi Lv (Southeast University); Fan Wu (Southeast University);*
- 00:00 Beamforming Control Method via Antenna Array Elements Displacement  
*Baixiang Chen (Zhejiang University); Junchi Lv (Zhejiang University); Jiacheng Dai (Zhejiang University); Jiangtao Huangfu (Zhejiang University); Jun Tang (Zhejiang University);*

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**Session 1P5b**
**Advanced Antenna and Circuit Design  
Techniques for Wireless Communication**


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**Tuesday PM, July 28, 2026**
**Room 5 - CR 9**

Organized by Junbing Duan, Henghui Wang

 Chaired by Junbing Duan
 

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**Session 1P5a**
**Advanced Antenna Array Beamforming for  
MIMO Systems: Hardware Design and  
Algorithms**


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**Tuesday PM, July 28, 2026**
**Room 5 - CR 9**

Organized by Shuai S. A. Yuan, Li Wei

 Chaired by Shuai S. A. Yuan
 

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- 00:00 Ultra-compact Transmitarray Plane Wave Generator Using Spline-constrained Near-field Synthesis  
*Siqi Bai (Southeast University); Le Yu (Southeast University); Xiaolong Wang (Beijing University of Posts and Telecommunications); Wei Fan (Southeast University); Fengchun Zhang (Aalborg University);*
- 00:00 Wind-disturbance-tolerant UAV High-energy-efficiency Beamforming and Power Allocation Scheme Based on Random Multiplexing  
*Jichong Guo (Suzhou University of Science and Technology); Keer Chen (Suzhou University of Science and Technology); Chunxia Su (Suzhou University of Science and Technology); Heng Luo (Suzhou University of Science and Technology); Zhiqiang Li (Harbin Institute of Technology);*
- 00:00 Proposal and Analysis of the Fixed Beam Pointing Leaky-wave Antenna Based on Negative Group Delay Effect  
*Junbing Duan (Southwest Jiaotong University); Lei Zhu (University of Macau); Cheng Liao (Southwest Jiaotong University); Sheng Sun (University of Electronic Science and Technology of China);*
- 00:00 Design of a Ku-band Dual-passband Filter with High Selectivity Based on Double-layer Groove Gap Waveguide  
*Jinpeng Bian (Nanjing Normal University); Zai-Cheng Guo (Nanjing Normal University); Gang Zhang (Nanjing Normal University);*
- 00:00 A Multi-layer Rotationally Reconfigurable Antenna  
*Zhihui Wang (Zhejiang University); Long Chen (Zhejiang University); Peiqin Zhou (Zhejiang University); Hongliang Song (Zhejiang University); Zehan Zhao (Zhejiang University); Jiangtao Huangfu (Zhejiang University);*
- 00:00 Design of a Miniaturized High-power Microwave Filter  
*Henghui Wang (China Electronics Technology Group Corporation Fourteenth Research Institute); Long Liu (Nanjing Research Institute of Electronics Technology);*
- 00:00 Low-RCS Wideband Circularly Polarized Antenna Using Microstrip Line Filters and Square Ring Absorber  
*Tian-Xi Feng (Dalian University of Technology);*

- 00:00 A Coplanar Stripline Leaky-wave Antenna with Full-space Radiation in the Horizontal Plane  
*Runze Liu (University of Electronic Science and Technology of China); Junbing Duan (Southwest Jiaotong University); Henghui Wang (China Electronics Technology Group Corporation Fourteenth Research Institute); Sheng Sun (University of Electronic Science and Technology of China);*
- 00:00 A Synthesis Design of Low-sidelobe SIW Leaky-wave Antenna with Via-based Phase Compensation  
*Zuozhou Pan (University of Electronic Science and Technology of China); Junbing Duan (Southwest Jiaotong University); Henghui Wang (China Electronics Technology Group Corporation Fourteenth Research Institute); Sheng Sun (University of Electronic Science and Technology of China);*
- 00:00 A Miniaturized Dual-band H-slot Textile Antenna for Wearable Applications  
*Lu Yi Liu (Tongji University); Yu Zhu Gao (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 MXenes Based High Power Millimeter-wave Distributed Invited Dummy Load  
*Wenjie Fu (University of Electronic Science and Technology of China); Dun Lu (University of Electronic Science and Technology of China);*
- 00:00 Design and Research on a Compact, High-efficiency S-band Coaxial Relativistic Backward Wave Oscillator  
*Tengfang Wang (National University of Defense Technology); Peng Zhang (National University of Defense Technology); Rujin Deng (National University of Defense Technology); Xingjun Ge (National University of Defense Technology);*
- 00:00 Multicharged Ion Beam Production Using ECR Plasma with 37, 75 and 83 GHz Gyrotron Heating  
*Vadim A. Skalyga (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); I. V. Izotov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. V. Golubev (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. V. Polyakov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. V. Razin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. S. Vybin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*

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**Session 1P6**

**High Power Microwaves: Sources and Applications 2**

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**Tuesday PM, July 28, 2026**

**Room 6 - CR 10**

Organized by Mikhail Yu. Glyavin, Nikolai Yu. Peskov,  
Wenjie Fu

Chaired by Mikhail Yu. Glyavin, Wenjie Fu

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- 00:00 A Novel Measurement System for Broadband Frequency and Amplitude Characterization of a 263 GHz Gyro-TWT Amplifier  
*Benjamin Bischofberger (IHM Karlsruhe Institute of Technology (KIT)); Max Vöhringer (IHM Karlsruhe Institute of Technology (KIT)); Moritz Misko (IHM Karlsruhe Institute of Technology (KIT)); Alexander Marek (Fraunhofer-Institute for High-Frequency Physics and Radar Techniques (FHR)); Stefan Illy (IHM Karlsruhe Institute of Technology (KIT)); Manfred Thumm (IHM Karlsruhe Institute of Technology (KIT)); John Jelonnek (Institute for Pulsed Power and Microwave Technology, Karlsruhe Institute of Technology);*
- 00:00 Development of Sub-MW Power W-band Cherenkov Invited Masers Based on Mildly-relativistic Electron Beams for Plasma Diagnostics Systems  
*Nikolai Yu. Peskov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Vladislav Yu. Zaslavsky (Institute of Applied Physics, RAS); Naum Samuilovich Ginzburg (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Anastasia A. Savilova (Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 Towards Proof-of-principle Demonstration of Chirped-pulse-amplification Method in Microwave Electronics  
*Naum Samuilovich Ginzburg (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); L. A. Yurovskiy (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Irina Valerievna Zotova (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Roman Markovich Rozental (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Sergey V. Samsonov (A.V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 Optimization of Parameters of Gyrotron Rectifiers for Wireless Power Transmission  
*Vladimir Nikolaevich Manuilov (Institute of Applied Physics RAS); Irina Valerievna Zotova (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Andrey Mihailovich Malkin (Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 Design and Experimental Demonstration of a High-power Triple-band Waveguide Slot Antenna  
*Yunfei Sun (National University of Defense Technology); Chenbo Hua (National University of Defense Technology); Lulu Jin (National University of Defense Technology); Chengwei Yuan (National University of Defense Technology); Xingjun Ge (National University of Defense Technology);*

- 00:00 A Ka-band Circularly Polarized Back-cavity Directional High-power Antenna Array Based on Waveguide Slot Array  
*Liang Liu (Southwest University of Science and Technology); Andong Shi (Southwest University of Science and Technology); Yu Wang (Southwest University of Science and Technology); Yipeng Gao (Southwest University of Science and Technology); Qi Chen (Southwest University of Science and Technology);*
- 00:00 Development of a High-resolution Spectral Measuring System at Frequency Range of 0.2–0.3 THz for Experiments on Radiation Generation in the Beam-plasma System  
*Denis A. Samtsov (Budker Institute of Nuclear Physics RAS); Evgeny S. Sandalov (Budker Institute of Nuclear Physics RAS); Petr V. Kalinin (Budker Institute of Nuclear Physics RAS); Andrey V. Arzhannikov (Budker Institute of Nuclear Physics RAS); Sergei Alexandrovich Kuznetsov (Novosibirsk State University);*
- 00:00 Enhanced Water Reclamation from Greenhouse Effluents near the Mar Menor Using Microwave-based Evaporation Technologies  
*Juan Monzó-Cabrera (Universidad Politécnica de Cartagena); Alejandro Diaz-Morcillo (Universidad Politécnica de Cartagena); José Gadea-Rodríguez (Universidad Politécnica de Cartagena);*
- 00:00 Broadband and High-efficiency Generation of Non-diffracting Airy and Bessel Beam via All-dielectric Metasurface  
*Yongchen Miao (Tongji University); Zhiwei Sun (Suzhou Laboratory); Tong Xu (Suzhou Laboratory); Junfei Wang (Suzhou Laboratory); Bolin Zhou (Suzhou Laboratory); Yuzhen Zheng (Suzhou Laboratory); Xinrui Wang (Suzhou Laboratory); Jiahao Dong (Tongji University); Yu He (Tongji University); Yifan Zhou (Tongji University); Xiaoqi Yu (Suzhou Laboratory); Kanglin Xiong (Suzhou Laboratory); Huaibing Wang (Suzhou Laboratory); Pengyan Wen (Tongji University); Hui Yang (Suzhou Laboratory);*
- 00:00 Cascaded Metasurface-based High-channel Dynamic Holographic Display via Convolutional Multiplexing  
*Yijin Wang (University of Electronic Science and Technology of China); Hao Wang (University of Electronic Science and Technology of China); Shibin Jiang (University of Electronic Science and Technology of China); Liming Huang (University of Electronic Science and Technology of China); Weiming Zhu (University of Electronic Science and Technology of China); Shaowei He (University of Electronic Science and Technology of China);*
- 00:00 MEMS Programmable Terahertz Metadevice for Frequency-parallel Multi-gate Opto-logic  
*Jiahao Li (Sichuan University); Yu-Sheng Lin (Aerospace Information Technology University);*

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**Session 1P7a**
**Short-Oral Presentations for Best Student Presentation Awards Competition - Part 3**


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**Tuesday PM, July 28, 2026**
**Room 7 - VIP R3**


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- 00:00 Hybrid Time-domain Simulation of Electron-RF Interactions and Mode Competition in Magnetrons  
*Hongbin Kim (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 Fast 3D Magnetotelluric Forward Modeling with Hierarchical Spectral Elements  
*Xu Han (Central South University); Kejia Pan (Central South University);*
- 00:00 Quantization of Non-Hermitian Electromagnetic Systems from the Geometry of the Maxwell Operator  
*Hyunwoo Choi (Pohang University of Science and Technology); Junwoo Gim (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 MEMS Programmable Terahertz Metadevice for Frequency-parallel Multi-gate Opto-logic  
*Jiahao Li (Sichuan University); Yu-Sheng Lin (Aerospace Information Technology University);*
- 00:00 Analysis of the Angular Sensitivity of Metasurface Holographic Displays  
*Yinglun Xu (Huazhong University of Science and Technology); Long Yue (Huazhong University of Science and Technology); Fan Sun (Huazhong University of Science and Technology); Zhilin Teng (Huazhong University of Science and Technology); Hui Gao (Huazhong University of Science and Technology);*
- 00:00 A Multifunctional Reconfigurable Metasurface Antenna for Electromagnetic Sensing and Manipulation  
*Wei Zhou (Zhejiang University); Jiwei Zhao (Zhejiang University); Tong An (Zhejiang University); Huan Lu (Zhejiang University); Peizuan Zhu (Zhejiang University); Rongrong Zhu (Zhejiang University City College); Xin Wei (Zhejiang University); Min Huang (National University of Defense Technology); Bin Zheng (Zhejiang University);*
- 00:00 Diffraction-free Transport of Subwavelength Ghost Polaritons Across Structural Defects  
*Yujie Tang (University of Electronic Science and Technology of China); Zhitao Zhang (University of Electronic Science and Technology of China); Yupeng Wang (China University of Geosciences); Zhigao Dai (China University of Geosciences); Weiliang Ma (University of Electronic Science and Technology of China); Pei-Heng Zhou (University of Electronic Science and Technology of China);*

- 00:00 Observation of Polarized Radiation in Gyromagnetic Zero-index Media  
*Chunquan Peng (University of Electronic Science and Technology of China); Qitong Zhen (University of Electronic Science and Technology of China); Yujie Tang (University of Electronic Science and Technology of China); Hongbo Yi (University of Electronic Science and Technology of China); Maoren Wang (University of Electronic Science and Technology of China); Long-Jiang Deng (University of Electronic Science and Technology of China); Baile Zhang (Nanyang Technological University); Gui-Geng Liu (Westlake University); Pei-Heng Zhou (University of Electronic Science and Technology of China);*
- 00:00 Compact All-dielectric Bound States in the Continuum Enabled by Transformation Optics  
*Yiyun Yan (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology); Xiaofan Ji (Taiyuan University of Technology); Qike Xie (Taiyuan University of Technology); Fei Sun (Taiyuan University of Technology); Shuai Zhang (Aalborg University);*
- 00:00 Deep Learning-enhanced Plasmonic Spectral Reconstruction: From Fourier-space Fingerprints to Dark-field Extrapolation  
*Banghuan Zhang (East China Normal University); Mohammadrahim Kazemzadeh (Istituto Italiano di Tecnologia); Ferruccio Pisanello (Center for Biomolecular Nanotechnologies, Istituto Italiano di Tecnologia); Huatian Hu (Istituto Italiano di Tecnologia (IIT)); Wen Chen (East China Normal University); Hongxing Xu (Institute of Physics, Henan Academy of Sciences);*
- 00:00 Polarity-Reconfigurable Photodetectors: Advantages in Computational Spectroscopy and Optical Communication  
*Hyeon Hak Jung (Gwangju Institute of Science and Technology (GIST)); Hyeonchang Son (Gwangju Institute of Science and Technology (GIST)); Seongil Yun (Gwangju Institute of Science and Technology (GIST)); Junho Min (Gwangju Institute of Science and Technology (GIST)); Junheon Ha (Gwangju Institute of Science and Technology (GIST)); Dong-Ho Kang (Gwangju Institute of Science and Technology (GIST)); Hoon Hahn Yoon (Gwangju Institute of Science and Technology (GIST));*
- 00:00 Kinetics of Photochromic Response in Nanostructured Tungsten Trioxide  
*Olga A. Lutikova (Dukhov Automatics Research Institute (VNIIA)); Daria P. Kulikova (Lomonosov Moscow State University); M. E. Dokukin (Lomonosov Moscow State University); A. V. Baryshev (Lomonosov Moscow State University);*
- 00:00 A Large-mode-area Single-mode Single-polarization Multicore Fiber for High-power Fiber Laser Systems  
*Yang Quan Huang (Lanzhou University of Technology); Shanglin Hou (Lanzhou University of Technology); Zhiqiang Zhang (Lanzhou University of Technology); Gang Wu (Lanzhou University of Technology); Zuyong Yan (Lanzhou University of Technology); Jingli Lei (Lanzhou University of Technology); Xi Tan (Lanzhou University of Technology);*
- 00:00 DC Drift Suppression in Thin-film Lithium Niobate Electro-optic Modulators Using Dual-capacitor Electrodes and Gradient Upper Cladding  
*Jiangyue Lan (Beihang University); Zuchen Zhang (Beihang University); Xiaowei Wang (Beihang University); Xiong Pan (Beihang University); Ningfang Song (Beihang University);*
- 00:00 Nonvolatile Silicon Nitride Based Integrated Magneto-optical Switch  
*Di Wu (University of Electronic Science and Technology of China); Shuyuan Liu (Fudan University); Zixuan Wei (University of Electronic Science and Technology of China); Xiaoyi Song (University of Electronic Science and Technology of China); Xuan Zhao (University of Electronic Science and Technology of China); Tianchi Zhang (University of Electronic Science and Technology of China); Zhenyuan Ren (University of Electronic Science and Technology of China); Jun Qin (University of Electronic Science and Technology of China); Lei Bi (University of Electronic Science and Engineering of China);*
- 00:00 Characteristic Mode Analysis of Human-body Radiation Viewed as an Antenna  
*Hongwei Ren (Xi'an Jiaotong University); Juan Chen (Xi'an Jiaotong University); Sen Yan (Xi'an Jiaotong University);*
- 00:00 Low-profile SIC-based Antenna with Reduced SAR for Wearable Applications  
*Zimin Cai (South China University of Technology); Chunxu Mao (South China University of Technology);*
- 00:00 New Approach to S-parameter Calibration in VNA Measurements: Postprocessing Methods for Statistically Significant Data  
*Loïc Pouzenc (Université de Toulouse); Alexandre Rumeau (LAAS-CNRS); Damien Saugnon (LAAS-CNRS); Mohammed Zaknoune (Université de Toulouse); Jean Guy Tartarin (Université de Toulouse);*
- 00:00 A Cognitive Multistatic Ionospheric Sounding System with AI-driven Closed-loop Frequency Agility  
*Randson Huang (National Taipei University of Technology); Hower Huang (National Taipei University of Technology); Yang-Lang Chang (National Taipei University of Technology);*
- 00:00 Real-time UAV-borne SAR Imaging via Scaling with High-order Phase Error Compensation  
*Siyuan Zhao (National University of Singapore); Hariharan Mohanabala Krishnan (National University of Singapore); Lue Wen (National University of Singapore); Xudong Chen (National University of Singapore);*

- 00:00 Research on 3D Imaging Method for GPR Circular Survey Line Detection Data in Shield Tunnels Based on BP Algorithm  
Weiwei Duan (Tongji University); Xiongyao Xie (Tongji University); Kun Zeng (Tongji University); Yiqun Pei (Tongji University); Biao Zhou (Tongji University); Fangjie Zhong (Zhejiang Intelligent Transportation Institute Technology Co., Ltd.); Hongyu Guo (Zhejiang Intelligent Transportation Institute Technology Co., Ltd.); Fei Sun (Zhejiang Intelligent Transportation Institute Technology Co., Ltd.);
- 00:00 A Dual-stream Detection Method for Ground Penetrating Radar Based on Signal-driven Sparse Enhancement  
Yuhan Li (Beijing Institute of Technology); Shuangying Sun (Beijing Institute of Technology); Jing Wen (Beijing Institute of Technology); Kunao Li (Beijing Institute of Technology); You Li (Beijing Institute of Technology); Junbo Gong (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);
- 00:00 Feature Extraction of Pharyngeal Motion Sounds Using a Throat Microphone  
Miho Sakai (Prefectural University of Hiroshima); Hisako Orimoto (Prefectural University of Hiroshima);
- 00:00 High-frequency Water Level Variations in the Upper Yellow River Using GNSS-IR Technology  
Tao Zhang (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);
- 00:00 Effect of Microwave Observations at 50 ~ 60 GHz Data Assimilation on Typhoon Forecasting  
Yuxuan Feng (National Space Science Center, Chinese Academy of Sciences); Jieying He (National Space Science Center, Chinese Academy of Sciences); Gang Ma (Center for Earth System Modeling and Prediction, China Meteorological Administration); Chao Zhang (National Space Science Center, Chinese Academy of Sciences);
- 00:00 RSHub 2.0: An LLM-based Autonomous Agent for Geophysical Microwave Scattering Modeling  
Jiaming Lin (Zhejiang University); Yiwen Fang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Kaiqi Chen (Zhejiang University); Yao Zhang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Shenghong Huang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Hao Liu (Zhejiang University); Xiyuan Zhu (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Shurun Tan (Zhejiang University);
- 00:00 Kuroshio Region Surface Current Retrieval from GF-3 SAR Data  
Wenjia Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Yawei Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Jinsong Chong (Aerospace Information Research Institute, Chinese Academy of Sciences);
- 00:00 Sensitivity-enhanced Atomic Magnetometry Based on Light-atom Nonlinear Coupling  
Yibo Qi (Beihang University); Shuying Wang (Beihang University); Xihui Ye (Beihang University); Xiaoyan Gao (Beihang University); Lei Wang (Beihang University); Jixi Lu (Beihang University);
- 00:00 A Dual Knowledge Base-driven Question Answering System for Automotive EMC  
Jian Pan (Chongqing University); Feng Gao (Chongqing University);
- 00:00 Comparative Study of Frequency and Coupling Medium Effects on Transcranial Focused Microwave Energy Delivery for Brain Tumor Applications  
Ke Ye (ShanghaiTech University); Xiong Wang (Shanghai Tech University);
- 00:00 The Effects of Coil Geometry and Excitation Parameters on Lorentz Forces in Head Tissues during TMS  
Zihao Feng (Lanzhou Jiaotong University); Mai Lu (Lanzhou Jiaotong University);
- 00:00 A Vertically-structured Metal-based Ultrafast Micro-nano Plasma Switch  
Zihao Zheng (University of Electronic Science and Technology of China); Haiquan Zhao (University of Electronic Science and Technology of China); Yuzhe Zheng (University of Electronic Science and Technology of China); Chenyu Luo (University of Electronic Science and Technology of China); Ruotong Zhou (University of Electronic Science and Technology of China); Feiliang Chen (University of Electronic Science and Technology of China); Jian Zhang (University of Electronic Science and Technology of China); Mo Li (University of Electronic Science and Technology of China);
- 00:00 Stain-free Histology on Structural Colorimetric Nanocavities  
Qizhe Chen (King Abdullah University of Science and Technology); Qiaoqiang Gan (King Abdullah University of Science and Technology (KAUST));
- 00:00 Designing of Flat Bands in the Excitation Spectra of a Lasing Chain  
Osipov Alexey (Technion — Israel Institute of Technology); Ivan Savenko (Technion — Israel Institute of Technology); Sergej Flach (Institute for Basic Science); Alexey Yulin (ITMO University);
- 00:00 Synthesis of Sparse Dipole Arrays via Fast Localized-coupling MoM and Genetic Algorithm  
Pei-Yao Chen (University of Electronic Science and Technology of China); Sheng Sun (University of Electronic Science and Technology of China);
- 00:00 Self-regulated All-optical Diode Based on Photothermal Actuation  
Xuning Wang (Shanghai Jiao Tong University); Guodong Hou (Shanghai Jiao Tong University); Guang Meng (Shanghai Jiao Tong University); Xiaoshi Qian (Shanghai Jiao Tong University);

00:00 1.98 Tbit/s Satellite-to-ground Laser Communication over 1000 km Equivalent Link Based on Multi-path Multi-beam Transmission and Spatial Diversified Synthetic Aperture Reception

*Fang Dong (Fudan University); Haoyu Zhang (Fudan University); Zhilan Lu (Fudan University); Yinjun Liu (Fudan University); Aolong Sun (Fudan University); Jianfeng Sun (Shanghai Satellite Network Research Institute (SSNRI)); Junwen Zhang (Fudan University); Nan Chi (Fudan University);*

00:00 A Novel Design of a Metasurface-enhanced Fingerprint InfraRed Spectroscopic Tool

*Xiangyu Zhao (Shanghai Jiao Tong University); Yuqing Liu (Shanghai Jiao Tong University); Jingzhu Shao (Shanghai Jiao Tong University); Chongzhao Wu (Shanghai Jiao Tong University);*

00:00 A Fast-startup 40 MHz Crystal Oscillator with Precisely Timed Injection and Dynamic Capacitive Loading

*Kenan Wang (Shanghai Jiao Tong University); Yinjun Tu (SGR Semiconductors); Xinen Zhu (SGR Semiconductors); Xuyang Lu (Shanghai Jiao Tong University); Hammad M. Cheema (National University of Sciences and Technology);*

00:00 End-to-end SAR Ship Detection from Raw Data Using Adaptive Deep Unfolding Networks

*Xiangdong Tan (National University of Defense Technology); Xiangguang Leng (National University of Defense Technology); Kefeng Ji (National University of Defense Technology); Gangyao Kuang (National University of Defense Technology);*

00:00 Improved Ice Cloud Retrievals Using a Mixed Super-ellipsoidal Model Constrained by Polarized Radiance

*Yizhen Meng (Zhejiang University); Lei Bi (Zhejiang University);*

00:00 A Detector-centered Mode Framework for Multi-photon Correlations in Lossy and Dispersive Nanophotonic Environments

*Hyunwoo Choi (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*

00:00 Ultra Robust Multi-bound States in the Continuum Metasurfaces for Generating Complex Quantum States

*Zirui Guo (Yanshan University); Jianmei Li (Yanshan University);*

00:00 Invisible Scattering Amplifier Based on Lossless Forward Cascade Network

*Qike Xie (Taiyuan University of Technology); Xiaofan Ji (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology); Fei Sun (Taiyuan University of Technology);*

00:00 Omni-MetaLab: A Physics-aware Autonomous Agent for Robust Metasurface Inverse Design

*Peng Yang (Westlake University); Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);*

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### Session 1P8

## Non-Hermitian Metamaterials and Topological Insulators

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Tuesday PM, July 28, 2026

Room 8 - CR 11

Organized by Zhi Hong Hang, Yuting Yang

Chaired by Zhi Hong Hang, Yuting Yang

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00:00 Van Hove Singularities in Non-Hermitian System  
*Changhao Meng (Hong Kong University of Science and Technology); Che Ting Chan (The Hong Kong University of Science and Technology);*

00:00 Observable Geometric Phase Effects in Topological Photonic Crystals  
*Xing-Xiang Wang (Shanghai University); Xiao Hu (Shanghai University);*

00:00 Flat-band Skin Effect  
*Guancong Ma (Baptist University of Hongkong); Xulong Wang (Hong Kong Baptist University);*

00:00 Harnessing Photonic Topological States via Geometry and Dissipation  
*Mingyang Li (Fudan University); Jing Lin (Fudan University); Kun Ding (Fudan University);*

00:00 Topological Rainbow in Non-Hermitian Systems  
*Wen Zhao (Beijing Institute of Technology); Cuicui Lu (Beijing Institute of Technology);*

00:00 Anti-parity-time Symmetry in Elastostatics  
*Changqing Chen (Hong Kong Baptist University); Aoxi Wang (Hong Kong Baptist University);*

00:00 Engineering Chiral Exceptional Points in Non-Hermitian Terahertz Metasurfaces  
*Weibao He (National University of Defense Technology); Shun Wan (Harbin Engineering University); Yuze Hu (National University of Defense Technology); Hui Jing (Hunan Normal University); Tian Jiang (National University of Defense Technology);*

00:00 Higher-order Topology in a Photonic Nodal Ring Semimetal  
*Yuchen Peng (Westlake University); Gui-Geng Liu (Westlake University);*

00:00 Leveraging Non-Hermitian Singularities for Enhanced Terahertz Sensing Using Tunable Graphene Metasurfaces  
*P. Isaac Anand (National Institute of Technology Calicut); Natesan Yogesh (National Institute of Technology Calicut);*

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**Session 1P9**
**Acoustic/Elastic Metamaterials for Various Applications 1**


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**Tuesday PM, July 28, 2026**
**Room 9 - CR 12**

Organized by Fuyin Ma, Rui Zhu, Xue Jiang

 Chaired by Fuyin Ma
 

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- 00:00 Topological Acoustic Tweezer  
Invited  
*Xuefeng Zhu (Huazhong University of Science and Technology);*
- 00:00 Lightweight Metamaterial-based Vibration and Noise Reduction Components for Various Equipment  
Invited  
*Fuyin Ma (Xi'an Jiaotong University); Xingzhong Wang (Xi'an Jiaotong University); Chongrui Liu (Xi'an Jiaotong University); Jiu Hui Wu (Xi'an Jiaotong University);*
- 00:00 Gear Fault Detection via Deep-subwavelength Rainbow Trapping Effect of Higher-order Topological Mechanical Metamaterials  
Invited  
*Baizhan Xia (Hunan University);*
- 00:00 Design Principle and Applications of Acoustic Metagratings  
Invited  
*Jun Mei (South China University of Technology);*
- 00:00 Acoustic Metamaterials for Noise Control: From Fundamental to Application  
Invited  
*Weichun Huang (Nanjing University); Z.-H. Li (Nanjing University); Y. Yu (Nanjing University); X. Li (Nanjing University); X.-R. Pan (Nanjing University); Ming-Hui Lu (Nanjing University); Yan-Feng Chen (Nanjing University);*
- 00:00 Acoustic and Vibration Behavior of Compression-torsion Coupling Metamaterials  
Invited  
*Jian Zhu (Xi'an Jiaotong University); Rui Zhang (Xi'an Jiaotong University);*
- 00:00 LLMs-based Design Methods for Ultralight Multifunctional Metastructures  
Invited  
*Yongfeng Jiang (Nanjing University of Aeronautics and Astronautics); Siyang Cao (Nanjing University of Aeronautics and Astronautics); Han Meng (Nanjing University of Aeronautics and Astronautics); Tian Jian Lu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Tailorable Mechanical Responses of Elastic Metamaterial with Intelligent Design Methodology  
Invited  
*Desheng Yao (Xi'an Jiaotong University);*
- 00:00 Tunable Acoustic Metasurfaces: Recent Advances and Perspective  
Invited  
*Bingyi Liu (Hefei University of Technology);*

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**Session 1P10**
**Dynamic and Multi-functional Metasurfaces for Wavefront Manipulation**


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**Tuesday PM, July 28, 2026**
**Room 10 - CR 13**

Organized by Shah Nawaz Burokur, Kuang Zhang

 Chaired by Shah Nawaz Burokur
 

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- 00:00 Multifunctional Terahertz Wavefront Control Metasurface Based on Multiple Mechanisms  
*Qi Tan (Tianjin University); Hang Xu (Tianjin University); Zhengyi Zhao (Tianjin University); Jianquan Yao (Tianjin University);*
- 00:00 Design of Groundless Bi-directional Metagrating-based Absorbers  
*Zhen Tan (Nantong University); Shah Nawaz Burokur (Paris Nanterre University);*
- 00:00 Learning-assisted Metasurface for Direction Finding  
*N. Meftah (Université Paris Nanterre); Badredine Ratni (Paris Nanterre University); M. N. El Korso (Université Paris-Saclay); Shah Nawaz Burokur (Paris Nanterre University);*
- 00:00 Multi-functional Spoof Plasmonic Metasurface for Dynamic Manipulation of Guiding Waves at Microwave Frequencies  
*Dawei Zhang (Harbin Engineering University); Yaxiu Sun (Harbin Engineering University); Tao Jiang (Harbin Engineering University); Qun Wu (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology); Shah Nawaz Burokur (Paris Nanterre University);*
- 00:00 Nonreciprocal Pancharatnam-Berry Metasurface  
*Hao Pan (City University of Hong Kong); Mu Ku Chen (City University of Hong Kong); Din Ping Tsai (City University of Hong Kong); Shubo Wang (City University of Hong Kong);*
- 00:00 Reconfigurable Reflection and Transmission Integrated Metasurface for Full-space Holography  
*Rui Feng (North University of China); Yaokai Yu (North University of China); Dongyang Wu (North University of China); Qiulin Tan (North University of China); Shah Nawaz Burokur (Paris Nanterre University);*
- 00:00 Metasurface-enabled Holographic Encryption via Arnold Transform for Secure Wireless Communications  
*Lei Zhu (Qiqihar University); Zhixin Zhang (Qiqihar University); Shujie Wang (Qiqihar University); Liang Dong (Qiqihar University); Qun Wu (Harbin Institute of Technology);*
- 00:00 PCB Metagrating for Broadband Terahertz Beam Steering with High Efficiency  
*Cong Liu (Xi'an Jiaotong University); Jianwei Xu (Xi'an Jiaotong University); Jiahui Ji (Xi'an Jiaotong University); Shixiong Wang (Xi'an Jiaotong University); Jianjia Yi (Xi'an Jiaotong University);*

- 00:00 Seven-channel Tunable Cascaded Holographic Metasurface for Structured-light 3D Reconstruction  
*Liming Huang (University of Electronic Science and Technology of China); Shibin Jiang (University of Electronic Science and Technology of China); Shaowei He (University of Electronic Science and Technology of China); Weiming Zhu (University of Electronic Science and Technology of China);*
- 00:00 Multiplexing Longitudinally Varying Vector Vortex Beams with Terahertz Metasurfaces  
*Hongrui Zhang (Harbin Engineering University); Xiaohan Jiang (Harbin Engineering University); Wanying Liu (Harbin Engineering University); Chunying Guan (Harbin Engineering University); Jinhui Shi (Harbin Engineering University);*
- 00:00 Design of a 4-bit Self-radiating Reconfigurable Metasurface for High-purity Orbital Angular Momentum (OAM) Generation  
*Desheng Yang (Harbin Institute of Technology); Yueyi Yuan (Harbin Institute of Technology); Qun Wu (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology);*
- 00:00 An Ultrawideband 1-Bit Reconfigurable Intelligent Metasurface for Wireless Communications with High Angular Stability  
*Hanren Chang (Nanjing University); Ke Chen (Nanjing University); Tian Jiang (Nanjing University); Junming Zhao (Nanjing University); Yijun Feng (Nanjing University);*
- 00:00 Topological Valley-locked Waveguide States in Artificial Crystals  
*Mudi Wang (Wuhan University); Che Ting Chan (The Hong Kong University of Science and Technology); Zhengyou Liu (Wuhan University);*
- 00:00 Pancharatnam-Berry Geometric Phase of Water Waves  
*Wanyue Xiao (City University of Hong Kong); Shiqi Jia (City University of Hong Kong); Tong Fu (Shenzhen University); Shubo Wang (City University of Hong Kong);*
- 00:00 Testing Holographic Duality on Hyperbolic Circuit  
*Jingming Chen (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);*
- 00:00 Accelerating Cross-scenario Intelligent Metasurface Adaptability  
*Chao Qian (Zhejiang University);*
- 00:00 Observation of Sonic Type-II Semi-Dirac Semimetals  
*Wei Xiong (Nanjing University); Zhiwang Zhang (Nanjing University); Ying Cheng (Nanjing University); Xiao-Jun Liu (Nanjing University);*
- 00:00 Bound States in the Continuum of Liquid Surface Waves  
*Yi Zhang (Fudan University); Wenzhe Liu (Fudan University); Lei Shi (Fudan University);*

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**Session 1P11****Classical Wave Metamaterials**

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**Tuesday PM, July 28, 2026****Room 11 - CR 15**

Organized by Bo Wang, Wenzhe Liu

Chaired by Wenzhe Liu

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- 00:00 Nonreciprocal Wave Propagation Based on Nonreciprocal Bianisotropic Coupling in Metamaterials  
*Xinhua Wen (South China University of Technology);*
- 00:00 Supervelocity Inverse Doppler Effect in Water Waves  
*Zijian Qin (Zhejiang University); Hongsheng Chen (Zhejiang University); Huaping Wang (Zhejiang University);*
- 00:00 Acoustic Quantum Skyrmion-valley Hall Effect  
*Invited Lei Liu (Nanjing University); Xiujuan Zhang (Nanjing University); Ming-Hui Lu (Nanjing University); Yan-Feng Chen (Nanjing University);*
- 00:00 Space-coiling Structure and Its Applications  
*Invited Keqiang Lyu (King Abdullah University of Science and Technology (KAUST)); Mohamed Farhat (King Abdullah University of Science and Technology (KAUST)); Ying Wu (King Abdullah University of Science and Technology (KAUST));*

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**Session 1P12****Quantum State Manipulation and Its Device Applications 2**

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**Tuesday PM, July 28, 2026****Room 12 - CR 16**Organized by Hai-Ou Li, Xiang-Xiang Song

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- 00:00 Low-power Two-dimensional Organic Logic and Memory Devices  
*Invited Zhongzhong Luo (Nanjing University of Posts and Telecommunications);*
- 00:00 Broader Nonlocal Spectrum in the Pb-InSb Hybrid Three Terminals for Potential Kitaev Chain and DOS-controlled Andreev Molecule  
*Invited Jie Shen (Institute of Physics, Chinese Academy of Sciences);*
- 00:00 Semiconductor Quantum Computing Material Growth and Transport Characterization  
*Invited Guilei Wang (Beijing Superstring Academy of Memory Technology);*
- 00:00 On-demand Tunable SOC for Silicon Spin Qubit Scalable Architecture  
*Invited Ranran Cai (University of Science and Technology of China);*
- 00:00 Universal Doubly Geometric Quantum Gates for High-order Error Suppression  
*Invited Chengxian Zhang (Guangxi University);*

- 00:00 Low-charge Noise Germanium Hole Gases for Spin and Super-semi Quantum Devices  
Invited *Ji-Yin Wang (Beijing Academy of Quantum Information Sciences);*
- 00:00 Collective Quantum States in Bragg and Anti-Bragg Superatoms in Waveguide QED  
Invited *Zhirong Lin (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences);*
- 00:00 SiGe Materials by Molecular Beam Epitaxy for Quantum Computing  
Invited *Jieyin Zhang (Songshan Lake Materials Laboratory); Ming Ming (Institute of Physics, Chinese Academy of Sciences); Jian-Jun Zhang (Institute of Physics, Chinese Academy of Sciences);*
- 00:00 Trion State Transitions and Hybrid Bound States of Electron Channel-quantum Dot-type Structure at Quantized Magnetic Fields  
*Zhen-Nan Wang (Institute of Semiconductors, Chinese Academy of Science); Yi Wang (Institute of Semiconductors, Chinese Academy of Science); Fei-Long Song (Institute of Semiconductors, Chinese Academy of Science); Shu-Yu Zheng (Institute of Physics, Chinese Academy of Sciences); Li Lu (Institute of Physics, Chinese Academy of Sciences); Jun Zhang (Institute of Semiconductors, Chinese Academy of Sciences); Chi Zhang (Institute of Physics, Chinese Academy of Sciences);*

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**Session 1P13**

**Quantum Enhanced Communication and Sensing**

**Tuesday PM, July 28, 2026**

**Room 13 - CR 17**

Organized by Yang Li, Ziyang Chen

Chaired by Yang Li, Ziyang Chen

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- 00:00 High-performance Free-space Quantum Key Distribution with Continuous Variables  
*Peng Huang (Shanghai Jiao Tong University); Tianxiang Zhan (Shanghai Jiao Tong University); Hanwen Yin (Shanghai Jiao Tong University); Mingxuan Guo (Shanghai Jiao Tong University); Xiaojuan Liao (Shanghai Jiao Tong University); Zehao Zhou (Shanghai Jiao Tong University); Guihua Zeng (Shanghai Jiao Tong University);*
- 00:00 Methods of Quantum-enhanced Secure Time Synchronization  
*Yang Li (Institute of Southwestern Communication);*
- 00:00 Polar Coding with Feedback: A Framework for QKD Applications  
*Ling Liu (Xidian University); Qi Cao (Xidian University); Liping Li (Anhui University); Baoming Bai (Xidian University);*
- 00:00 Silicon-based Heterogeneous Integrated Quantum Photonic Chips  
*Gong Zhang (Zhejiang University);*

- 00:00 Building Quantum Communication Networks with Integrated Photonics  
*Yun Zheng (Peking University); Jianwei Wang (Peking University);*
- 00:00 Compromising Quantum Clock Synchronization by Slow and Persistent Asymmetry Channel Delay Strategy  
*Bo Liu (National University of Defense Technology); Hui Han (National University of Defense Technology); Haotian Teng (National University of Defense Technology);*
- 00:00 Recent Developments of Reference Frame Independent QKD  
*Shihai Sun (Sun Yat-sen University);*
- 00:00 High-Q Crystalline Microcavities for Chip-scale Quantum Metrology  
*Yijie Pan (Center for Advanced Measurement Science, National Institute of Metrology);*
- 00:00 Comb-based Time-frequency Transfer Over Fiber  
*Ziyang Chen (Beijing Institute of Technology);*

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**Session 1P14**

**Nanophotonics in Low-dimensional Materials and Their Applications 2**

**Tuesday PM, July 28, 2026**

**Room 14 - VIP R5**

Organized by Yunyun Dai, Jiahua Duan

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- 00:00 Broadband Room-temperature Mid-infrared Detection  
Keynotewith 2D Materials and Nanoparticles  
*Qi Jie Wang (Nanyang Technological University);*
- 00:00 Ultrasensitive Mid-infrared Polaritonic Spectroscopy for Nanoscale Molecular Detection and Interfacial Dynamics  
Invited *Xiaoxia Yang (National Center for Nanoscience and Technology);*
- 00:00 THz s-SNOM Technique and Its Applications in Nanophotonics  
Invited *Shu Chen (University of Shanghai for Science and Technology (USST));*
- 00:00 Harnessing Subwavelength Optical Near Fields for Artificial Bulk Photovoltaic Effect: From Graphene to TMDs  
Invited *Jingxuan Wei (University of Electronic Science and Technology of China);*
- 00:00 Spectrally Tunable Two-dimensional Material Photodetectors for Intelligent Optoelectronics  
Invited *Hoon Hahn Yoon (Gwangju Institute of Science and Technology (GIST));*
- 00:00 Atomic-scale Investigation of Electron and Phonon Dynamics Using Ultrafast Scanning Tunneling Microscopy  
Invited *Shaoxiang Sheng (Zhejiang Qiantang Institute of Basic Sciences);*

00:00 Ultimate Tuning of Hyperbolic Phonon Polaritons  
Invited

*Linglong Zhang (Nankai University); Weiwei Luo (Nankai University); Wei Cai (Nankai University); Jingjun Xu (Nankai University);*

00:00 Plasmonic Dirac-vortex Cavities for Programmable Lasers  
Invited

*Jun Guan (The Chinese University of Hong Kong, Shenzhen);*

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**Session 1P15**

**Advanced Materials and Devices for Optoelectronics and Photonics 2**

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**Tuesday PM, July 28, 2026**

**Room 15 - CR 18**

Organized by Kwang-Sup Lee, Jing Feng, Hitoshi Kasai

Chaired by Kwang-Sup Lee, Hitoshi Kasai

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00:00 High-quality Perovskite Semiconductors for Direct X-ray Detection  
Invited

*Guangda Niu (Huazhong University of Science and Technology);*

00:00 Long-range Order Enables Stable Quantum Dot Light-emitting Diodes  
Invited

*Ya-Kun Wang (Soochow University); Liang-Sheng Liao (Soochow University);*

00:00 Nanoscale Pixelated Quantum Dot Light-emitting Devices  
Invited

*Fushan Li (Fuzhou University);*

00:00 Interfacial Engineering for Efficient and Stable Red-emitting Perovskite Thin Films

*Zhenghao Zhao (Zhejiang University); Zhixiang Ren (Zhejiang University); Maixi Zheng (Zhejiang University); Chen Zou (Zhejiang University); Dawei Di (Zhejiang University); Baodan Zhao (Zhejiang University);*

00:00 High Open-circuit Voltage Perovskite/Organic Tandem Solar Cells  
Invited

*Jin Young Kim (Ulsan National Institute of Science and Technology (UNIST));*

00:00 An Electrochemically Stable Self-assembled Monolayer Enables Efficient and Operationally Stable Perovskite Solar Cells  
Invited

*Dongmin Lee (Ulsan National Institute of Science and Technology); Dong Suk Kim (Ulsan National Institute of Science and Technology (UNIST));*

00:00 2D BN-based Broadband Photodetectors with Thermal Stability & Self-powered Operation

*Andrew F. Zhou (Indiana University of Pennsylvania);*

00:00 Simulation Study of Low-voltage Avalanche Photodetectors Based on WSe<sub>2</sub>/InSe van der Waals Heterostructures

*Haipeng Wang (Southwest Institute of Technical Physics); Wei Zhang (Southwest Institute of Technical Physics); Tong Li (Southwest Institute of Technical Physics); Xule Wang (Advance China IP Law Office); Xiumin Xie (Southwest Institute of Technical Physics); Yuan Liu (Southwest Institute of Technical Physics); Shijie Deng (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Beitong Cheng (Southwest Institute of Technical Physics); Ruomei Jiang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*

00:00 Regulating of Evanescent Waves and Their Applications in Lithography

*Gaofeng Liang (Chongqing University);*

00:00 Electromagnetically Driven Exciton Localization in Low-dimensional Lead-free Perovskite Derivatives

*Peifen Zhu (University of Missouri);*

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**Session 1P16**

**Ultrafast and Nonlinear Nanophotonics 3**

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**Tuesday PM, July 28, 2026**

**Room 16 - CR 19**

Organized by Sergey V. Makarov, Costantino De Angelis, Kirill L. Koshelev, Mihail I. Petrov

Chaired by Kirill L. Koshelev, Mihail I. Petrov

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00:00 Active Topological Nanophotonics with Applications to Nonlinear Optics and Multi-beam Lasers  
Invited

*Jitong Wang (University College London); Nicolae Coriolan Panoiu (University College London);*

00:00 Ultrafast Tunable Nonlinearity of Carbon Nanotube Intersubband Plasmon  
Invited

*Yuriy G. Gladush (Skolkovo Institute of Science and Technology); Alexey Bunkov (Skolkovo Institute of Science and Technology); Valeriya Levkovskaya (Skolkovo Institute of Science and Technology); Alexey Sokolik (Institute of Spectroscopy); Aram A. Mkrtchyan (Skolkovo Institute of Science and Technology); Dmitry Krasnikov (Skolkovo Institute of Science and Technology); Pavlos G. Lagoudakis (Skolkovo Institute of Science and Technology); Albert G. Nasibulin (Skolkovo Institute of Science and Technology);*

00:00 Ultrafast All-optical Metasurfaces Based on Epsilon-near-zero Materials: New Regimes of Nonlinear Frequency Conversion  
Invited

*R. Dhama (Tampere University); A. Pianelli (Tampere University); Md. I. Hossain (Tampere University); J. Pietila (Tampere University); Humeyra Caglayan (Eindhoven University of Technology);*

- 00:00 Kerr Optical Frequency Comb Sources for High-speed Optical Communication Systems  
*Toms Salgals (Riga Technical University); Janis Alnis (University of Latvia); Inga Brice (University of Latvia); Sviltana Matsenko (Technical University of Denmark (DTU)); Aleksandr Krotov (Riga Technical University); Sandis Spolitis (Riga Technical University); Jurgis Porins (Riga Technical University); Oskars Ozolins (Riga Technical University, Latvian Academy of Sciences); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Empowering Topological Photonics for OAM Manipulation  
*Zhigang Chen (Nankai University);*
- 00:00 Integrated Quantum and Nanophotonics with Telecom Quantum Dots  
*Elizaveta Semenova (Technical University of Denmark);*
- 00:00 Super-resolution Inspection of Nano-semiconductor via Photothermal Nonlinear Scattering  
*Shi-Wei Chu (National Taiwan University);*
- 00:00 Transition Metal Dichalcogenides for High-index Nanophotonics, Nonlinear Optics, and Strong Light-matter Coupling  
*Timur O. Shegai (Chalmers University of Technology);*
- 00:00 Ultrafast Optical and THz Magnetophotonics  
*Vladimir I. Belotelov (M. V. Lomonosov Moscow State University);*
- 00:00 Laser-ablative Synthesis of van der Waals Nanostructures: Engineering Size, Composition, Optical Response and Giant Optical Anisotropy  
*Valentyn S. Volkov (Emerging Technologies Research Center, XPANCEO, Dubai Investment Park First); Gleb Tselikov (Emerging Technologies Research Center, XPANCEO); Anton A. Minnekhanov (Emerging Technologies Research Center, XPANCEO); Aleksey V. Arsenin (Emerging Technologies Research Center, XPANCEO);*
- 00:00 Ultrafast Nano-imaging — Probing Structure, Coupling, and Dynamics of Matter on Its Natural Length and Time Scales  
*Markus B. Raschke (University of Colorado Boulder);*

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**Session 1P17**  
**Metasurface Polarization and Diffraction Optics**  
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**Tuesday PM, July 28, 2026**

**Room 17 - CR 20**

Organized by Zi-Lan Deng, Kun Huang, Xiangping Li

Chaired by Zi-Lan Deng

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- 00:00 High-precision Displacement and Acceleration Sensing Based on Micro-nano Optics  
*Haofeng Zang (University of Science and Technology of China);*

- 00:00 Dynamic Plasmonics with Structured Alkali Metals  
Invited  
*Lin Zhou (Nanjing University); Jie Liang (Nanjing University); Min Xiong (Nanjing University); Yan Jin (Nanjing University); Jia Zhu (Nanjing University);*
- 00:00 Research on Fast Generation of 3D Holographic Volumetric Multi-foci Array and Its Application  
Invited  
*Chaowei Wang (University of Science and Technology of China);*
- 00:00 Super Optical-diffraction-limit Imaging Enabled by a Multifunction-integrated Metalens  
Invited  
*Haowen Liang (Sun Yat-sen University);*
- 00:00 Reconfigurable Cascaded THz Metasurfaces for Continuous Zooming and Vortex Beam Generation  
*Naeem Ullah (Zhejiang University); Ubaid Ur Rahman Qureshi (Zhejiang University);*
- 00:00 Research on Multifunctional Planar Optical Imaging Based on Liquid Crystals  
Invited  
*Guoxing Zheng (Wuhan University);*
- 00:00 Generation of Novel Vortex Beams and Their Applications  
Invited  
*Yuanjie Yang (University of Electronic Science and Technology of China);*
- 00:00 Broadband Optical Isolator Based on Polarization Degeneracy  
*Abanoub Maher Semry Mikhail (Harbin Engineering University); Zarina F. Kondratenko (Sadrieva) (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);*
- 00:00 Chiral Emission from Chirotopic Nanostructures  
Invited  
*Yang Chen (University of Science and Technology of China);*
- 00:00 Multifunctional THz Metasurface for Simultaneous Circular Dichroism, Polarization Conversion, and Pancharatnam-Berry Phase Realization  
*Aleena Antony (National Institute of Technology Calicut); Natesan Yogesh (National Institute of Technology Calicut);*

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**Session 1P18**  
**Recent Developments of Diffractive Optical Sensors Using Machine Learning 1**

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**Tuesday PM, July 28, 2026**

**Room 18 - VIP R8**

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

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- 00:00 Programmable Diffractive Neural Networks for Information Sensing, Processing and Computing in Electromagnetic Space  
Keynotetion  
*Qian Ma (Southeast University); Tie Jun Cui (Southeast University);*

- 00:00 Deep-learning Tools to Untangle Light-scattering for  
Invited Imaging  
*L. Valantinas (AllFocal Optics Ltd., St John's Innovation Center); Tom Vettenburg (University of Dundee);*
- 00:00 Data-driven Identification of Bound States in the Continuum in Disordered Dielectric Metasurfaces  
*K. V. Semushev (ITMO University); Nikolai Andreevich Vlasov (ITMO University); V. A. Porvatov (Skoltech); Ravshanjon Nazarov (ITMO University); Zarina F. Sadrieva (ITMO University); Ekaterina E. Maslova (ITMO University);*
- 00:00 Ultrabroadband and Ultrasensitive SWIR Molecular  
Invited Fingerprinting via Acoustic MXene Plasmons  
*Jisung Kwon (Korea University); Changhoon Park (Korea University); Yury Gogotsi (Drexel University); Chong Min Koo (Sungkyunkwan University); Myung-Ki Kim (Korea University);*
- 00:00 Design of Metastructure-enhanced Terahertz Sensors  
Invited  
*Li Li (Harbin Institute of Technology); Fei Yan (Harbin Institute of Technology); Hao Tian (Harbin Institute of Technology);*
- 00:00 Photoinduced Metasurface Tuning for Ultrafast Optical  
Invited Image Processing  
*Alexander S. Shorokhov (Lomonosov Moscow State University);*
- 00:00 Machine-learning-enhanced Raman Microscopy for  
Invited Rapid and Sensitive Molecular Diagnostics  
*Katsumasa Fujita (The University of Osaka);*
- 00:00 Application of Frequency Domain Reflectometry to Research Tapers of Lensed Optical Fibers  
*Anatoliy Pankov (Perm State University); R. S. Ponomarev (Perm State University); F. E. Khasnullin (Perm State University); M. E. Belokrylov (ICMM of the Ural Branch of the Russian Academy of Sciences); Y. A. Konstantinov (ICMM of the Ural Branch of the Russian Academy of Sciences);*
- 00:00 Radiative Decay Tuning of Metasurface Resonances for  
Invited Improved Optical Sensing  
*Stefan A. Maier (Monash University);*
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- Session 1P19**  
**Topological Photonics 2**
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- Tuesday PM, July 28, 2026**  
**Room 19 - CR 27**
- Organized by Jian-Hua Jiang, Mudi Wang, Meng Xiao  
Chaired by Mudi Wang, Meng Xiao
- 
- 00:00 Pseudo-parallel Spaces and Overlapping Devices  
Invited  
*Tongtong Song (Nanjing University); Yongxin Jing (Nanjing University); Changhui Shen (Nanjing University); Hongchen Chu (Nanjing Normal University); Jie Luo (Soochow University); Zhao-Qing Zhang (The Hong Kong University of Science and Technology); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University); Che Ting Chan (The Hong Kong University of Science and Technology); Yun Lai (Nanjing University);*
- 00:00 Observation of Interaction-induced Delocalization and  
Invited Criticality in a Flat-band System  
*Zhaoju Yang (Zhejiang University);*
- 00:00 2D Tight-binding Photonic Crystals  
Invited  
*Biye Xie (The Chinese University of Hong Kong, Shenzhen); Jing Li (The Chinese University of Hong Kong, Shenzhen); Aodong Li (The Chinese University of Hong Kong, Shenzhen);*
- 00:00 Topological Hybridisation of Plasmons with Ferrimagnetic Magnons  
*Cooper Finnigan (Monash University); Mehdi Kargarian (Sharif University of Technology); Dmitry K. Efimkin (Monash University);*
- 00:00 Virtual Complex Frequency Wave Excitation: Method  
Invited and Applications  
*Zhi Hong Hang (Soochow University);*
- 00:00 Photonic Orbital Half Meta-crystals and Scalar-vectorial Duality  
*Yan-Long Chen (Hunan University); Biao Yang (National University of Defence Technology); Che Ting Chan (The Hong Kong University of Science and Technology); Qinghua Guo (Hunan University);*
- 00:00 Topological Photonic Crystals for Subwavelength Imaging  
Invited  
*Dong-Yang Wang (University of Southampton);*
- 00:00 Observation of Random-flux-induced Topological Phase  
Invited Transition in Gyromagnetic Photonic Crystals  
*Hai-Xiao Wang (Ningbo University);*
- 00:00 Higher-order Topology in Split-ring Resonator Arrays with Dipole-quadrupole Interactions  
*Alina D. Rozenblit (ITMO University); Nikita A. Olekhno (ITMO University);*
- 00:00 Photonic Arbitrary Chern Vectors  
*Xiang Xi (Dongguan University of Technology); Zhen Gao (Southern University of Science and Technology);*

**Session 1P20****AI-driven Biophotonics for Medical Diagnosis**

Tuesday PM, July 28, 2026

Room 20 - CR 28

Organized by Juergen Popp

Chaired by Juergen Popp

- 00:00 Full-range Stimulated Raman Scattering Spectroscopy and Imaging for Biomedical Applications  
*Jin Guo (Peking University); Haojie Zhang (Peking University); Hanqing Xiong (Peking University);*
- 00:00 Clinically Translatable Optical Coherence Tomography-guided Multimodal Nonlinear Optical Microscopy  
*Jianfeng Wang (Leibniz Institute of Photonic Technology); Hao Wang (Beijing Institute of Technology); Yonghou Tang (Beijing Institute of Technology); Hyeon-soo Bae (Leibniz Institute of Photonic Technology); Tobias Meyer-Zedler (Leibniz Institute of Photonic Technology); Michael Schmit (Friedrich Schiller University Jena); Jürgen Popp (Friedrich Schiller University Jena);*
- 00:00 The Combination of Raman and AI for Biomedical Applications  
*Jing Huang (South China Normal University);*
- 00:00 Photonics Data Science for Biomedical Investigations  
*Shuxia Guo (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Elena Corbetta (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Sara Mostafapour (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Ruihao Luo (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Thomas Bocklitz (Leibniz Institute of Photonic Technology);*
- 00:00 Exploring Feature Extraction Methods for Raman Spectroscopy: A Comparative Study  
*Jamile Jafari (Leibniz Institute of Photonic Technology); Thomas Bocklitz (Leibniz Institute of Photonic Technology);*
- 00:00 Machine Learning-assisted Optical Photothermal Infrared Microscopy for Identification of Amyloids and Associated Tissue Interplay  
*Oxana Klementieva (Lund University);*
- 00:00 Rapid On-site Detection of Inflammatory Biomarkers  
Invited Using Portable IR and Raman Spectroscopy  
*Christian W. Huck (Leopold Franzens Univ Innsbruck);*
- 00:00 High-speed Multimodal Microscopy for Biomedical Applications  
Invited  
*A. Pieczara (Jagiellonian Universityin Krakow); W. Korona (Jagiellonian Universityin Krakow); B. Orzechowska (Jagiellonian Universityin Krakow); F. Pachacz (Jagiellonian Universityin Krakow); K. Turczynska (Jagiellonian Universityin Krakow); J. Firlej (Jagiellonian Universityin Krakow); A. Nowakowska (Jagiellonian Universityin Krakow); K. Brzozowski (Jagiellonian Universityin Krakow); Malgorzata Baranska (Jagiellonian Universityin Krakow);*

- 00:00 Random Access Raman Spectroscopy with Machine Learning for Rapid Medical Diagnosis  
*Katsumasa Fujita (The University of Osaka); Yasuaki Kumamoto (The University of Osaka);*
- 00:00 Optical Mapping of the Brain: Use of AI Tools to Reconstruct Cytoarchitectonics and Functional Connectivity  
Keynote  
*Francesco Saverio Pavone (University of Florence);*

**Session 1P21****Flexible Photonics: Exploring Applications and Future Potential of Optical Technologies on Compliant Platforms 1**

Tuesday PM, July 28, 2026

Room 21 - CR 29

Organized by Lan Li, Lei Zhang, Tian Gu

Chaired by Lan Li

- 00:00 Flexible Topological Laser Based on Polymerized Cholesteric Liquid Crystals  
Invited  
*Yu Wang (Nankai University); Shiqi Xia (Nankai University); Irena Drevensek-Olenik (University of Ljubljana); Xinzhen Zhang (Nankai University); Zhigang Chen (Nankai University); Jingjun Xu (Nankai University);*
- 00:00 Metafiber: A Compact Platform for Sensing and Communication  
Invited  
*Tingbiao Guo (Zhejiang University);*
- 00:00 Recent Progress on the Flexible Perovskite/CIGS Tandems  
Invited  
*Rui Wang (Westlake University);*
- 00:00 Unclonable Optical Labels  
Invited  
*Yu Wang (Nanjing University (NJU));*
- 00:00 Hierarchically Microstructured Dielectric Liquid Crystal Colloid Elastomers with Low-voltage Actuation and Programmable Deformation  
*Xin Shen (Zhejiang University); Qi Zhao (Westlake University); Jiu-An Lv (Westlake University);*
- 00:00 Bioinspired Flexible Multidimensional Optical Sensors Based on Meta-integrated InGaAs Photodetectors  
*Yuting Ye (Westlake University); Jieren Song (Zhejiang University); Yingjie Tang (Westlake University); Hui Ma (Zhejiang University); Qingyan Deng (Westlake University); Lan Li (Westlake University);*
- 00:00 Photonic Skin for Photonic-integration-based Wearable Sensors  
Invited  
*Hongqiang Li (Tiangong University (Tianjin Polytechnic University)); Xiaolin Li (Tiangong University); Yueting Yang (Tiangong University); Fanglin Xie (Tiangong University); Ming Han (Tiangong University); Zhilin Lin (Tiangong University); Yingjie Wang (Tiangong University); Junqu Zhang (Tiangong University); Shanshan Zhang (Tiangong University); Cheng Zhang (Tiangong University); Lu Cao (Tianjin University); Enbang Li (University of Wollongong);*

00:00 Chalcogenide Base Microring Resonator Arrays: Research Advances and Applications in Photoacoustic Tomography and Wearable Blood Pressure Monitoring  
Invited *Zhaohui Li (Sun Yat-sen University); Jingshun Pan (South China Normal University);*

00:00 Non-Hermitian Perturbation Analysis for Chiral Molecule Sensing  
Invited *Wenxuan Wang (Sun Yat-sen University); Haijun Chen (Sun Yat-sen University); Yaqing Bie (Sun Yat-sen University); Zhaolong Cao (Sun Yat-sen University);*

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**Session 1P22a**

**Poster Session for Best Student Presentation Awards Competition - Part 3**

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**Tuesday PM, July 28, 2026**

**Poster Area**

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**Session 1P22b**

**Poster Session 3**

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**Tuesday PM, July 28, 2026**

**14:00 PM - 18:00 PM**

**Poster Area**

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00:00 Reservoir Computing with Neurophotonic Handwritten Digit Recognition  
*Yin Deng (Beijing University of Posts and Telecommunications); Yawen Li (Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences); Lili Gui (Beijing University of Posts and Telecommunications); Zhuo Han (Beijing University of Posts and Telecommunications); Kesen Shi (Beijing University of Posts and Telecommunications); Longze Sha (Institute of Basic Medicine, Chinese Academy of Medical Sciences); Qi Xu (Institute of Basic Medicine, Chinese Academy of Medical Sciences); Kun Xu (Beijing University of Posts and Telecommunications);*

00:00 Surface-functionalized Ceria/Silica Nanoparticle Slurries for Enhanced CMP Process  
*Hyunji Hwang (Hannam University); Tae-Dong Kim (Hannam University);*

00:00 A Light-sheet-based Stokes Vector Polarimetry for High-throughput Visualization of Electrochemical Gas Evolution  
*Jichen Bian (Tsinghua University); Caizhong Guan (Tsinghua University); Nan Zeng (Tsinghua University);*

00:00 An Algorithmic Framework for LSS UAV Positioning and Trajectory Mapping from FBG Sensor Network Data

*Aleksandrs Olins (Riga Technical University); Lilita Gegere (Riga Technical University); Sintija Berzina (Riga Technical University (RTU)); Natalja Muračova (Riga Technical University); Dmytro Vovchuk (Riga Technical University); Mykola Khobzei (Riga Technical University); Vladyslav Tkach (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*

00:00 Low-loss and Low-imbalance O- and C-band MMI Couplers with Optimized Bézier-curve Boundaries and Tapers

*Yanyan Li (Beijing University of Posts and Telecommunications); Lei Zhang (Beijing University of Posts and Telecommunications);*

00:00 Numerical Simulation of CW LED-side-pumped Nd<sup>3+</sup>-doped Fiber Laser

*Abdulla Qakhkhorov (Institute of Ion Plasma and Laser Technologies); Shermakhamat Payziyev (Institute of Ion-Plasma and Laser Technologies); Sherzod Begimqulov (Institute of Ion Plasma and Laser Technologies);*

00:00 A Low-profile Multi-frequency Shared-aperture Antenna for UAVs

*Hong-Yu Liu (Southwest University of Science and Technology); Haonan Huang (Southwest University of Science and Technology); Li-Juan Deng (Southwest University of Science and Technology); Bing Chen (China Automotive Engineering Research Institute Co., Ltd); Longjian Zhou (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology);*

00:00 Wideband Dual-circularly Polarized Antenna Based on Magnetic Coupled Symmetrical Slot Structure

*Yuekun Sun (South China University of Technology); Chunxu Mao (South China University of Technology);*

00:00 An Ultra-low-profile Single-layer Filtering Antenna for 5G Millimeter-wave Communications

*Kaixuan Sun (Aerospace Information of Research Institute, Chinese Academy of Sciences, University of Chinese Academy of Sciences); Rui Zhang (Aerospace Information Research Institute, Chinese Academy of Sciences); Lu Tian (Aerospace Information Research Institute, Chinese Academy of Sciences); Yueyan Ren (Aerospace Information of Research Institute, Chinese Academy of Sciences); Jiawei Wang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Zhiqiang Zhang (Aerospace Information Research Institute, Chinese Academy of Sciences); Yong Wang (Aerospace Information Research Institute, Chinese Academy of Sciences);*

00:00 An X-band High-gain Omnidirectional Antenna

*Hui Wang (No. 36 Research Institute of China Electronics Technology Group Corporation); Zhiwen Zhang (Xi'an University of Science and Technology); Ling-Lu Chen (No. 36 Research Institute of China Electronics Technology Group Corporation);*

- 00:00 A High-Q Split-ring Resonator Based on Negative Resistance Circuit for Non-invasive Blood Glucose Monitoring  
*Zhengjiang Zhao (Shanghai University); Sihui Jia (Shanghai University); Zijian Gao (Shanghai University); Yucheng Feng (Shanghai University); Yongjin Zhou (Shanghai University);*
- 00:00 Design of a Miniaturized High Suppression Ceramic Dielectric Filter for 5G Base Stations  
*Dongxue Zhang (Chongqing Institute of Engineering); Bing Chen (China Automotive Engineering Research Institute Co., Ltd.); Rong Hu (Chongqing Institute of Engineering); Jian Yang (Chongqing Institute of Engineering); Danfeng Han (Changzhi University);*
- 00:00 Low-frequency Long-pulse Megawatt Gyrotron  
Invited  
*Yuriy K. Kalynov (Institute of Applied Physics, RAS); Vladimir Nikolaevich Manuilov (Institute of Applied Physics, RAS); Ivan V. Osharin (Institute of Applied Physics, RAS); Andrei V. Savilov (A.V. Gaponov-Grekhov Institute of Applied Physics, RAS); Vladislav Yu. Zaslavsky (Institute of Applied Physics, RAS);*
- 00:00 A Compact 1.7–2.3 GHz Power Amplifier with > 70% Efficiency Based on a CRLH Transmission Line  
*Katsunaru Urano (Shibaura Institute of Technology); Takuya Itoh (Shibaura Institute of Technology); Shinichi Tanaka (Shibaura Institute of Technology);*
- 00:00 Electromagnetically Integrated Self-powered Wireless Sensor System Enabled by a Twistrion-based CNT Energy Harvester  
*Chae-Lin Park (Korea Institute of Industrial Technology); Shi Hyeong Kim (Korea Institute of Industrial Technology);*
- 00:00 Single Beam Throughput Estimation of NGSO Satellite Constellation for Broadband Connectivity in Indonesia  
*Rama Setya Anggara (Telkom University); Heroe Wijanto (Telkom University); Budi Syihabuddin (Telkom University);*
- 00:00 Longitudinal Variability of Equatorial Spread-F: Comparison between Atlantic and Pacific Sectors during 2004  
*Zheng Wang (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); J. K. Shi (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); Z. W. Cheng (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); Q. Qi (Key Laboratory of Media Audio & Video (Communication University of China), Ministry of Education); G. J. Wang (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); C. Qiu (Key Laboratory of Media Audio & Video (Communication University of China), Ministry of Education); X. Wang (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS);*
- 00:00 Distributed SAR Spectral Fusion Strategy Based on a Modified SLC Image Model  
*Kexin Fan (National University of Defense Technology); Zhengquan Zhou (National University of Defense Technology); Chongyi Fan (National University of Defense Technology); Xiaotao Huang (National University of Defense Technology); Yueli Li (National University of Defense Technology);*
- 00:00 Synchronization Method for Phase-coded Passive Bistatic Radar Based on Segmented Differential Correlation  
*Yuxi Zheng (National University of Defense Technology); Jiameng Pan (National University of Defense Technology); Qinglong Bao (National University of Defense Technology); Xuan Zhang (Xi'an Electronic Engineering Research Institute); Jian Chen (National University of Defense Technology);*
- 00:00 Ship Detection from Landsat-8/9 Imageries Using Deep Neural Networks  
*Jiahao Li (Fudan University); Geng-Ming Jiang (Fudan University);*
- 00:00 Prediction of Internal Solitary Wave Propagation in the Indonesian Seas Using Multi-source Satellite Remote Sensing Combined with a Dual-network Model  
*Lina Sun (First Institute of Oceanography, Ministry of Natural Resources); J. M. Meng (First Institute of Oceanography, Ministry of Natural Resources); Z. X. Cao (First Institute of Oceanography, Ministry of Natural Resources); J. L. Zhao (First Institute of Oceanography, Ministry of Natural Resources); Hao Zhang (First Institute of Oceanography, Ministry of Natural Resources);*
- 00:00 A Study on Microwave Inverse Scattering Imaging Based on Dominant Current Scheme (DCS) Supervision  
*Xingbao Zhai (Zhengzhou University); Fazhong Shen (Zhengzhou University);*
- 00:00 Midas: Dynamic Virtual Machine Placement for Mission-critical Cloud Applications with Strict Interference Constraints  
*Xiao Gao (Tongji University); Zhongwei Xu (Tongji University); Meng Mei (Tongji University); Xilong Pei (Tongji University); Jiaying Chen (Tongji University);*
- 00:00 Full-bridge Inverter Driver for Magnetically Isolated Marx Circuits  
*Jie Deng (Southwest University of Science and Technology); Cong Fu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Shunqiang Wan (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology); Yinling Qing (Southwest University of Science and Technology);*

- 00:00 A Smart Detection Method for Battery Pack Voltage Inconsistency Based on Adaptive Time Window Division and Multi-dimensional Deviation Metrics  
*Rui Chen (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haotian Shi (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Hongrui Yu (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology);*
- 00:00 Wireless Power Transfer System with Parity-time Symmetry Based on High-order Compensation  
*Lei Zhao (Southwest University of Science and Technology); Yi Yu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Qi Liu (Southwest University of Science and Technology); Hao Yang (Southwest University of Science and Technology); Cheng Chen (Southwest University of Science and Technology); Chengcheng Wen (Southwest University of Science and Technology); Guozheng Zhang (Southwest University of Science and Technology);*
- 00:00 The Study of the Performance Optimization of VDMOS  
*Chiyuan Wang (Chengdu Technological University); Chunyu Xia (Chengdu Technological University); Xiaopei Chen (Chengdu Technological University);*
- 00:00 Optimized Design of a Multi-algorithm Integrated Hearing Aid Based on ESP32  
*Feng Yu Liu (Tongji University); De Liang Cao (Tongji University); Guo Chun Wan (Tongji University);*
- 00:00 Research and Design of a Portable Integrated Microfluidic Device  
*Chengyu Ma (Northwestern Polytechnical University); Xilong Lu (Northwestern Polytechnical University);*
- 00:00 A D-band Eight-way Power-combined CMOS Transmitter Front-end with Digital Adaptive Bias and PLL Co-design for Back-off Efficiency Enhancement  
*Yufan Xie (Guangzhou University); Lin Peng (Guangzhou University); Keshan Guo (Guangzhou University); Yibo Li (Guangzhou University); Yuqian Han (Guangzhou University); Yuming Su (Guangzhou University); Mengding Guo (Guangzhou University);*
- 00:00 Surface Factors Effects on Soil Moisture Retrieval from Space-borne GNSS-R Measurements  
*Shuo Zhang (Nanjing University of Information Science and Technology); Shuanggen Jin (Henan Polytechnic University);*
- 00:00 Airborne Microwave Hyperspectral Radiometer: Design and Flight Tests  
*Jieying He (National Space Science Center, Chinese Academy of Sciences); Xinbiao Wang (National Space Science Center, Chinese Academy of Sciences); Yu Zhang (National Space Science Center, Chinese Academy of Sciences); Chao Zhang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Double-layer Convolutional Neural Network Model for Robust River Water Level Estimation  
*Zeyu Li (Nanjing University of Posts and Telecommunications); Lingshan Bo (Nanjing University of Posts and Telecommunications); Jun Ao (Nanjing University of Posts and Telecommunications); Xiaolin Li (Nanjing University of Posts and Telecommunications); Yan Jia (Nanjing University of Posts and Telecommunications);*
- 00:00 Quantitative Analysis and Zoning of Driving Factors of GNSS-R Land Surface Reflectivity Spatial Differentiation  
*Zixuan Guo (Nanjing University of Information Science and Technology); Qingyun Yan (Nanjing University of Information Science and Technology);*
- 00:00 Statistical Analysis of Ionospheric Sporadic E Layer Occurrence over Hainan, China  
*Guojun Wang (National Space Science Center, CAS); Zheng Wang (National Space Science Center, CAS); Jiankui Shi (National Space Science Center, CAS); Zhengwei Cheng (National Space Science Center, CAS); Xiao Wang (National Space Science Center, CAS); Maosheng He (National Space Science Center, CAS); Sheping Shang (National Space Science Center, CAS);*
- 00:00 Using the Ionosonde to Study the Influence of Lightning Activity on Disturbances in the Upper Ionosphere  
*Zhengwei Cheng (National Space Science Center, Chinese Academy of Sciences); Gaopeng Lu (University of Science and Technology of China); Mao Zhang (University of Science and Technology of China); Hailiang Huang (University of Science and Technology of China); Guojun Wang (National Space Science Center, CAS); Zheng Wang (National Space Science Center, Chinese Academy of Sciences); Sheping Shang (National Space Science Center, Chinese Academy of Sciences); Xiao Wang (National Space Science Center, CAS);*
- 00:00 AI-based Estimation of Atmospheric Turbulence Strength from Long-range Imagery  
*Grigori A. Filimonov (V.E. Zuev Institute of Atmospheric Optics);*

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**Session 2A1**

**Remote Sensing of Atmosphere, Ocean and Land Using GNSS and Other Sensors**

**Wednesday AM, July 29, 2026**

**Room 1 - CR 1**

Organized by Shuanggen Jin, Yan Jia

Chaired by Shuanggen Jin, Yan Jia

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- 00:00 High-frequency Hybrid Sky-surface Wave Propagation Path Determination Using First-order Bragg Scattering Constraints  
*Xianzhou Yi (National University of Defense Technology); Junjie Zhou (National University of Defense Technology);*
- 00:00 Reconstruction of the Structural Characteristic of the Refractive Index Based on the Lidar Signal (Backscatter Enhancement Effect)  
*Stepan Olegovich Shestakov (V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Vadim V. Dudorov (V. E. Zuev Institute of Atmospheric Optics, SB RAS); Grigori A. Filimonov (V.E. Zuev Institute of Atmospheric Optics); I. A. Razenkov (V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS));*
- 00:00 Enhancing CYGNSS River Level Retrieval via Fusion of DDM Waveform Morphological Features  
*Quan Liu (East China Normal University); Heng Yu (Nanjing University of Posts and Telecommunications); Liwen Yang (Nanjing University of Posts and Telecommunications); Yan Jia (Nanjing University of Posts and Telecommunications);*
- 00:00 S2MethaSeg: A Deep Learning Framework for Methane Plume Segmentation Using Sentinel-2 Imagery  
*Qian Xiao (China University of Petroleum (East China)); Yong Wan (China University of Petroleum); Yu Liu (China University of Petroleum);*
- 00:00 Physical Informed Neural Network for Atmospheric Temperature and Humidity Retrieval from Microwave Radiometry Data  
*Dobrosław Pawłowicz Egorov (Kotel'nikov Institute of Radio Engineering and Electronics of RAS); Boris Georgievich Kutuza (Kotel'nikov Institute of Radio Engineering and Electronics of RAS); A. L. Afanasyev (Moscow Institute of Physics and Technology); A. A. Kozlova (Moscow Institute of Physics and Technology);*
- 00:00 Variations of the O<sup>+</sup>/H<sup>+</sup> Transition Height and Plasmasphere Electron Content Derived from Irkutsk Incoherent Scatter Radar Data During the February 2022 Geomagnetic Storm  
*D. S. Khabituev (Institute of Solar-Terrestrial Physics SB RAS); Valentin P. Lebedev (Institute of Solar-Terrestrial Physics, Siberian Branch, Russian Academy of Sciences); Vladimir Alexeyevich Ivonin (Institute of Solar-Terrestrial Physics SB RAS);*
- 00:00 Quantifying Climate Risk on Cryosphere in the Central Himalayas Since 1990  
*Abhishek Banerjee (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);*

- 00:00 Polar Sea Ice Products from Fengyun Satellites: Current Status and Future Prospects  
*Xiaochun Zhai (China Meteorological Administration); Lin Chen (China Meteorological Administration); Guangzhen Cao (China Meteorological Administration); Ling Sun (China Meteorological Administration); Xi-qing Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration);*

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**Session 2A2a**

**AI Plus Inverse Scattering and Inverse Design Problems**

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**Wednesday AM, July 29, 2026**

**Room 2 - CR 2**

Organized by Fang-Fang Wang, Yunyun Hu

Chaired by Fang-Fang Wang, Yunyun Hu

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- 00:00 Efficient 3D Surface Breaking Slot Reconstruction for ECNDT  
*Xun Xu (Nanjing University of Posts and Telecommunications); Yiming Liu (Nanjing University of Posts and Telecommunications); Fang-Fang Wang (Nanjing University of Posts and Telecommunications); Yang Bao (Nanjing University of Posts and Telecommunications);*
- 00:00 Power Pattern Synthesis of Holographic Metasurfaces Using the Wirtinger Flow Algorithm  
*Wei Cheng (Nanjing University of Posts and Telecommunications); Zi-Xuan Ou (Nanjing University of Posts and Telecommunications); Fang-Fang Wang (Nanjing University of Posts and Telecommunications);*
- 00:00 Logging-While-Drilling Electrical Imaging Method in Oil-based Mud  
*Yunxin Zeng (Southwest Petroleum University); Zhenguan Wu (Southwest Petroleum University); Ji-ayin Liang (Southwest Petroleum University); Guoping Huang (Southwest Petroleum University);*
- 00:00 PSF-consistent Scattering Center Reconstruction for Near-field RCS Inversion  
*Yue Ouyang (Nanjing University of Posts and Telecommunications); Ting Ting Yu (Nanjing University of Posts and Telecommunications); Dong Chen (Nanjing University of Posts and Telecommunications); Baoguang Liu (Nanjing University of Posts and Telecommunications); Yuan Yao (Nanjing University of Posts and Telecommunications); Yong Cheng (Nanjing University of Posts and Telecommunications);*
- 00:00 A Physics-driven Unet for Inverse Scattering Problems  
*Hui Wang (Tongji University); Yunyun Hu (Tongji University); Qing He (Tongji University); Mei Song Tong (Tongji University);*

- 00:00 An Efficient DCU-accelerated Parallel FDTD Method for Large-scale Electromagnetic Simulations  
*Youshen Tian (The Hong Kong Polytechnic University); Qingtao Sun (Eastern Institute of Technology, Ningbo); Wen Chen (The Hong Kong Polytechnic University); Qing Huo Liu (Eastern Institute of Technology);*

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**Session 2A2b**

**AI for Electromagnetics: Inverse Scattering and Inverse Design**

**Wednesday AM, July 29, 2026**

**Room 2 - CR 2**

Organized by Zhun Wei, Kuiwen Xu

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- 00:00 A Deep Learning Scheme Based on Virtual Antennas for Microwave Inverse Scattering  
*Xiyun Zhang (China Three Gorges University); Qinghe Zhang (China Three Gorges University); Zhen Wang (China Three Gorges University); Lei Zhang (Hubei Key Laboratory of Intelligent Vision Based Monitoring for Hydroelectric Engineering (China Three Gorges University)); Han Liu (China Three Gorges University); Fangqing Wen (China Three Gorges University);*
- 00:00 A Global Optimization Approach Integrating Surrogate Model and Dimensionality Reduction for the GPR Imaging  
*Yi Yang (China Three Gorges University); Qinghe Zhang (China Three Gorges University); Lei Zhang (Hubei Key Laboratory of Intelligent Vision Based Monitoring for Hydroelectric Engineering (China Three Gorges University)); Zhaoyang Shen (China Three Gorges University); Han Liu (China Three Gorges University);*
- 00:00 GPR Prospecting with LSTM-based Processing of the Time-domain Scattered Data  
*Zhen Wang (China Three Gorges University); Qinghe Zhang (China Three Gorges University); Lei Zhang (Hubei Key Laboratory of Intelligent Vision Based Monitoring for Hydroelectric Engineering (China Three Gorges University)); Zhaoyang Shen (China Three Gorges University); Han Liu (China Three Gorges University);*
- 00:00 A New Activation Function for Physics-driven Neural Networks in Electromagnetic Inverse Scattering  
*Yutong Du (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);*
- 00:00 Efficient 3D WCS-FDTD Simulations with an Autoformer-driven CPML  
*Yumeng Wu (Hangzhou Dianzi University); Ning Xu (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);*
- 00:00 Deep Reinforcement Learning Based IPD Filter Design with Eigenvalues Decomposition Method  
*Yu Cheng (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);*

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**Session 2A3a**

**Advanced SAR/PoLSAR Technologies and Applications**

**Wednesday AM, July 29, 2026**

**Room 3 - CR 3**

Organized by Toshifumi Moriyama, Suyun Wang

Chaired by Toshifumi Moriyama, Suyun Wang

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- 00:00 Performance Analysis of Deep Learning-based PolSAR Image Classification under Circular Polarization Basis  
*Shuaiying Zhang (National University of Defense Technology (NUDT)); Zhen Dong (National University of Defense Technology (NUDT)); Yucheng Gao (National University of Defense Technology (NUDT)); Xuecong Liu (China University of Geosciences (Wuhan)); Shuang Yang (National Satellite Ocean Application Service); Yarong Zou (Key Laboratory of Space Ocean Remote Sensing and Applications, Ministry of Natural Resources); Wentao An (Key Laboratory of Space Ocean Remote Sensing and Applications, Ministry of Natural Resources);*
- 00:00 Large Gradient Deformation Solution Method for Mining Area Based on SBAS-POT  
*Hai Huang (Land Satellite Remote Sensing Application Center, Ministry of Natural Resources); Xiang Zhang (Land Satellite Remote Sensing Application Center, Ministry of Natural Resources);*
- 00:00 Development of a Terahertz Mueller Polarimetry System for Three-dimensional Imaging  
*Suyun Wang (National Institute of Information and Communications Technology); Mahiro Hirose (Ibaraki University); Li Yi (Ibaraki University); Chih-Yuan Chu (National Taiwan University of Science and Technology); Chih-Wei Chiu (National Taiwan University of Science and Technology); Kun-Shan Chen (Nanjing University);*
- 00:00 DACF-Net: A Dynamic Attention and Context Fusion Network with Geometry-aware Multi-scale Refinement for SAR Ship Instance Segmentation  
*Shuang Yang (China University of Geosciences (Wuhan)); Xiang Zhang (China University of Geosciences); Wentao An (National Satellite Ocean Application Service); Wenyi Lu (China University of Geosciences (Wuhan)); Zhiqing Li (China University of Geosciences (Wuhan)); Nengcheng Chen (China University of Geosciences (Wuhan));*
- 00:00 Physics-based SAR Clutter Suppression by Spectral Kernel Deconvolution  
*Changyu Zhou (Tongji University);*

- 00:00 PEN: Ship-artifact Classification in SAR Imagery Using Adaptive Polarimetric Feature Extraction Network  
*Yimin Yang (Tsinghua University); Rui Zhang (Tsinghua University); Yingzhu Zhao (Tsinghua University); Xunhao Lin (Tsinghua University); Junjun Yin (University of Science and Technology); Jian Yang (Tsinghua University);*
- 00:00 Development of mm-Wave Ground Base Synthetic Aperture Radar for Full Polarimetric Observation  
*Toshifumi Moriyama (Nagasaki University); Kamo Hiroyuki (Nagasaki University); Hiroshi Tanaka (Nagasaki University); Yutaka Aoki (Nagasaki University);*

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**Session 2A3b**

**Remote Sensing of the Earth, Ocean, and Atmosphere**

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**Wednesday AM, July 29, 2026**

**Room 3 - CR 3**

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- 00:00 Generative Forecasting of Ionospheric Storms: Visualizing Spread-F Evolution via High-Fidelity Ionogram Prediction  
*Zheng Wang (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); P. D. Gao (Ministry of Education); G. J. Wang (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); J. K. Shi (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS); J. H. Cai (Hainan National Field Science Observation and Research Observatory for Space Weather); C. Qiu (Hainan National Field Science Observation and Research Observatory for Space Weather); K. Ding (State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS);*
- 00:00 Total Nitrogen Retrieval in the Yellow River Based on the WaSpec-Net Deep Synergistic Mechanism  
*Yuanyuan Zhang (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);*
- 00:00 Spatiotemporal Land Use and Land Cover Dynamics in the Yellow River Basin Using Sentinel-2 Imagery  
*Ci Song (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University); Huihui Ma (Henan Polytechnic University);*
- 00:00 Bridging the Spatial Resolution Gap: Quantitative Evaluation of MDGP Categorical Upscaling from Rover Targets to Hyperspectral Pixels  
*Yael E. Castrejon-Ocampo (Instituto Politécnico Nacional); Andrea I. Carranza-García (Instituto Politécnico Nacional);*
- 00:00 Information System for Analysis of Geophysical Data Obtained by Radiophysical Instruments of ISTP SB RAS  
*Nikita A. Gromik (Institute of Solar-Terrestrial Physics SB RAS); Vladimir Alexeyevich Ivonin (Institute of Solar-Terrestrial Physics SB RAS); Valentin P. Lebedev (Institute of Solar-Terrestrial Physics, Siberian Branch, Russian Academy of Sciences);*

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**Session 2A4**

**Electromagnetic Forces, from Fundamentals to Applications 1**

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**Wednesday AM, July 29, 2026**

**Room 4 - CR 8**

Organized by Olivier J. F. Martin, Xiaohao Xu, Shuailong Zhang

Chaired by Olivier J. F. Martin, Xiaohao Xu

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- 00:00 Metaphotonics for Biomedical Imaging and Sensing using Electromagnetic Energy  
*Inki Kim (Sungkyunkwan University (SKKU));*
- 00:00 Optical Manipulation in Vivo  
*Xiaoshuai Liu (Guangzhou University);*
- 00:00 Dielectrophoresis of Colloids in Electrolyte Conductivity Gradients  
*Raúl Fernández-Mateo (Universidad de Sevilla); Víctor Calero (Universidad de Oviedo); Pablo García-Sánchez (Universidad de Sevilla); Hywel Morgan (University of Southampton); Antonio Ramos (Universidad de Sevilla);*
- 00:00 Optical Meta-manipulation and Its Applications  
*Tianhua Shao (Nanjing University); Tianyue Li (The Hong Kong University of Science and Technology); Shu-Ming Wang (Nanjing University);*
- 00:00 Photochemical Tweezing and the Photoisomerization Force  
*Zouheir Sekkat (University Mohammed VI Polytechnic);*
- 00:00 Dynamic Chaos and Escape of Rayleigh Particles from a Time Modulated Optical Trap  
*E. N. Bulgakov (LV Kirensky Institute of Physics); K. N. Pichugin (LV Kirensky Institute of Physics); Dmitrii Nikolaevich Maksimov (Siberian Federal University);*
- 00:00 Coherent Spin Control in a Rapidly Rotating Nanodiamond Levitated in an Ion Trap  
*Yuanbin Jin (Shanxi University);*
- 00:00 Photothermal-shock Tweezers on Optical Microfibers  
*Shuangyi Linghu (Guizhou University); Liyi Wu (Guizhou University); Runlin Zhu (University of Shanghai for Science and Technology); Ruyi Gao (Guizhou University);*
- 00:00 Dielectrophoresis as a Quasi-static Electromagnetic Force: From Classical Theory to Cellular Applications  
*Ronald Pethig (The University of Edinburgh);*
- 00:00 Optical Forces Arising from Imaginary Poynting Momentum  
*Yuan Zhou (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*

- 00:00 Dielectrophoretic Force Estimation for Enhanced Particle Control  
*Siarhei Zavatski (Swiss Federal Institute of Technology Lausanne (EPFL)); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 A Gaussian Beam Method for Optical Field Construction along Arbitrary Curved Trajectories  
*Shaohui Yan (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*
- 00:00 Intelligent Algorithm-based Nanoscale Optical Tweezers  
*Xuchen Shan (Beihang University); Xiaolan Zhong (Beihang University); Fan Wang (Beihang University);*

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**Session 2A5a**

**Advanced Materials and Metamaterials for Microwave Devices and Antennas Application**

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**Wednesday AM, July 29, 2026**

**Room 5 - CR 9**

Organized by Rongguo Song

Chaired by Rongguo Song

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- 00:00 Design of the Beam-steering Antenna Based on Water-based Metasurface  
*Zhaoyang Shen (China Three Gorges University); Kai Zhou (China Three Gorges University);*
- 00:00 A Broadband Low-RCS High-power Waveguide Slot Array Antenna Based on Polarization Conversion Metasurface  
*Yanhong Yu (National University of Defense Technology); Qiang Zhang (National University of Defense Technology); Chengwei Yuan (National University of Defense Technology); Yunfei Sun (National University of Defense Technology); Quan Zhang (National University of Defense Technology);*
- 00:00 Broadband Band-pass Filter With Excellent Roll-off Characteristics Based on HMSIW-SSPP Hybrid Mode  
*Yichen Wang (Hangzhou Dianzi University); Baicao Pan (Hangzhou Dianzi University);*
- 00:00 Minkowski Fractal Metasurface-based Multilayer Absorber for K- and Ka-bands  
*Hee-Jo Lee (Daegu University);*
- 00:00 A Dual-band Circularly Polarized Antenna Based on Graphene Assembled Film  
*Jinying Dong (Wuhan University of Technology); Rongguo Song (Wuhan University of Technology);*
- 00:00 Inverse Design of Large Angle-stable FSS Based on C-GAN  
*Dou Tian (Chang'an University); Jiahao Li (Chang'an University); Yuqin Qian (Smart Operation Branch, Ningbo Rail Transit Group Co., Ltd.);*

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**Session 2A5b**

**Intelligent Antenna Systems and Electromagnetic Sensing: Methods and Applications**

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**Wednesday AM, July 29, 2026**

**Room 5 - CR 9**

Organized by Yuan Zhao, Xiaofeng Sun

Chaired by Yuan Zhao, Xiaofeng Sun

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- 00:00 Millimeter-wave Dual-band Patch Antenna Array Based on SIW Cavity-backed Slot Structure Loaded with Metal Fence  
*Rui Hu (Chengdu University of Information Technology); Guo-Hong Du (University of Science and Technology of China); Xiaofeng Sun (Chengdu University of Information Technology); Yi Xie (Chengdu University of Information Technology); Peng Liu (Chengdu University of Information Technology); Yue He (Chengdu University of Information Technology);*
- 00:00 A Shared-aperture S/X-band Dual-polarized Phased Array Antenna with Low Cross-polarization for Weather Radar Applications  
*Zihao Lan (College of Electronic Engineering, Chengdu University of Information Technology, Chengdu, China); Guo-Hong Du (University of Science and Technology of China); Xiaofeng Sun (Chengdu University of Information Technology); Junquan Chen (Chengdu University of Information Technology); Yulin Zhang (Chengdu University of Information Technology); Fengling Peng (Chengdu University of Information Technology);*
- 00:00 Scattering Characteristics and Neural Network Retrieval of Raindrops and Smoke Particles at X-band for Weather Radar  
*Zhilan Yang (Chengdu University of Information Technology); Xiaofeng Sun (Chengdu University of Information Technology); Guo-Hong Du (University of Science and Technology of China); Xiangyong Mou (Chengdu University of Information Technology); Huiyu Li (Chengdu University of Information Technology);*
- 00:00 A Ka-band Low-sidelobe Planar Array Antenna Based on Gap Waveguide MLW Coaxial Line Technology  
*Anji Chen (Chengdu University of Information Technology); Chuan Wu (Chengdu University of Information Technology); Xiaofeng Sun (Chengdu University of Information Technology); Bo Wei (The 95607th Unit of the Chinese People's Liberation Army); Chang-Ze Li (Air Force Engineering University);*

- 00:00 Internal Electromagnetic Environment Prediction of Apertured Enclosures Based on Random Forest Regression  
*Sen Zhang (Chengdu University of Information Technology); Bo-Yan Zhang (Chengdu University of Information Technology); Qiangming Cai (Southwest University of Science and Technology); Yuan Zhang (University of Electronic Science and Technology of China); Yuan Zhao (Chengdu University of Information Technology);*
- 00:00 Array Antenna Fault Detection Method Based on Convolutional Neural Networks  
*Yong Zhou (Chengdu University of Information Technology); Xu-Qiang Zhu (Chengdu University of Information Technology); Kai-Peng Yang (Chengdu University of Information Technology); Ji-Qian Wang (Chengdu Leidian Information Technology Co., Ltd.); Chenyang He (University of Nottingham); Yuan Zhao (Chengdu University of Information Technology);*

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**Session 2A6**

**Advanced THz Communication towards 6G**

**Wednesday AM, July 29, 2026**

**Room 6 - CR 10**

Organized by Wen Zhou, Xiaolong Pan

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- 00:00 Reconfigurable Intelligent Surface for Beam Steering in the Sub-Terahertz Band Based on a Micro-bridge Array  
*Steffen Klingel (RPTU Kaiserslautern-Landau); Marco Rahm (University of Kaiserslautern);*
- 00:00 Inverse Design of Optical Microring Resonators Using Deep Learning  
*Tong Wang (Fudan University); Sicong Xu (Fudan University); Qihang Wang (Fudan University); Jie Zhang (Fudan University); Zhihang Ou (Fudan University); Siqu Wang (Fudan University); Tensheng Zhang (Fudan University); Wen Zhou (Fudan University); Xi-anqun Xin (IEIT SYSTEMS (Beijing) Co., Ltd.);*
- 00:00 Experimental Modeling and Compensation of THz Rain Attenuation Link Using NC-MRC Algorithm with I/Q Mixer-based Receiver  
*Sicong Xu (Fudan University); Jianjun Yu (Fudan University); Ye Zhou (Fudan University); Siqu Wang (Fudan University); Jianyu Long (Fudan University); Xin Lu (Fudan University); Hansong Ma (Fudan University); Wen Zhou (Fudan University); Kaihui Wang (Fudan University); Weiping Li (Fudan University); Yifan Chen (Fudan University); Chen Jiang (Fudan University); Shaozhi Deng (Sun Yat-sen University); Ningsheng Xu (Fudan University);*
- 00:00 Contribution-aware Federated Edge Learning for Robust Resource Allocation in Massive IoT Networks  
*Hui Dun (Zhengzhou University of Light Industry); Ao Wei Liu (Zhengzhou University of Light Industry); Eryang Huan (Zhengzhou University of Light Industry); Zhiyong Niu (Zhengzhou University of Light Industry);*

- 00:00 Modulus-constrained VQVAE: A Robust Blind Neural Network Based Equalization Method for VLC Systems  
*Xingyu Lu (Chongqing University of Posts and Telecommunications);*
- 00:00 Weak-signal Deep-space Detection  
*Fang Wang (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Infrared Detection for Weak Deep-space Signals Research  
*Fang Wang (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Photonics-assisted mmWave ISAC System Using CE-Invited LFM-OTFS Waveform  
*Yanyi Wang (Xidian University);*
- 00:00 Research on Photonics-assisted THz ISAC with High Time-frequency Efficiency  
*Mingzheng Lei (Purple Mountain Laboratories);*
- 00:00 Low-complexity Baseband DSP Design and FPGA Real-time Verification for 6G Photonic Terahertz Communication Systems  
*Kaihui Wang (Fudan University);*
- 00:00 Research on Fiber Optic Image Transmission System Technology Integrating Artificial Intelligence and Vortex Light  
*Sitong Zhou (Beijing University of Posts and Telecommunications);*
- 00:00 Adaptive Optics and All-optical Processing Techniques for OAM Spatial Division Multiplexing toward High-quality Transmission  
*Huan Chang (Beijing Institute of Technology);*

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**Session 2A7a**

**Advances in Random Medium Scattering Theory and Remote Sensing Techniques**

**Wednesday AM, July 29, 2026**

**Room 7 - VIP R3**

Organized by Shurun Tan, Yanlei Du

Chaired by Shurun Tan, Yanlei Du

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- 00:00 Modeling and Validation of Geometry Coupling in a Ground-based Scatterometer  
*Zhijiao Cao (Zhejiang University); Jin Liang (Zhejiang University); Shurun Tan (Zhejiang University);*
- 00:00 Bridging Hydrodynamics and Electromagnetics: Numerical Investigation of Microwave Backscattering from Breaking Waves  
*Yingzhu Zhao (Tsinghua University); Yanlei Du (Aerospace Information Research Institute, Chinese Academy of Sciences); Peiwei Xie (South China Sea Institute of Oceanology, Chinese Academy of Sciences); Longxiang Linghu (South China Sea Institute of Oceanology, Chinese Academy of Sciences); Jian Yang (Tsinghua University);*

00:00 Active and Passive Modeling for the Low-frequency Satellite Observations of the Perennial Firn Aquifer  
*Haokui Xu (Beijing University of Technology);*

00:00 On the Use of Correlation from Sequential SAR Images in Coastline Detection  
*Yawei Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Wenjia Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Yanlei Du (Aerospace Information Research Institute, Chinese Academy of Sciences); Jinsong Chong (Aerospace Information Research Institute, Chinese Academy of Sciences);*

00:00 Multi-frequency Microwave Signatures of Layered Soil Moisture and Temperature Profile Variations Using an NMM3D-VIE-DDA Model  
*Shaojie Xu (Zhejiang University); Shurun Tan (Zhejiang University);*

00:00 Doppler Parameter Estimation for SAR Ocean Surface Current Retrieval Based on Doppler Spatial Ergodicity  
*Jianing Shao (Aerospace Information Research Institute, Chinese Academy of Sciences); Yanlei Du (Aerospace Information Research Institute, Chinese Academy of Sciences); Xiaofeng Yang (Nanjing University);*

00:00 Large-scale Voxel Electromagnetic Scattering in Bicontinuous Media via 3D U-Net Physics-informed Neural Network  
*Yuanhao Cao (Zhejiang University); Jiayi Du (Zhejiang University); Shurun Tan (Zhejiang University);*

00:00 LLM-guided Workflow Orchestration for Parameter Optimization in Snow Microwave Data Analysis through Forward Physical Models  
*Jiayi Du (Zhejiang University); Yuanhao Cao (Zhejiang University); Yiwen Fang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Heston Clagg Blackwell (Zhejiang University); Shurun Tan (Zhejiang University);*

00:00 A Physics-constrained Calibration Neural Network Framework for Bridging Electromagnetic Model-Observation Mismatch in Polar Ice Sheet Microwave Retrieval  
*Yuanhao Cao (Zhejiang University); Shurun Tan (Zhejiang University);*

00:00 Spatial Ergodicity Limits in Radar Scattering from Breaking Waves  
*Ruoxing Gao (Trinity College); Yanlei Du (Aerospace Information Research Institute, Chinese Academy of Sciences); Yingzhu Zhao (Tsinghua University);*

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**Session 2A7b**  
**Metalenses Design and Imaging Technology**

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**Wednesday AM, July 29, 2026**

**Room 7 - VIP R3**

Organized by Qun Ren, Hang Xu

Chaired by Qi Tan

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00:00 Analysis of the Influence of Phase Gradient and Polarization Conversion on the Performance of Terahertz Metasurface Lenses

*Kehan Yin (Tianjin University); Hang Xu (Tianjin University); Jianquan Yao (Tianjin University);*

00:00 Achromatic Broadband Metalenses Design Using Spatial Interleaving of Metasurface Units

*Yanting Zhao (Tianjin University); Hang Xu (Tianjin University); Miaoyi Hu (Tianjin University); Jianquan Yao (Tianjin University);*

00:00 Spectral-space Optical Encryption Imaging via Frequency-pinned High-Q Quasi-BIC Metasurfaces

*Dongdong Wei (Tianjin University); Qi Tan (Tianjin University); Fuguo Wang (Tianjin University); Rongrui Shi (Tianjin University); Wei Shi (Tianjin University); Hang Xu (Tianjin University); Jianquan Yao (Tianjin University);*

00:00 Terahertz Nonlocal Metalens with Independent Amplitude and Phase Modulation

*Rongrui Shi (Tianjin University); Qi Tan (Tianjin University); Dongdong Wei (Tianjin University); Fuguo Wang (Tianjin University); Xin Ding (Tianjin University); Hang Xu (Tianjin University); Jianquan Yao (Tianjin University);*

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**Session 2A8**  
**Multifunctional Metasurfaces: Fundamentals and Applications 1**

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**Wednesday AM, July 29, 2026**

**Room 8 - CR 11**

Organized by Jingcheng Zhang, Tianyue Li

Chaired by Jingcheng Zhang, Tianyue Li

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00:00 Meta-devices for Photonic and Quantum Applications

Keynote

*Din Ping Tsai (City University of Hong Kong);*

00:00 Optical Imaging Based on Metasurfaces

Invited

*Shu-Ming Wang (Nanjing University);*

00:00 Direct Imprinting of Geometric Phase on Linear Polarization in Metasurfaces with Engineered Exceptional Points

*Yaoguang Ma (Zhejiang University);*

00:00 Geometric Phase Metasurfaces: From Optics to Acoustics and Water Waves

Invited

*Shubo Wang (City University of Hong Kong);*

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- 00:00 Deep Learning Empowered Multidimensional Infrared  
Invited Upconversion Detections  
*Jinhui Chen (Xiamen University);*
- 00:00 Quantum Metasurfaces for Advanced Photon Sources  
Invited  
*Fei Ding (Eastern Institute of Technology);*
- 00:00 A Space-time Holographic Metasurface Antenna  
Invited  
*Geng-Bo Wu (City University of Hong Kong);*
- 00:00 Topological Light Waves from Metamaterials  
Invited  
*Yijie Shen (Nanyang Technological University);*
- 00:00 Metasurface-integrated Multi-functional Fiber Devices  
Invited  
*Yi-Feng Xiong (Nanjing University); Haotian Xu (Nanjing University); Xiangyu Ma (Nanjing University); Fei Xu (Nanjing University);*
- 00:00 Broadband Nonlinear Optical Devices on Geometric De-  
Invited signed LNOI Chips  
*Chunyu Huang (Nanjing University of Aeronautics and Astronautics); Yu Luo (Nanjing University of Aeronautics and Astronautics); Hui Liu (Nanjing University);*

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**Session 2A9**

**Acoustic/Elastic Metamaterials for Various Applications 2**

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**Wednesday AM, July 29, 2026**

**Room 9 - CR 12**

Organized by Fuyin Ma, Rui Zhu, Xue Jiang

Chaired by Fuyin Ma

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- 00:00 Multiphase Pentamode Materials and Underwater  
Invited Acoustic Coatings with Simultaneous Wavefront-manipulating and Energy Absorption Capabilities  
*Aiguo Zhao (Nanjing University of Technology);*
- 00:00 Underwater Acoustic-vortex Communication with En-  
Invited hanced Capacity and Cryptographic Information via Hydrostatic-pressure-immune Metasurfaces  
*Hao-Wen Dong (Beijing Institute of Technology);*
- 00:00 Spatial Coding Metastructures for Single-channel Dy-  
Invited namics Identification  
*Tianxi Jiang (University of Science and Technology of China);*
- 00:00 Design and Analysis of a Combined Nonlinear-acoustic  
Invited Black Hole Absorber for Panel Flutter Suppression  
*Hongli Ji (Nanjing University of Aeronautics and Astronautics); Zhuogeng Zhang (Nanjing University of Aeronautics and Astronautics); Jinhao Qiu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Multi-functional Metamaterials through Pre-Torsion  
Invited Design  
*Jianfei Yin (National University of Defense Technology); Xuegang Zhang (National University of Defense Technology);*

- 00:00 Non-Hermitian Topological States in Lossy Acoustic  
Invited Materials  
*Jien Wu (Changsha University of Science and Technology);*
- 00:00 Impact Protection to Energy-autonomous Monitor-  
Invited ing: Harnessing Auxetic Metamaterials for Self-powered Structural Sensing  
*Guobiao Hu (The Hong Kong University of Science and Technology (Guangzhou));*
- 00:00 Bypassing Dorsal Hand Veins Biometric Systems Using  
a Special Infrared Reflective Compound  
*Dobroslav Pavlovich Egorov (Kotelnikov Institute of Radioengineering and Electronics of RAS); P. V. Mizinov (HSE University);*
- 00:00 Extreme Damping in Metamaterials: From Theoretical  
Invited Prediction to Experimental Observation  
*Kaijun Yi (Beijing Institute of Technology);*
- 00:00 Research Status and Development Trends of Underwater  
Invited Acoustic Metamaterials  
*Bo Hu (Harbin Engineering University); Jianxu Zhang (Harbin Engineering University); Jintong Gao (Harbin Engineering University); Yiyang Gongye (Harbin Engineering University); Bowen Shi (Harbin Engineering University); Honglin Qu (Harbin Engineering University); Gang Li (Harbin Engineering University);*

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**Session 2A10**

**Metadevices: Emitters, Modulators, Sensors, and Detectors 1**

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**Wednesday AM, July 29, 2026**

**Room 10 - CR 13**

Organized by Jingxuan Wei, Danqing Wang, Zhaogang Dong

Chaired by Jingxuan Wei, Danqing Wang

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- 00:00 Asymmetric Directional and Ultra-broadband Thermal  
Emitters  
*Wenzi Yu (Shanghai Jiao Tong University); Jiahao Zhou (Shanghai Jiao Tong University); Mengqi Liu (Shanghai Jiao Tong University); Changying Zhao (Shanghai Jiao Tong University);*
- 00:00 Miniaturized Mid-infrared Spectroscopic Sensing Plat-  
Invited form based on Metasurface Thermal Emitters  
*Qin Chen (Jinan University); Long Wen (Jinan University);*
- 00:00 Lightwave Valleytronics Based on a Meta-waveguide Op-  
Invited toelectronic Chip  
*Haoran Ren (Monash University);*
- 00:00 High-performance Structural Color Based on Silicon  
Carbide Metasurface  
*Yongze Ren (Nanjing University of Posts and Telecommunications); Yuqi Zhang (Nanjing University of Posts and Telecommunications); Li Gao (Nanjing University of Posts and Telecommunications);*

- 00:00 Active Control of Nonreciprocal Thermal Radiation via  
Invited Hybrid Metastructures  
*Ye Ming Qing (Nanjing University of Posts and Telecommunications); Shunsuke Murai (Osaka Metropolitan University); Koichi Okamoto (Osaka Metropolitan University);*
- 00:00 Monolithically Integrated High-precision Infrared Polarization Detectors  
Invited  
*Jing Zhou (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Wireless Body Sensor Networks Based on Metamaterial Textiles  
Invited  
*Xi Tian (Tsinghua University);*
- 00:00 Design and Simulation of a Dual Resonant C-band Metamaterial Absorber for Potential Glucose Sensing Applications  
*Shah Faisal (GIK Institute of Engineering Sciences and Technology); Arbab Abdur Rahim (GIK Institute of Engineering Sciences and Technology); Bystrik Dolnik (Technical University of Kosice);*
- 00:00 Nonlocal Meta-optics: Addressing Fundamental Scaling Constraints in Imaging Systems  
Invited  
*Yuanmu Yang (Tsinghua University);*
- 00:00 Controlling Reflected Polarization and Wavefront from Transparent Media via Exploiting Symmetry-protected Metasurfaces  
Invited  
*Hongchen Chu (Nanjing Normal University); Xiaoxuan Ma (Nanjing Normal University); Xiang Xiong (Nanjing University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University); Yun Lai (Nanjing University);*
- 00:00 Temporal Faraday Effect Enabled by Floquet-induced Chirality  
*Neng Wang (Shenzhen University);*
- 00:00 Observation of Anomalous Wave Scattering at Interluminal Interfaces  
*Li Zhang (The University of Hong Kong);*
- 00:00 Time-varying Metamaterials on a Rotor Blade  
*Pavel Ginzburg (Tel Aviv University); Dmytro Vovchuk (Tel Aviv University); Anna Mikhailovskaya (Tel Aviv University); Konstantin Grotov (Tel Aviv University); Mikhail Tsukerman (Tel Aviv University); Omer Tsidki (Tel Aviv University); Denis Kolchanov (Tel Aviv University); Dmitry Dobrykh (Tel Aviv University); Sergey Geyman (Yuriy Fedkovych Chernivtsi National University); Mykola Khobzei (Yuriy Fedkovych Chernivtsi National University); Vladyslav Tkach (Yuriy Fedkovych Chernivtsi National University); Toms Salgals (Riga Technical University); Nataĭja Muračova (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Wave Dynamics at Spacetime Interface  
*Hao Hu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Probing the Dynamics of Time-varying Media Beyond Abrupt Temporal Interfaces  
*Lin Wu (Singapore University of Technology and Design (SUTD));*
- 00:00 Anomalous Maxwell-Garnett Theory for Photonic Time Crystals  
*Xiao Lin (Zhejiang University); Zheng Gong (Zhejiang University);*
- 00:00 Topological Wave Phenomena and Radiation Control in Photonic Time Crystals  
*Zihao He (Central South University); Sihao Zhang (Nankai University); Huanan Li (Nankai University); Xiang Ni (Central South University);*
- 00:00 Ghost-wave Momentum Bandgaps in Floquet Lattices  
*Junhua Dong (Nankai University); Huan He (Nankai University); Huanan Li (Nankai University);*

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**Session 2A11**
**Advances in Time-varying Metamaterials and Metasurfaces 1**


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**Wednesday AM, July 29, 2026**
**Room 11 - CR 15**

 Organized by Huanan Li, Xuchen Wang, Fu Liu,  
 Mohammad Sajjad Mirmoosa

 Chaired by Huanan Li, Xuchen Wang
 

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- 00:00 Quantum Light Emission from Spacetime Metamaterials  
*Iñigo Liberal (Universidad Pública de Navarra, Campus Arrosadía);*
- 00:00 Time Interface and PTC with Synthetic Dimensions  
*Luqi Yuan (Shanghai Jiao Tong University);*
- 00:00 Spatiotemporal Topological Phase Transitions in Photonic Spacetime Crystals  
*Zebin Zhu (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);*

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**Session 2A12**
**Quantum Photonic Devices and Quantum Network**


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**Wednesday AM, July 29, 2026**
**Room 12 - CR 16**

 Organized by Bo Jing, Chen-Zhi Yuan
 

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- 00:00 Topological Optical Non-reciprocity in Room-Invited temperature Atoms  
*Han Cai (Zhejiang University);*
- 00:00 Optomechanical Sensor Network  
Invited  
*Qiang Zhang (Shanxi University);*

- 00:00 Recent Progress on Quantum Interferometers  
Invited  
*Rui-Bo Jin (Hunan Normal University);*
- 00:00 Sub-picosecond Quantum Time Synchronization for Scalable Quantum Networks  
Invited  
*Xiao Xiang (National Time Service Center, Chinese Academy of Sciences); Jiarui Liu (Tsinghua University); Bingke Shi (National Time Service Center, Chinese Academy of Sciences); Huibo Hong (National Time Service Center, Chinese Academy of Sciences); Xudong Sun (Tsinghua University); Yuting Liu (National Time Service Center, Chinese Academy of Sciences); Runai Quan (National Time Service Center, Chinese Academy of Sciences); Tao Liu (National Time Service Center, Chinese Academy of Sciences); Shougang Zhang (National Time Service Center, Chinese Academy of Sciences); W. Zhang (Tsinghua University); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences);*
- 00:00 Optical Nonreciprocity Induced by Parametric Nonlinear Processes in PPLN Waveguide  
Invited  
*Chen-Zhi Yuan (Wuhan Institute of Technology); Shun-Ping Lu (Wuhan Institute of Technology); Rui-Bo Jin (Hunan Normal University);*
- 00:00 Remote Entanglement of Rydberg Atoms  
Invited  
*Chaowei Yang (University of Science and Technology of China);*
- 00:00 Experimental Demonstration of an Entangled Photonic Quantum Memristor Network  
Invited  
*Jiachao Wang (University of Shanghai for Science and Technology); Tengze Yang (University of Shanghai for Science and Technology); Qiming Zhang (University of Shanghai for Science and Technology); Wei Li (University of Shanghai for Science and Technology); Min Gu (University of Shanghai for Science and Technology);*
- 00:00 Wide-field Imaging of Microwaves with Spin Defects in Solids  
Invited  
*Feifei Zhou (China Jiliang University);*
- 00:00 Experimental Advances in Network-based Multiparty Quantum Information Processing  
Invited  
*Zheng-Da Li (Shenzhen International Quantum Academy);*
- 00:00 Integrated Quantum Light Source in Thin-film Lithium Tantalate for Scalable Photonic Manufacturing  
Invited  
*Yun-Ru Fan (University of Electronic Science and Technology of China); Bo-Wen Chen (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences); Dan Xu (University of Electronic Science and Technology of China); Cheng-Li Wang (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences); Xin Ou (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences); Qiang Zhou (University of Electronic Science and Technology of China);*

- 00:00 Fabrication of Near-infrared Single-photon Emitters in Silicon Carbide by Femtosecond Laser Direct Writing and Ion Implantation  
Invited  
*Qiang Li (ZJU-Hangzhou Global Scientific and Technological Innovation Center); Xiaodong Pi (Zhejiang University); Deren Yang (Zhejiang University);*

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**Session 2A13**

**Quantum Information Processing and Devices 1**

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**Wednesday AM, July 29, 2026**

**Room 13 - CR 17**

Organized by Guangwei Deng, Shihai Wei, Haizhi Song

Chaired by Haizhi Song

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- 00:00 Information Processing through Photonic Devices Enabled through Adaptive Laser Fabrication  
Invited  
*Martin J. Booth (University of Oxford);*
- 00:00 Noise-resistance Photon-correlation Parallel LiDAR Driven by Super-bunching Light  
Invited  
*Chengbing Qin (Shanxi University); Yu Yan (Taiyuan University of Technology); Jiamin Li (Taiyuan University of Technology); Xuedong Zhang (Shanxi University); Xiangdong Li (Shanxi University); Yuanyuan Li (Shanxi University); Liantuan Xiao (Shanxi University); Suotang Jia (Shanxi University);*
- 00:00 Two-photon Quantum Module Evaluation (TQME): A Scalable and Resource-efficient Benchmarking Approach  
Invited  
*Xiaoqi Zhou (Sun Yat-Sen University);*
- 00:00 Exploring Ultrastrong and Deep-strong Light-matter Coupling in Superconducting Circuits: From Symmetry Breaking to Record-high Coupling Strengths  
Invited  
*ShuaiPeng Wang (Beijing Academy of Quantum Information Sciences); Yuqing Wang (Beijing Academy of Quantum Information Sciences); Wenyan Wang (Beijing Academy of Quantum Information Sciences); Mo Chen (Beijing Academy of Quantum Information Sciences); Tie-Fu Li (Tsinghua University); J. Q. You (Zhejiang University);*
- 00:00 Demonstration of Long-distance Quantum Time Transfer Based on Energy-time Entangled Biphotons  
Invited  
*Huibo Hong (National Time Service Center, Chinese Academy of Sciences); Runai Quan (National Time Service Center, Chinese Academy of Sciences); Xiao Xiang (National Time Service Center, Chinese Academy of Sciences); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences);*
- 00:00 Nonlocal Signal Processing Based on Energy-time Entangled Source  
Invited  
*Xinghua Li (National Time Service Center, Chinese Academy of Sciences); Junyu Cao (National Time Service Center, Chinese Academy of Sciences); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences);*

00:00 On-chip Generation and Coherent Processing of Time-bin Entangled Photon States

*Hao Yu (The Hong Kong Polytechnic University);*

00:00 Towards a Finite Element Method Based Open-source Simulation Tool for Exciton-polariton Condensate Dynamics

*Madhu Bhatt (Indraprastha Institute of Information Technology (IIIT) Delhi); Arjun Tandon (Indraprastha Institute of Information Technology (IIIT) Delhi); Sayak Bhattacharya (Indraprastha Institute of Information Technology Delhi);*

00:00 Design of a Cascaded Entangled Quantum Light Source in Aluminum Nitride Nanoscale Waveguides via Geometric Quasi-phase Matching

*Han Wu (Southwest Institute of Technical Physics); Wei Zhang (Southwest Institute of Technical Physics); Dingquan Liu (Southwest Institute of Technical Physics); Ran Cheng (Southwest Institute of Technical Physics); Jing Qiu (Southwest Institute of Technical Physics); Qiang Xu (Southwest Institute of Technical Physics); Zichang Zhang (University of Electronic Science and Technology of China); Jieping Luo (Southwest Institute of Technical Physics); Si Shen (Southwest Institute of Technical Physics); Shuai Huang (Southwest Institute of Technical Physics); Yang Tan (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*

00:00 Enhanced Biological Imaging through Classical-quantum Dual Correlations

*Liu Yuan (Xihua University); Xueying Zhang (Xihua University); Lixin Peng (Xihua University); Huidong Li (Xihua University); Shihai Wei (Xihua University);*

00:00 Quantum-enhanced Optomechanical Electric Field Sensor

*Yaoyue Deng (Southwest Institute of Technical Physics); Guangwei Deng (University of Electronic Science and Technology of China); Hai-Zhi Song (Southwest Institute of Technical Physics & UESTC);*

00:00 Surface Acoustic Wave Driven 2D Nanoelectromechanical Resonators

*Pei-Qin Chen (University of Electronic Science and Technology of China); Ce Zhang (University of Electronic Science and Technology of China); Qin-Yuan Jiang (University of Electronic Science and Technology of China); You Wang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC); Guang-Can Guo (University of Science and Technology of China); Jia-Wei Fang (University of Electronic Science and Technology of China); Guangwei Deng (University of Electronic Science and Technology of China);*

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### Session 2A14

#### Terahertz Photonics 1

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Wednesday AM, July 29, 2026

Room 14 - VIP R5

Organized by Hao Tian, Nikolay V. Petrov, Mikhail V. Rybin, Li Li

Chaired by Nikolay V. Petrov, Mikhail V. Rybin

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00:00 Novel Optical Materials for the THz Frequency Range and Optical Elements Based on Them

*Gleb M. Katyba (Institute of the Solid State Physics of Russian Academy of Sciences); A. S. Kucheryavenko (Institute of the Solid State Physics of Russian Academy of Sciences); A.-E. P. Protopopova (Institute of the Solid State Physics of Russian Academy of Sciences); I. A. Larin (Institute of the Solid State Physics of Russian Academy of Sciences); P. A. Tsabolova (Institute of the Solid State Physics of Russian Academy of Sciences); K. I. Zaytsev (Prokhorov General Physics Institute of RAS); Vladimir N. Kurlov (Institute of Solid State Physics of Russian Academy of Sciences);*

00:00 Optical Metasurfaces for Manipulating Multispectral 3D Polarization Structures

*Xianzhong Chen (Heriot-Watt University); Hamad Ahmed (Heriot-Watt University); C. Zhang (Heriot-Watt University);*

00:00 Terahertz Waveguides and Manipulation: In-fiber Integrated Optical Devices in the Range of THz

*Yuanyuan Xiang (Harbin Engineering University); Fengjun Tian (Harbin Engineering University); Xinghua Yang (Harbin Engineering University); Li Li (Harbin Institute of Technology);*

00:00 Terahertz Highly Integrated Phased Array Based on GaN/GaAs-coding Metasurface

*Feng Lan (University of Electronic Science and Technology of China);*

00:00 Terahertz Phase Modulation Technology and Devices Utilizing Thick Liquid Crystal Layers

*Shuai Li (Hebei University of Technology);*

00:00 Bound States in the Continuum in Photonic Crystals: From Band Folding to Terahertz Wave Control

*Haiyu Meng (Xiangtan University);*

00:00 A Novel Method of Pulsed THz Solid Immersion Microscopy

*Vladislav A. Zhelnov (Prokhorov General Physics Institute of RAS); Demyan D. Rybnikov (Prokhorov General Physics Institute of RAS); Kirill Igorevich Zaytsev (Prokhorov General Physics Institute of RAS); Nikita V. Chernomyrdin (Bauman Moscow State Technical University);*

00:00 THz-IR Spectroscopy of Astrophysical Ice Analogues:  
Invited Optical Properties, Light Scattering and Structural Features

*Arseniy A. Gvdush (Bauman Moscow Technical University (BMSTU)); Maria K. Matveishina (Prokhorov General Physics Institute of the Russian Academy of Sciences); Kirill Igorevich Zaytsev (Prokhorov General Physics Institute of RAS);*

00:00 Multiplexed Gradient Metasurface for Complete Control of Terahertz Amplitude, Phase, and Polarization

*Yao Li (Tianjin University); Xueqian Zhang (Tianjin University); Jianguang Han (Tianjin University);*

00:00 Silicon Neuromorphic Circuit for User's Position Tracking in Terahertz Sensing-integrated Communications

*Sergey V. Seliverstov (Telecommunications R&D Institute, HSE University); A. Prikhodko (HSE University); M. Ershova (HSE University); I. Belikov (HSE University); G. N. Goltsman (HSE University); Alexander Shurakov (Moscow Pedagogical State University);*

00:00 Tunable Mode Coupling in Metasurface for Spectral  
Invited Modulation and Terahertz Metagrating

*Yuancheng Fan (Northwestern Polytechnical University); Yali Zeng (Northwestern Polytechnical University); Fuli Zhang (Northwestern Polytechnical University);*

00:00 A Tunable Tri-band Terahertz Sensor Based on  
Invited Graphene Metamaterial

*Maixia Fu (Henan University of Technology); Xiangshuai Liang (Henan University of Technology); Mengyi Liu (Henan University of Technology); Tiantian Zhang (Henan University of Technology);*

00:00 High-performance Metamaterial-inspired Quasi-optical  
Invited Instrumentation for the Range of subTHz/THz Frequencies

*Sergei Alexandrovich Kuznetsov (Novosibirsk State University); Alexander V. Gelfand (Institute of Semiconductor Physics SB RAS); Pavel Alexandrovich Lazorskiy (Institute of Semiconductor Physics SB RAS); Andrey V. Arzhannikov (Budker Institute of Nuclear Physics RAS); Victor N. Fedorinin (Institute of Semiconductor Physics SB RAS); Alexander N. Gentselev (Budker Institute of Nuclear Physics SB RAS); Nazar A. Nikolaev (Novosibirsk State University); Valeri I. Lapanik (A. N. Sevchenko Institute of Applied Physical Problems);*

00:00 Multifunctional Coding Metasurface for Terahertz Wave  
Invited Manipulation

*Jinhui Shi (Harbin Engineering University); Xiaohan Jiang (Harbin Engineering University); Wanying Liu (Harbin Engineering University); Chunying Guan (Harbin Engineering University);*

00:00 Terahertz Spectroscopy of Nonlinear Crystals and the  
Invited Potential of Their Application as New Radiation Sources

*Nazar A. Nikolaev (Novosibirsk State University);*

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**Session 2A15**

**Advanced Optical and Digital Signal Processing in Optical Communication Networks 1**

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**Wednesday AM, July 29, 2026**

**Room 15 - CR 18**

Organized by Feng Wen, Mingming Tan, Tianhua Xu

Chaired by Feng Wen

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00:00 Investigation of the Impairments and Characteristics for  
Invited High-speed Coherent Optical Communications with the Digital-to-analog Converters Using Analog Multiplexing

*Man Zhao (Tongji University); Junhe Zhou (Tongji University);*

00:00 High-precision Inversion and Physical Simulation of Dy-  
Invited namic Fiber Perturbation Parameters Based on SOP Evolution Trajectories

*Zhongyu Shi (Tongji University); Tengyuan Liu (Tongji University); Junhe Zhou (Tongji University);*

00:00 High-speed Modulators for AI Infrastructure  
Invited

*Armands Ostrovskis (Riga Technical University); Darja Cirjulina (Riga Technical University); Toms Salgals (Riga Technical University); Dan Li (KTH Royal Institute of Technology); Michael Koeningmann (Keysight Technologies Deutschland GmbH); Benjamin Krüger (Keysight Technologies Deutschland GmbH); Fabio Pittalà (Keysight Technologies Deutschland GmbH); Lu Zhang (Zhejiang University); Xianbin Yu (Zhejiang University); Richard Schatz (RISE Research Institutes of Sweden); Markus Gruen (Keysight Technologies Deutschland GmbH); Hadrien Louchet (Keysight Technologies Deutschland GmbH); Robert Jahn (Keysight Technologies Deutschland GmbH); Kazuo Yamaguchi (Keysight Technologies Deutschland GmbH); Vjaceslavs Bobrovs (Riga Technical University); Xiaodan Pang (Zhejiang University); Oskars Ozolins (Riga Technical University, Latvian Academy of Sciences);*

00:00 Tbit/s Random Bit Generation with Massively Parallel  
Invited Chaos

*Lu Zhang (Zhejiang University); Qiuzhuo Deng (Zhejiang University);*

00:00 Enhanced Capacity and Turbulence Resiliency in Mode  
Invited Division Multiplexing Free-space Optical Communications

*Yiming Li (Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences); Zhaozhong Chen (University of Glasgow); Gil M. Fernandes (University of Aveiro); David M. Benton (Aston University); Antonin Billaud (Cailabs); Martin P. J. Lavery (University of Glasgow); Andrew D. Ellis (Aston University);*

00:00 Broadband Integrated Waveguide Optical Parametric  
Invited Amplification and Its Applications in Optical Communications

*Ping Zhao (Sichuan University);*

- 00:00 Optical Integrated Communication, Sensing, and Power Transfer for 6G  
Invited  
*Chen Chen (Chongqing University);*
- 00:00 All-optical Regeneration of 200-Gbps PDM-QPSK Signals Based on Optical Parametric Amplification in a Semiconductor Optical Amplifier  
*Xin Hu (University of Electronic Science and Technology of China); Qiao Huang (University of Electronic Science and Technology of China); Baojian Wu (University of Electronic Science and Technology of China); Feng Wen (University of Electronic Science and Technology of China);*
- 00:00 Multidimensional-division-multiplexing Based Optical Transmission  
Invited  
*Jianping Li (Guangdong University of Technology);*
- 00:00 Ultra-high-speed Inter-satellite and Satellite-ground Optical Interconnection  
Invited  
*Xueshun Wang (Fiberhome Telecommunication Technologies Co., Ltd.); Jun Xiong (Fiberhome Telecommunication Technologies Co., Ltd.);*
- 00:00 Toward Integrated Sensing and Communications in All-optical Fiber and Wireless Networks  
Invited  
*Zhouyi Hu (Beijing Jiaotong University);*
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- Session 2A16**  
**Light-matter Interaction in Micro- and Nanostructures 1**
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- Wednesday AM, July 29, 2026**  
**Room 16 - CR 19**  
Organized by Feng Li, Xiaoqing Zhou  
Chaired by Feng Li
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- 00:00 Optimization of Luminescence in Strongly Coupled Plasmon-exciton Hybrids  
*Li Zhou (Wuhan University);*
- 00:00 Optical Field Control of Meta-atoms with Magneto-electric Coupling  
*Wenjia Li (Harbin Engineering University);*
- 00:00 Lithography-free Metasurfaces for Optical Imaging and Sensing  
*Jin Wang (King Abdullah University of Science and Technology); Qizhe Chen (King Abdullah University of Science and Technology); Han Gao (King Abdullah University of Science and Technology); Haifeng Hu (University of Shanghai for Science and Technology); Qiwen Zhan (University of Shanghai for Science and Technology); Qiaoqiang Gan (King Abdullah University of Science and Technology (KAUST));*
- 00:00 Band Engineering in Polaritonic Metasurfaces Using a Multimode Framework  
*Polina A. Pantiukhina (Australian National University); D. Smirnova (Australian National University); K. Koshelev (Australian National University);*
- 00:00 From Rotation to Dissipation: Stabilizing Localized and Vortex Waves in Cubic Nonlinear Media  
*Chunyan Li (Xidian University);*
- 00:00 Optimizing the Quality Factor of a Dielectric Spherical Particle  
*Vladimir Dmitrievich Igoshin (ITMO University); Mikhail I. Petrov (ITMO University);*
- 00:00 Magnetic-field-induced Spatial Intensity Modulation in Magnetophotonic Crystals under the Goos-Hänchen Effect  
*Anastasia A. Nerovnaia (Lomonosov Moscow State University); A. I. Musorin (Shenzhen MSU-BIT University); A. Yu. Frolov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 Room-temperature Optical Spin Hall Effect in Transition Metal Dichalcogenide Polaritonic Waveguides  
Invited  
*Qiuyu Shang (Université Côte d'Azur, Sorbonne Université); Mingyang Zhang (Université Côte d'Azur, CNRS, CRHEA); Kevin Dini (Nanyang Technological University); Maria V. Maggi (Université Clermont Auvergne); Nathan W. E. Seet (Nanyang Technological University); Tianshu Zhao (Nanyang Technological University); Maksym Gromovyi (Université Côte d'Azur); Sebastien Chenot (Université Côte d'Azur, CNRS, CRHEA); Blandine Alloing (Université Côte d'Azur, CNRS, CRHEA); A. Rasmita (Nanyang Technological University); Guillaume Malpuech (Université Clermont-Auvergne, CNRS); Timothy T. C. H. Liew (Nanyang Technological University); Dmitry Solnyshkov (Université Clermont-Auvergne, CNRS); Weibo Gao (Nanyang Technological University); Jesus Zuniga-Perez (CNRS);*
- 00:00 Polaritonic Spectra of Optical Mie Voids  
*Denis G. Baranov (Moscow Institute of Physics and Technology);*
- 00:00 Direct Laser Writing of VOX and Its Phase Transition by Electrically Driven for Functional Microelectronics  
*Dayu Li (University of Science and Technology of China); Yusheng Zhang (University of Science and Technology of China); Wenxiang Hou (University of Science and Technology of China); Xuefei Chen (University of Science and Technology of China); Liang Yang (University of Science and Technology of China);*

- 00:00 Bound State in the Continuum and Soliton Formation in GaN Waveguides  
Invited  
*Olha Bahrova (Institut Pascal CNRS); V. Develay (Université de Montpellier); I. Septembre (Universität Siegen); D. Bobylev (Université Clermont Auvergne, CNRS); C. Brimont (Université de Montpellier); L. Doyennette (Université de Montpellier); Blandine Alloing (Université Côte d'Azur, CNRS, CRHEA); H. Souissi (Université Paris-Saclay); E. Cambriil (Université Paris-Saclay); S. Bouchoule (Université Paris Saclay); Jesus Zuniga-Perez (CNRS); Dmitry Solnyshkov (Université Clermont-Auvergne, CNRS); Guillaume Malpuech (Université Clermont-Auvergne, CNRS); T. Guillet (Université de Montpellier);*
- 00:00 Exciton-polaritons in All-TMDC SnS<sub>2</sub>/WS<sub>2</sub>/SnS<sub>2</sub> Vertical Heterostructure Microdisks  
*Prokhor A. Alekseev (Ioffe Institute); K. A. Gasnikova (Ioffe Institute); M. E. Popov (Ioffe Institute); I. A. Eliseyev (Ioffe Institute); V. Yu. Davydov (Ioffe Institute); Vasily Kravtsov (ITMO University); Alexey D. Bolshakov (Moscow Institute of Physics and Technology);*
- 00:00 Collective Effects in Periodic and Aperiodic Plexcitonic Crystals  
*Andrea Toma (Istituto Italiano di Tecnologia);*
- 00:00 Amplified Spontaneous Emission and Microresonator Formation in Perovskite Nanocrystal Films via Femtosecond Laser Processing  
*Lev E. Zelenkov (Harbin Institute of Technology); Sergey V. Makarov (ITMO University / Harbin Engineering University); D. S. Gets (ITMO University);*

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**Session 2A17**

**Chiral Light-matter Interactions in Nonlocal Metasurfaces 1**

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**Wednesday AM, July 29, 2026**

**Room 17 - CR 20**

Organized by Yuri Kivshar, Zhanghua Han, Maxim V. Gorkunov

Chaired by Yuri Kivshar, Maxim V. Gorkunov

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- 00:00 Spin-Momentum-Locked Chiral Emission from Nonlocal Metasurfaces  
*Shaojun Wang (Soochow University);*
- 00:00 Metalasers with Arbitrary Wave Front  
Invited  
*Qinghai Song (Harbin Institute of Technology);*
- 00:00 Terahertz Metasurface by Laser-induced Graphene and Its Chiral Applications  
*Bin Hu (Beijing Institute of Technology); Xudong Wu (Beijing Institute of Technology); Haoyang Li (Beijing Institute of Technology); Bowen Deng (Beijing Institute of Technology); Zongyuan Wang (Beijing Institute of Technology);*

- 00:00 Opening the Polarization Channel in Nonlinear Chiroptical Scattering  
*Ventsislav K. Valev (University of Bath);*
- 00:00 Tunable Geometric-phase Metasurface for Active Beam Switching in Tamm Plasmon-polariton Structures  
*Dmitrii A. Pykhtin (Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science); Rashid Gelmedinovich Bikbaev (Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science); Kuo-Ping Chen (National Tsing Hua University); Wei Lee (National Yang Ming Chiao Tung University); Ivan Vladimirovich Timofeev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS);*
- 00:00 Mueller-matrix Polarimetry as a Universal Tool for Chiral Light-matter Interactions  
*Minghao Li (University of Basel);*
- 00:00 Flexible Metasurface Stickers with Nonlocal Coupling  
*Shunsuke Murai (Osaka Metropolitan University); J. He (Kyoto University); T. Y. Lo (Kyoto University); J. T.Y. Tse (Kyoto University); K. Tanaka (Kyoto University); K. Okamoto (Osaka Metropolitan University);*
- 00:00 Chiral Plasmonic Materials with Strong and Dynamically Programmable Chiroptical Responses  
*Chunhong Ye (ShanghaiTech University);*
- 00:00 Recent Advances in Chiral Nonlinear Metaphotonics  
Keynote  
*Yuri Kivshar (Australian National University);*
- 00:00 Chiral Collective Oscillations in Photonic Crystal Slab  
Invited  
*Nianyuan Lv (Peking University); Ye Chen (Peking University); Zixuan Zhang (Peking University); Chao Peng (Peking University);*
- 00:00 Casimir Effect in Twisted Photonic Gratings with In-plane Chirality  
*Natalia S. Salakhova (Skolkovo Institute of Science and Technology); Sergey A. Dyakov (Skolkovo Institute of Science and Technology); Ilia M. Fradkin (Skolkovo Institute of Science and Technology); Nikolay A. Gippius (Skolkovo Institute of Science and Technology);*

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**Session 2A18**

**Recent Developments of Diffractive Optical Sensors Using Machine Learning 2**

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**Wednesday AM, July 29, 2026**

**Room 18 - VIP R8**

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

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- 00:00 Decomposition of Optical Vortices under Tight Focusing  
Invited Conditions  
*Sergey S. Stafeev (NRC "Kurchatov Institute"); Victor V. Kotlyar (NRC "Kurchatov Institute");*

00:00 Machine-Learning Techniques for Controlled Hybrid  
Invited Quantum Systems toward Quantum Information  
*Shirong Lin (Shanghai Jiao Tong University);*

00:00 Optical Physical Learning Machines with Multiple Light  
Invited Scattering Media  
*Hao Wang (City University of Hong Kong); Ziao Wang (Sorbonne Université, Centre National de la Recherche Scientifique (CNRS)); Jianqi Hu (The University of Hong Kong); Qiang Liu (Tsinghua University); Sylvain Gigan (Sorbonne Université, Centre National de la Recherche Scientifique (CNRS));*

00:00 Simulating Finite Resonant Photonic Structures with  
Invited Varying Parameters Using Spatiotemporal Coupled-mode Theory  
*Dmitry A. Bykov (Image Processing Systems Institute, NRC “Kurchatov Institute”); Evgeni A. Bezus (Image Processing Systems Institute, NRC “Kurchatov Institute”); Vladimir V. Podlipnov (Samara National Research University); Leonid L. Doskolovich (Image Processing Systems Institute, NRC “Kurchatov Institute”);*

00:00 Classifying Optical Skyrmions with Deep Diffractive  
Invited Neural Networks  
*Isaac Nape (University of the Witwatersrand); Andrew Forbes (University of the Witwatersrand); Hadrian Bezuidenhout (University of the Witwatersrand); Ram Khumar (University of the Witwatersrand); Cade Peters (University of the Witwatersrand);*

00:00 Structured Radiation Generated with Metaphotonics  
Invited  
*Yuri Kivshar (Australian National University);*

00:00 Learned Phase Control in Digital Lasers for Recon-  
figurible Structured Light Generation Using Machine-  
learning  
*Shu-Chun Chu (National Cheng Kung University); Yu-Che Wu (National Cheng Kung University);*

00:00 Recent Progress in Multichannel Diffractive Wavefront  
Sensing Using Machine Learning  
*Pavel A. Khorin (Samara National Research University); Svetlana Nikolaevna Khonina (Samara National Research University);*

00:00 Large Scale Optimization of Cascaded Diffractive Opti-  
Invited cal Systems  
*Joao Cunha (International Iberian Nanotechnology Laboratory); Filipe Camarinho (International Iberian Nanotechnology Laboratory); Diogo E. Aguiar (International Iberian Nanotechnology Laboratory);*

00:00 Development and Characterizing of Optical Components  
Invited for Visible and Terahertz Bands  
*Nikolay V. Petrov (ITMO University);*

00:00 Combining High-resolution Silicon Nanofabrication with  
Invited Inverse Design for High-performance Silicon Nanophotonics  
*Soren Stobbe (Technical University of Denmark);*

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**Session 2A19**  
**Non-Hermitian Photonics 1**

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**Wednesday AM, July 29, 2026**

**Room 19 - CR 27**

Organized by Mikhail V. Rybin, Ekaterina E. Maslova,  
Andrey V. Novitsky, Andrey A. Bogdanov

Chaired by Mikhail V. Rybin, Ekaterina E. Maslova

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00:00 Frequency-detuned Exceptional Surface Mediated by a  
Invited Giant Metaatom

*Qiong Wu (Tongji University); Yong Sun (Tongji University); Zhiwei Guo (Tongji University); Haitao Jiang (Tongji University); Hong Chen (Tongji University);*

00:00 Chiral Spin-Orbit-Interactions Steering via EP Induced  
Topological Reconstruction

*Qiuchen Yan (Peking University); Qinghong Lyu (Peking University); Xiaoyong Hu (Peking University); Qihuang Gong (Peking University);*

00:00 Chirality and Nonlinearity in Complex Nanophotonic  
KeynoteSystems

*Masaya Notomi (NTT Corporation);*

00:00 Formation of Loss-protected States in Non-Markovian  
Quasi-PT-symmetric Systems

*Timofey T. Sergeev (Dukhov Research Institute of Automatics (VNIIA)); Evgeny S. Andrianov (Dukhov Research Institute of Automatics (VNIIA)); Alexander A. Zyablovsky (Dukhov Research Institute of Automatics (VNIIA));*

00:00 Non-Hermitian Thermal Coupling Sensor

Invited

*Qiang-Kai-Lai Huang (Zhejiang University); Yanxiang Wang (Zhejiang University); Ying Li (Zhejiang University);*

00:00 Symmetry Breaking Effects on Bound States in the Con-  
tinuum

*Kliment V. Semushev (ITMO University); Z. Zhao (Qingdao Innovation and Development Center of Harbin Engineering University); Mikhail V. Rybin (ITMO University); Ekaterina E. Maslova (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);*

00:00 Higher-order Skin Effects and Defect Topology in Non-  
Invited Hermitian Electrical Circuits

*Shuo Liu (Southeast University); Shaojie Ma (Fudan University); Ce Shang (Aerospace Information Research Institute, Chinese Academy of Sciences); Tie Jun Cui (Southeast University);*

00:00 Exceptional Points of Arbitrary Orders via Non-  
Markovian Dynamics with Revivals

*Timofey T. Sergeev (Dukhov Research Institute of Automatics (VNIIA)); Alexander A. Zyablovsky (Dukhov Research Institute of Automatics (VNIIA)); Evgeny S. Andrianov (Dukhov Research Institute of Automatics (VNIIA));*

- 00:00 Non-Hermitian Valley Filter from Uniform Loss  
Invited  
*Sijie Yue (Nanjing University); Wentao Xie (The Chinese University of Hong Kong); Kai Shao (Nanjing University); Hong-Yu Zou (Jiangsu University); Bing-Bing Wang (Jiangsu University); Hong-Xiang Sun (Jiangsu University); Y. X. Zhao (The University of Hong Kong); Wei Chen (Nanjing University); Hao-ran Xue (The Chinese University of Hong Kong);*
- 00:00 Temporal Coupled Mode Theory for Isolated Resonances in Dielectric Metasurfaces  
Invited  
*Dmitrii Nikolaevich Maksimov (Siberian Federal University); P. S. Pankin (ITMO University); D.-W. Kim (ITMO University); Mingzhao Song (Harbin Engineering University); C. Peng (Peking University); A. A. Bogdanov (ITMO University);*
- 00:00 Symmetry-protected Control of Liouvillian Topological Phases via Hamiltonian Band Topology  
Invited  
*Linhu Li (Quantum Science Center of Guangdong-Hong Kong-Macao Greater Bay Area (Guangdong));*
- 00:00 Photonic Spin Hall Shift in Mie Scattering  
*Aizaz Khan (Soochow University); Nikolay Solodovchenko (ITMO University); Dongliang Gao (Soochow University); Denis Kislov (Moscow Institute of Physics and Technology); Xiaoying Gu (Soochow University); Yuchen Sun (Nanyang Technological University); Lei Gao (Suzhou City University); Cheng-Wei Qiu (National University of Singapore); Susanna Rozental (Moscow Center for Advanced Studies); Vjaceslavs Bobrovs (Riga Technical University); Olga Koval (National Research Center "Kurchatov Institute"); Vassili A. Fedotov (Skolkovo Institute of Science and Technology); Aleksandr Sergeevich Shalin (Moscow Institute of Physics and Technology);*

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**Session 2A20**

**Special Session of Metamaterials in Honor of Sir John Pendry**

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Wednesday AM, July 29, 2026

Room 20 - CR 28

Organized by Yu Luo, Hongsheng Chen

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**Session 2A21**

**Flexible Photonics: Exploring Applications and Future Potential of Optical Technologies on Compliant Platforms 2**

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Wednesday AM, July 29, 2026

Room 21 - CR 29

Organized by Lan Li, Lei Zhang, Tian Gu

Chaired by Lan Li

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- 00:00 Heterogeneous Integrated Flexible Optical Modulators  
Invited  
*Junjia Wang (Southeast University);*
- 00:00 Microcomb Driven Parallel Optical Computing  
Invited  
*Peng Xie (Shanghai Institute of Optics and Fine Mechanics);*
- 00:00 Broadband Optical Power Coupling with Multimode Operation for MDM Systems  
Invited  
*Xi-Bin Wang (Jilin University); Shangrong Li (Jilin University); Yushu Fu (Jilin University); Shijie Sun (Jilin University); Daming Zhang (Jilin University);*
- 00:00 Compact Plasmonic Waveguide-integrated Optoelectronic Device  
*Jialing Jian (Jiangnan University); Jianghong Wu (Westlake University); Yuting Ye (Westlake University); Qingyan Deng (Westlake University); Lan Li (Westlake University);*
- 00:00 Mechanoluminescent Optical Fibers: Enabling Self-powered, Distributed, and Vision-based Sensing for Adaptive Opto-Mechanical Platforms  
Invited  
*Jiulin Gan (South China University of Technology);*
- 00:00 Chalcogenide Glasses for Advanced Optoelectronic Applications  
Invited  
*Changgui Lin (Ningbo University); Shiliang Kang (Ningbo University); Chengwe Gao (Ningbo University); Linling Tan (Ningbo University); Yanqing Fu (Ningbo University); Jinjin Chen (Ningbo University); Shizun Dai (Ningbo University);*
- 00:00 Smartphone-integrated Flexible Optical Fiber Sensor Platform for Healthcare Monitoring Applications  
Invited  
*Rui Min (Beijing Normal University);*
- 00:00 Intelligent Fiber Devices and Equipment  
Invited  
*Pan Li (Central China Normal University);*
- 00:00 Flexible Magnetically Actuated Fiberbot for Minimally Invasive Therapeutic Interventions  
Invited  
*Jingjing Guo (Beihang University);*
- 00:00 Strain-mediated Self-morphing Multimaterial Polymer Optical Fibers for Wearable Sensing  
Invited  
*Kaiwei Li (Jilin University);*
- 00:00 Insect-inspired Micro-optical Antenna Enables Ultrasensitive Multisensory Perception  
*Xitao Tu (Zhejiang University); Chen Qian (Zhejiang University); Tao Feng (Zhejiang University); Yuqi Zhen (Zhejiang University); Bowen Cui (Zhejiang University); Tiefeng Li (Zhejiang University); Limin Tong (Zhejiang University); Lei Zhang (Zhejiang University);*

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**Session 2A22**

**Poster Session 4**

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Wednesday AM, July 29, 2026

9:00 AM - 12:00 AM

Poster Area

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- 00:00 Phase Synchronization of Non-cooperative Bistatic Radar Based on FPGA  
*Long Chen (National University of Defense Technology); Xuesong Wang (National University of Defense Technology); Jiameng Pan (National University of Defense Technology); Qinglong Bao (National University of Defense Technology);*
- 00:00 Research and Design of Multi-band Antenna Based on Regulation of Glass Dielectric Layer  
*Jiayi Chen (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 Design of a Triple-frequency Megawatt-class Gyrotron Based on Interaction Length Optimization  
*Xinyin Cao (Peking University); Yu-Heng Qian (Peking University); Feng Zhang (Peking University); Jia-Ji Feng (Peking University); Chao-Hai Du (Peking University);*
- 00:00 Polarization-insensitive Edge Coupler on a 500 nm SOI Platform  
*Kaixiang Zhang (University of Shanghai for Science and Technology); Muhammad Shemyal Nisar (University of Shanghai for Science and Technology (USST));*
- 00:00 Calculation and Analysis of Bistatic Scattering Characteristics of Chaff Clouds Based on Method of Moments  
*Yue Li (Xidian University); Jiahao Xu (Xidian University); Yanchun Zuo (Xidian University); Yujie He (Xidian University); Jifa Li (Xidian University); Lixin Guo (Xidian University); Wei Liu (Xidian University);*
- 00:00 A Stokes Reception Approach for Underwater Visible Light Communication  
*Yuhan Hu (Fudan University); Zhe Feng (Fudan University); Zhiwu Chen (Fudan University); Zhilan Lu (Fudan University); Yunkai Wang (Fudan University); Ruize Jin (Fudan University); Zengyi Xu (Fudan University); Nan Chi (Fudan University);*
- 00:00 Surface Defects Detection of CFRP Based on a Novel Waveguide Probe Loaded with Split Ring Resonators in Millimeter-wave Frequency  
*Jiatong Zhou (Xi'an University of Technology); Chenbo Zheng (Xi'an University of Technology); Wei Quan (Xi'an University of Technology);*
- 00:00 Design of a Low-loss Coaxial-GCPW-microstrip Transition Structure for the Millimeter-wave Band  
*Hangjiang Xiao (Southwest University of Science and Technology); Zuxue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Ji Li (Southwest University of Science and Technology);*
- 00:00 Hierarchical Direction of Arrival Estimation Algorithm for Millimeter-wave Radar  
*De Liang Cao (Tongji University); Feng Yu Liu (Tongji University); Yi Fan Guo (Tongji University); Guo Chun Wan (Tongji University);*
- 00:00 Monolithic Gold-decorated Indium Gallium Oxide for Solar-driven Photocatalytic Applications  
*Riccardo Trevia (University of Genova); Andrea Lanfranchi (University of Genova); Davide Pratolongo (University of Genova); Davide Comoretto (University of Genova); Giovanni Manfredi (Micamo Lab); Paola Lova (University of Genova);*
- 00:00 Research on Beam-wave Energy Exchange in the Triple-gap Injection Cavity of a Broadband Klystron Amplifier  
*Yuli Wang (Tsinghua University); Ping Wu (Northwest Institute of Nuclear Technology); Jun Sun (Northwest Institute of Nuclear Technology); Yibing Cao (Northwest Institute of Nuclear Technology); Xianchen Bai (Northwest Institute of Nuclear Technology); Ruidong Hou (Northwest Institute of Nuclear Technology);*
- 00:00 Development of a Deep Learning-based Fast Radiative Transfer Model in Mid-infrared and Thermal Infrared Channels  
*Boyu Huang (Fudan University); Gengming Jiang (Fudan University);*
- 00:00 A Fast Characterization Method for Target Dynamic Electromagnetic Characteristics Based on 3D Scattered Point Interpolation  
*Zeng Yang (National Key Laboratory of Scattering and Radiation); Tian-Xu Yan (Shanghai Institute of Mechanical and Electrical Engineering); Ming Feng (National Key Laboratory of Scattering and Radiation); Xiaolin Mi (National Key Laboratory of Scattering and Radiation); Zhi-Yong Huang (National Key Laboratory of Scattering and Radiation); Zhijie Xie (National Key Laboratory of Scattering and Radiation);*

- 00:00 Simulation of DC-DC Power Circuit EMS in High-field-strength Electromagnetic Environments  
*Jia-Hao Wang (Southwest University of Science and Technology); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd); Qiangming Cai (Southwest University of Science and Technology); Cheng Liu (Southwest University of Science and Technology); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Longjian Zhou (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Bo Pu (DeTooLIC Technology Co., Ltd.); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Temperature Effect on Periodic Stub-based Crosstalk Suppression in High-speed Circuits  
*Yujie Song (Southwest University of Science and Technology); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Zhongkun Feng (Southwest University of Science and Technology); Bin Xie (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Tao Bai (Southwest University of Science and Technology); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Improvement on the Measurement Method for Surface Traveling Wave Attenuation Ratio of RAM  
*Jingxuan Yang (National Key Laboratory of Scattering and Radiation); Xingyun Zhang (National Key Laboratory of Scattering and Radiation); Xilong Li (National Key Laboratory of Scattering and Radiation); Fang Liu (National Key Laboratory of Scattering and Radiation); Zongtao Zhang (National Key Laboratory of Scattering and Radiation);*
- 00:00 High Absorption by Good Conductors under Grazing Incidence  
*Guangfu Chen (Soochow University); Yuxuan Liu (Soochow University); Jie Luo (Soochow University);*
- 00:00 All-optical Nonlinear Activation Functions Based on Optical Metasurfaces  
*Shiyang Cao (Beijing University of Posts and Telecommunications); Hailun Xie (Beijing University of Posts and Telecommunications); Lili Gui (Beijing University of Posts and Telecommunications); Kun Xu (Beijing University of Posts and Telecommunications);*
- 00:00 Tamm Plasmon Polariton Based Tunable Hot-electron Photodetector  
*Yuri V. Konov (Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science); Dmitrii A. Pykhtin (Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science); Rashid Gelmedinovich Bikbaev (Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science); Ivan Vladimirovich Timofeev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS);*
- 00:00 Helicity Sensitive Terahertz Detection in Monolayer 1T'-WTe<sub>2</sub>  
*Ting Wang (Nano Science and Technology Institute of University of Science and Technology of China); Xuechao Yu (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences);*
- 00:00 Fluid-assisted Tunable Metasurface Metalens for Adaptive Optical Wireless Communication  
*Noreen Raheem (Information Technology University of the Punjab (ITU)); Nasir Mahmood (Suzhou City University);*
- 00:00 Excitation of Unidirectionally Coupled and Unidirectionally Guided Resonant Modes in Microcavity with Dye-doped Cholesteric  
*Mikhail Nikolaevich Krakhalev (Siberian Federal University); Pavel Sergeevich Pankin (Siberian Federal University); Vitaly Sergeevich Sutormin (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Daniil S. Buzin (Siberian Federal University); Stepan Vasilievich Nabol (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Denis Andreevich Kostikov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Abylgazy Sabiralievich Abdullaev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Dmitrii Nikolaevich Maksimov (Siberian Federal University); Ivan Vladimirovich Timofeev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Victor Yakovlevich Zyryanov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS);*
- 00:00 Toward a Holistic Monitoring Framework for Forest Drainage Systems Using LiDAR and Distributed Photonic Sensing  
*Mairis Stempers (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University); Oskars Ozoliņš (Riga Technical University, Latvian Academy of Sciences);*

- 00:00 Development and Characterization of a Fiber-based Ring Resonator for Telecommunication Networks  
*Dilan Enrique Ortiz Blanco (Riga Technical University); Janis Alnis (University of Latvia); Janis Braunfelds (Riga Technical University); Inga Brice (University of Latvia); Sintija Berzina (Riga Technical University (RTU)); Ints Murans (Riga Technical University); Ricards Kudojars (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University); Jurgis Porins (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University); Toms Salgals (Riga Technical University);*
- 00:00 Electro-optically Co-modulated  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> Floating-gate Transistors for Neuromorphic Computing  
*Tiwei Chen (University of Science and Technology of China); Chunhong Zeng (University of Science and Technology of China); Yu Hu (University of Science and Technology of China); Xiaodong Zhang (University of Science and Technology of China); Baoshun Zhang (University of Science and Technology of China);*
- 00:00 Synergistic Mixed-cation and Microcavity Engineering for Low-threshold Lasing in Quasi-2D Perovskites  
*Xiangmei Ning (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xiaoyang Guo (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Tienan Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Li Song (Hebei University of Technology); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*
- 00:00 A Full-metal W-band Antenna with Micro-coaxial Feeding Based on Semiconductor Process  
*Jingjian Huang (National University of Defense Technology); Qingzhan Shi (National University of Defense Technology); Xiao-Fa Zhang (National University of Defense Technology); Xi Chen (National University of Defense Technology);*
- 00:00 Design and Characterization of Aperture-coupled SR Array Antenna with Enhanced Radiation Characteristics  
*Yamato Tan (University of Pakuan); Budi Syihabuddin (Telkom University); Muhammad Farhan Maulana (Telkom University); Mochamad Yunus (University of Pakuan); Evyta Wismiana (University of Pakuan); Agustini Rodiah Mahdi (University of Pakuan); Mohammad Ridwan Effendi (Institut Teknologi Bandung); Achmad Munir (Institut Teknologi Bandung);*
- 00:00 A Wideband Millimeter-wave Magnetoelectric Dipole Antenna for 5G Applications  
*Sheng Zeng (Shanghai Jiao Tong University); Chao Wang (East China Normal University); Bin Yuan (Shanghai Jiao Tong University);*
- 00:00 Design of a 1-2 GHz Broadband Double-ridge Waveguide Horn Antenna Array with Beam Symmetrization and Beamwidth Broadening  
*Weida Bai (Northwest Institute of Nuclear Technology); Guodong Gao (Northwest Institute of Nuclear Technology); Zili Jiang (Northwest Institute of Nuclear Technology); Pin Lu (Northwest Institute of Nuclear Technology); Tao Jiang (Northwest Institute of Nuclear Technology);*
- 00:00 Optimization and Performance Analysis of Microwave Pulse Compression Technology Based on Unilateral Overmoded Waveguides  
*Dengpan Chang (Aerospace Information Research Institute, Chinese Academy of Sciences); Dongping Gao (Aerospace Information of Research Institute, Chinese Academy of Sciences); Quanju Shi (Aerospace Information of Research Institute, Chinese Academy of Sciences); Jiawei Wang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Jie Peng (Aerospace Information of Research Institute, Chinese Academy of Sciences); Jinhong Jiang (Aerospace Information of Research Institute, Chinese Academy of Sciences);*
- 00:00 Mechanisms for Tuning Microwave Dielectric Properties in CaWO<sub>4</sub>-based Ceramics via Li/Te Co-doping  
*Hengji He (University of Electronic Science and Technology of China); Dainan Zhang (University of Electronic Science and Technology of China);*
- 00:00 A Digitally Assisted 94.6–105.2 GHz CMOS Power Amplifier with 8-way Coherent Combining and Adaptive Bias Control  
*Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University); Xinran Huang (Guangzhou University); Qinpeng Xu (Guangzhou University); Jiahao Ke (Guangzhou University); Jiaxin Chen (Guangzhou University);*
- 00:00 Development of an Electron Gun with High Compression of an Elliptic Electron Beam for a Sub-THz Traveling-wave Tube Amplifier  
*Nikita Mikhailovich Ryskin (V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS); Roman Antonovich Torgashov (V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS); Dmitry A. Nozhkin (Institute of Radio Engineering and Electronics RAS); Igor A. Navrotsky (Fundamental Research Laboratory, RPE "Almaz"); Dmitry A. Bessonov (Kotelnikov Institute of Radioengineering and Electronics RAS); Anna A. Akst (Saratov State University); Alena A. Rostuntsova (Institute of Radio Engineering and Electronics RAS);*

- 00:00 Instantaneous Turn-on Gyrotron with a Field Emitter and a Pulsed Magnetic System  
*E. Taradaev (Peter the Great St. Petersburg Polytechnic University); G. Sominskii (Peter the Great St. Petersburg Polytechnic University); S. Taradaev (Peter the Great St. Petersburg Polytechnic University); Andrey S. Zuev (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Anton S. Sedov (Federal State Budgetary Scientific Institution "Federal Research Center The Institute of Applied Physics of the Russian Academy of Sciences"); Mikhail Yu. Glyavin (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Radar Detection and Multi-target Recognition with LFM-MTD for UAVs  
*Guo-Yue Zhou (Southwest University of Science and Technology); Jiasheng Chen (Southwest University of Science and Technology); Li-Juan Deng (Southwest University of Science and Technology); Hong-Yu Liu (Southwest University of Science and Technology); Hongqiu Xie (Mianyang Product Quality Supervision and Inspection Institute); Longjian Zhou (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology);*
- 00:00 Research on Localized States and Their Stability near Metasurfaces with High-order Nonlinear Interactions  
*Xin Wang (Air Force Engineering University); Zhihui Zhang (Air Force Engineering University); Xiaoting Mao (Air Force Engineering University);*
- 00:00 Phase Error Correction Method for Tomographic SAR Based on DS-InSAR  
*Teng-Yu Liang (National University of Defense Technology); Dong Feng (National University of Defense Technology); Fengzhuo Huang (National University of Defense Technology); Chongyi Fan (National University of Defense Technology); Xiaotao Huang (National University of Defense Technology);*
- 00:00 Machine Learning-enhanced Classification of High-energy Electromagnetic Transients in Astrophysical Observations  
*Peng Zhang (Tongji University); Renzhou Gui (Tongji University); Shao-Lin Xiong (Institute of High Energy Physics, Chinese Academy of Sciences);*
- 00:00 An Optimal Noise Signal Generation Method for Convolution Modulation  
*Qingzhan Shi (National University of Defense Technology); Zihao Zheng (National University of Defense Technology); Jingjian Huang (National University of Defense Technology); Xiaofa Zhang (National University of Defense Technology);*
- 00:00 The Performance of Terahertz Ice Cloud Airborne Radiometer  
*Wanting Meng (Shanghai Spaceflight Institute of TT&C and Telecommunication); Xiyuan Fan (Shanghai Spaceflight Institute of TT&C and Telecommunication); Xi Ye (Shanghai Spaceflight Institute of TT&C and Telecommunication); Hongxin Xu (Shanghai Spaceflight Institute of TT&C and Telecommunication); Kesong Dong (Shanghai Spaceflight Institute of TT&C and Telecommunication); Xue Li (Shanghai Spaceflight Institute of TT&C and Telecommunication); Jiakai He (Shanghai Spaceflight Institute of TT&C and Telecommunication);*
- 00:00 Limitations of Direct Sampling Method with Nonzero Constant Substitution for Missing Data  
*Youngho Woo (National Institute for Mathematical Sciences); Won-Kwang Park (Kookmin University);*
- 00:00 State-of-charge Estimation for LiFePO<sub>4</sub> Batteries Using a Second-order Equivalent Circuit Model and Extended Kalman Filter  
*Yue Pan (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Rongyan Liu (Southwest University of Science and Technology); Shunqiang Wan (Southwest University of Science and Technology); Jie Deng (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology);*
- 00:00 A Robust Sensorless PMSM Drive Using Strong-tracking EKF and Linear Active Disturbance Rejection Speed Control  
*Hui Zhao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jiayu Li (Southwest University of Science and Technology); Changjie Huang (Southwest University of Science and Technology); Huanfa Yi (Southwest University of Science and Technology); Yangli Liu (Southwest University of Science and Technology); Li Wu (Southwest University of Science and Technology);*
- 00:00 Temperature-compensated SOC Estimation of Lithium-Ion Batteries Based on a Second-order RC Model and EKF  
*Liang Luo (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Qifeng Wu (Southwest University of Science and Technology);*
- 00:00 Design of an Orbital Mobile Nest System for UAVs with Acoustic-based Wireless Charging  
*Qi Liu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Lei Zhao (Southwest University of Science and Technology); Guozheng Zhang (Southwest University of Science and Technology); Chengcheng Wen (Southwest University of Science and Technology); Hao Yang (Southwest University of Science and Technology);*

- 00:00 A Superjunction IGBT with PMOS Assistance and Adaptive Hole Path  
Yuchi Qin (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Yixuanzhe Zhou (Southwest Jiaotong University);
- 00:00 A Novel Design for Testability of I/O Ports in Antifuse FPGAs  
Zhenji Cao (Tongji University); Mei Song Tong (Tongji University); Zhong Yan Xu (The 58th Institute of China Electronics Technology Group Corporation); Gui Lin Zhao (The 58th Institute of China Electronics Technology Group Corporation);
- 00:00 Lightweight Hybrid CNN-Mamba Network for Initial Pressure Reconstruction of Tissue in Microwave Thermoacoustic Imaging  
Fei Tang (Southwest University of Science and Technology); Shuangli Liu (Southwest University of Science and Technology); Xing Shang (Southwest University of Science and Technology);
- 00:00 A 7.9-GHz 0.18- $\mu\text{m}$  CMOS Low-noise Amplifier With Concurrent Impedance and Noise Matching  
Yibo Li (Guangzhou University); Lin Peng (Guangzhou University); Yuming Su (Guangzhou University); Keshan Guo (Guangzhou University); Yufan Xie (Guangzhou University); Yuqian Han (Guangzhou University); Mengding Guo (Guangzhou University);
- 00:00 Prediction of Radar Sea Clutter Based on PatchTST Network  
Chenyi Cai (Beijing Institute of Technology); Changhao Liu (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology);
- 00:00 Research and Design of Frequency Reconfigurable Antenna Based on Electrically Controlled Tuning of Liquid Crystal Dielectric Layer  
Jiayi Chen (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);
- 00:00 Design of a Photonic Crystal Cavity for 1 THz Gyrotrons  
Yu-Heng Qian (Peking University); Xinyin Cao (Peking University); Feng Zhang (Peking University); Jia-Ji Feng (Peking University); Chao-Hai Du (Peking University);
- 00:00 Polarization Insensitive Waveguide Crossing Using 500 nm SOI  
Muhammad Shemyal Nisar (University of Shanghai for Science and Technology (USST)); Naeem Ullah (Zhejiang University); Ata Ur Rahman Khalid (Queen's University Belfast);
- 00:00 Multipath and Doppler Shift Modeling Method Based on Ray Tracing  
Shengzun Wang (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Kaizhen Lv (Southwest University of Science and Technology); Zhen-Yong Du (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yixiang Li (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);
- 00:00 IC with Nano Scale Circuits for Imprinting of Silicon Wafer  
Diyar Bajalan (Technische Universität Wien);
- 00:00 A Novel Quasi-Yagi Filtering Antenna with Multi-mode Bandpass Filter  
Yiheng Chen (Northwestern Polytechnical University); Bokai Weng (Northwestern Polytechnical University); Xueyang Fang (Northwestern Polytechnical University); Yunxi Tao (Northwestern Polytechnical University); Yihao Xia (Northwestern Polytechnical University); Xilong Lu (Northwestern Polytechnical University);
- 00:00 The Design of a Four-channel Ka-band T/R Module for Phased Array System  
Bokai Weng (Northwestern Polytechnical University); Yiheng Chen (Northwestern Polytechnical University); Zhenpeng Li (Northwestern Polytechnical University); Xueyang Fang (Northwestern Polytechnical University); Xilong Lu (Northwestern Polytechnical University);
- 00:00 A Multi-channel Thermocouple Data Acquisition and Monitoring System for Industrial Applications  
Ya Ming Xie (Tongji University); Yi Hao Chen (Tongji University); Yi Fan Guo (Tongji University); Guo Chun Wan (Tongji University);
- 00:00 3D Forward Modeling and Interpretation of Blended-source Transient Electromagnetics  
Jiawen Ma (Chang'an University); Zhipeng Qi (Chang'an University); Junshuo Xing (Chang'an University);
- 00:00 An Electromagnetic Spectrum Map Construction Method Based on Propagation Feature Inversion and Residual Correction  
Zhonghao Huang (Hainan University); Zhenjia Chen (Hainan University); Sineng Lin (Hainan University); Hongpeng Chen (Hainan University);
- 00:00 Design of a Decentralized Pulsating Array Digital Beamforming for Radar Applications  
Liu Yang (Nanjing Marine Radar Institute);

- 00:00 EMI Shielding Effectiveness Evaluation of Twisted-pair Multi-core Cables  
*Cheng Liu (Southwest University of Science and Technology); Chungying Zhao (Chengdu Tianao Technology Development Co., Ltd); Li-Juan Deng (Southwest University of Science and Technology); Jia-Hao Wang (Southwest University of Science and Technology); Jun Zhou (Sichuan Shuzhi Sensor Inspection and Testing Co., Ltd); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 A Broadband Planar Meander-line EBG Structure for Suppressing Simultaneous Switching Noise  
*Hong-Yu Liu (Southwest University of Science and Technology); Jiasheng Chen (Southwest University of Science and Technology); Li-Juan Deng (Southwest University of Science and Technology); Guo-Yue Zhou (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology);*
- 00:00 Training-sequence-aided Pilot-branch-free Phase Recovery for Gaussian-modulated Local-Local-Oscillator Continuous-Variable Quantum Key Distribution  
*Xin Jin (Institute of Southwestern Communication); Yang Li (Institute of Southwestern Communication); Yan Pan (Institute of Southwestern Communication); Jinlu Liu (Institute of Southwestern Communication); Wei Huang (Institute of Southwestern Communication); Bingjie Xu (Institute of Southwestern Communication);*
- 00:00 CoMetaX: 4-in-1 Co-focal Multi-band Metasystem  
*Qian Jin (Soochow University); Azhar Javed Satti (Information Technology University of the Punjab); Isma Javed (Information Technology University of the Punjab); Hanjun Cho (Sungkyunkwan University); Muhammad Zubair (University of Leicester); Muhammad Qasim Mehmood (Information Technology University (ITU)); Lei Gao (Suzhou City University); Inki Kim (Sungkyunkwan University (SKKU)); Dongliang Gao (Soochow University);*
- 00:00 Numerical-aperture Optimization for a Two-stage Metasurface Micro-area Imaging and Spectral Measurement Path  
*Wei Bin Qiu (China Jiliang University); H. X. Liao (China Jiliang University); Z. L. Chen (China Jiliang University); Chunlian Zhan (China Jiliang University); Han Gao (China Jiliang University);*
- 00:00 Multi-layer Phase-screen SSFM Modeling of Laser Phase Jitter in Plasma Sheaths with Random Electron-density Fluctuations  
*Ying Zhang (Xi'an University of Technology); Junbo Hou (Xi'an University of Technology); Mingjun Wang (Xi'an University of Technology);*
- 00:00 High-performance Quantum Frequency Conversion from Ultraviolet to Telecom Band  
*Yi Yang (University of Science and Technology of China); Bin Wang (University of Science and Technology of China); Ji-Chao Lin (University of Science and Technology of China); Yang Gao (University of Science and Technology of China); Xin Li (University of Science and Technology of China); Jiu-Peng Chen (University of Science and Technology of China); Lei Hou (University of Science and Technology of China); Xiuping Xie (University of Science and Technology of China); Ming-Yang Zheng (University of Science and Technology of China); Qiang Zhang (University of Science and Technology of China);*
- 00:00 Investigation of Helicity Density in a Tightly Focused Hybrid Polarized Beams  
*Vladislav Dmitrievich Zaitsev (Samara National Research University); Sergey S. Stafeev (NRC "Kurchatov Institute"); Elena Sergeevna Kozlova (Samara National Research University & NRC "Kurchatov Institute"); Victor V. Kotlyar (NRC "Kurchatov Institute");*
- 00:00 Dual-wavelength Solar-blind Photodetectors Based on  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>/GeO<sub>2</sub> Heterostructures  
*Ziyu Li (Ningbo University); Dongdong Meng (Beijing MIG Semiconductor Co., Ltd.); Zhengwei Chen (Beijing University of Posts and Telecommunications); Xu Wang (Ningbo University);*
- 00:00 Research on Improvement of Temperature Control System for Monitoring Device Based on Intelligent Fuzzy Control Algorithm  
*Bihong Zhan (China Ship Development and Design Center);*
- 00:00 Investigation of Two-stage Degradation Kinetics in GaN-based Laser Diodes  
*Haoyu Gao (Tongji University); Yu He (Tongji University); Tianqian Li (Tongji University); Yongchen Miao (Tongji University); Jingxian Liang (Tongji University); Bochen Wu (Tongji University); Pengyan Wen (Tongji University);*
- 00:00 Machine-learning-guided Design of Si-based Schottky Photodiodes with Optically Tailorable Frequency  
*Tiantian Shi (Nanjing University); Yuhao Zhai (Nanjing University); Wenbin Zhou (Nanjing University); Zerui Jin (Nanjing University); Tingyang Qin (Nanjing University);*
- 00:00 Beyond the Gain-narrowing Limit: 100-fs Pulse Generation via Gain-managed Nonlinear Amplification in Yb-doped Fiber  
*Jeong Seop Lee (Korea Institute of Industrial Technology); Inchul Park (Hanyang University ERICA); Eunkyoung Park (Hanyang University ERICA); Jiwon Kim (Hanyang University); Hoon Jeong (Korea Institute of Industrial Technology);*
- 00:00 High-gain Compact Waveguide Slot Array Using Dielectric End-fire Structure for X-band Radar  
*Young-Bae Jung (Hanbat National University);*

- 00:00 U-bridge Inclusion on Super-wideband Spearhead-shaped Monopole Antenna for Sub-GHz Spectrum Coverage  
*Agus Dwi Prasetyo (Institut Teknologi Bandung); Dhoni Putra Setiawan (Telkom University); Zulfi (Institut Teknologi Bandung); Bambang Setia Nugroho (Telkom University); Indar Surahmat (Universitas Muhammadiyah Yogyakarta); Hasbi Nur Prasetyo Wisudawan (Islamic University of Indonesia); Chairunnisa (Institut Teknologi Bandung); Achmad Munir (Institut Teknologi Bandung);*
- 00:00 An Ultra-wideband, Wide-angle Scanning Antenna Array with Large Element Spacing Using Metal-loaded Tightly Coupled Elements  
*Ling-Lu Chen (No. 36 Research Institute of China Electronics Technology Group Corporation); Lei Chang (No. 36 Research Institute of China Electronics Technology Group Corporation); Hui Wang (No. 36 Research Institute of China Electronics Technology Group Corporation);*
- 00:00 Adaptive Weight-free Optimization of a Dual-band Multi-modal OAM Antenna Array  
*Haoyang Li (Nanjing University of Science and Technology); Jun Hu (Nanjing University of Science and Technology); Yu-Peng Yuan (Nanjing University of Science and Technology); Yue-Fei Hu (Nanjing University of Science and Technology); Siwen Zhang (Nanjing University of Science and Technology); Yi Chen (Nanjing University of Science and Technology); Fujing Tan (Nanjing University of Science and Technology);*
- 00:00 A Dual-band Bandpass Filter Based on CSRR-loaded Quarter-mode Substrate Integrated Waveguide  
*Jie Zheng (Southwest University of Science and Technology); Zuzue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Xiang Wang (Southwest University of Science and Technology); Mingjie Liu (Southwest University of Science and Technology);*
- 00:00 Characteristics of Wave Passing Sub-mesoscale Eddy Observed by Gaofen-3 Image  
*Jiale Chen (Shanghai Ocean University); Yuyi Hu (Shanghai Ocean University);*
- 00:00 Observing Flooded Areas by GEOSAR  
*A. Campos (Sapienza University of Rome); G. Tozzi (Sapienza University of Rome); Ferdinando Nunziata (Sapienza University of Rome); Nazzareno Pierdicca (Sapienza University of Rome); G. Boni (Sapienza University of Rome); M. Lagasio (CIMA Research Foundation); A. Monti Guarnieri (Politecnico di Milano); A. Parodi (CIMA Research Foundation); Luca Pulvirenti (CIMA Research Foundation);*
- 00:00 Climate Change Accelerates the Evolution of Reorganized River-lake Systems on the Tibetan Plateau  
*Xinya Kuang (Aerospace Information Research Institute, Chinese Academy of Sciences); Shanlong Lu (Aerospace Information Research Institute, Chinese Academy of Sciences); Liping Zhu (University of Chinese Academy of Sciences); Jiahua Wei (Qinghai University); Yuxiang Cui (Qinghai Provincial Hydrological and Water Resources Survey Bureau); Alice C. Hughes (University of Hong Kong); Guoqiang Shi (The Hong Kong Polytechnic University); Xidong Chen (The University of Hong Kong); Xinru Li (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 An Algorithm for Retrieving Range Direction Sea Surface Currents Based on Sentinel-1 SAR  
*Yuhang Zhou (National University of Defense Technology); Xianbin Zhao (National University of Defense Technology); Weihua Ai (National University of Defense Technology);*
- 00:00 Ocean Perspective Detection Based on Multi-sensor Coordinated Aerial Remote Sensing  
*Xiaofeng Yang (Nanjing University);*
- 00:00 High-resolution Dynamic Surface Water Mapping in the Hindu Kush Himalaya Region by Integrating SDGSAT-1 and Sentinel-2 Observations  
*Xidong Chen (The University of Hong Kong);*
- 00:00 Simulation of Airborne Observation Scenarios for the Terahertz Ice Cloud Airborne Radiometer (TICAR) Using the ARTS Model  
*Ruanyu Zhang (Shanghai Spaceflight Institute of TT&C and Telecommunication); Pingkai Wang (Shanghai Spaceflight Institute of TT&C and Telecommunication); Fangli Dou (National Satellite Meteorological Center (National Centre for Space Weather)); Xiuqing Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Hao Wang (Shanghai Spaceflight Institute of TT&C and Telecommunication);*

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### Session 2P1

### Remote Sensing of the Earth: From Models to Applications

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Wednesday PM, July 29, 2026

Room 1 - CR 1

Organized by Ferdinando Nunziata, Weizeng Shao

Chaired by Ferdinando Nunziata

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- 00:00 Assimilation of Multi-source Satellite Wave Observations into the COAWST Model during Typhoons Using Deep Learning  
*Ru Yao (Shanghai Ocean University); Yuyi Hu (Shanghai Ocean University); Weizeng Shao (Shanghai Ocean University); Xingwei Jiang (National Satellite Ocean Application Service, Ministry of Natural Resources);*

- 00:00 Synergistic Monitoring of Blue Carbon Ecosystem Dynamics via Fusion of SAR and Optical Imagery: Integrated Mapping of Mangroves, Salt Marshes, and Seagrass Meadows  
*Di Dong (Remote Sensing Technology Application Center of South China Sea, MNR); Huamei Huang (Remote Sensing Technology Application Center of South China Sea, MNR); Qing Gao (Remote Sensing Technology Application Center of South China Sea, MNR);*
- 00:00 Mitigation of Quasi-periodic Spectral Ripple in Microwave Hyperspectral Radiometers: 53–55 GHz O<sub>2</sub> Band Demonstrations  
*Chao Zhang (National Space Science Center, Chinese Academy of Sciences); Jieying He (National Space Science Center, Chinese Academy of Sciences); Xinbiao Wang (National Space Science Center, Chinese Academy of Sciences); Shengwei Zhang (National Space Science Center, Chinese Academy of Sciences); Yu Zhang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Research on Spaceborne W-band Doppler Radar Model for Detecting Atmospheric Wind Fields within Clouds  
*Zijin Zhang (National Space Science Center, Chinese Academy of Sciences); Han Ye (National Space Science Center, Chinese Academy of Sciences); Xiaolong Dong (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Models and Soil Moisture Retrieval through GNSS Reflectometry: The ESA HydroGNSS Satellite Mission  
*Nazzareno Pierdicca (Sapienza University of Rome); H. Izadgoshasb (Sapienza University of Rome); F. Cordari (Sapienza University of Rome); L. Guerriero (Università di Roma Tor Vergata); A. Khalil Zadeh (Università di Roma Tor Vergata); E. Santi (Institute of Applied Physics); S. Pettinato (Institute of Applied Physics); E. Cardellach (Institut d'Estudis Espacials de Catalunya (IEEC)); M. Unwin (Surrey Satellite Technology Ltd (SSTL));*
- 00:00 On the Quality of Tianmu-1 GNSS-R Wind Observations and Their Impacts on Tropical Cyclone Forecasts  
*Weicheng Ni (National University of Defense Technology); Yanlai Zhao (National University of Defense Technology);*
- 00:00 Climate Impacts on Photovoltaic Performance and Implications for the Global Solar Energy Transition  
*Rui Song (University of Oxford); Feng Yin (University College London); Jan-Peter Muller (University College London); Adam C. Povey (University of Leicester); Basudev Swain (University of Oxford); Chenchen Huang (University of Bath); Roy G. Grainger (University of Oxford);*
- 00:00 Structural Feature Fusion via Adaptive Re-parameterization: A Zero-cost Framework for Oriented Object Detection in Remote Sensing  
*Zhiqing Li (China University of Geosciences (Wuhan)); Zeqiang Chen (China University of Geosciences (Wuhan)); Lai Chen (China University of Geosciences (Wuhan)); Shuang Yang (China University of Geosciences (Wuhan)); Fangzhou Li (China University of Geosciences (Wuhan)); Fanggang Li (Hohai University); Tianyu Xu (Lanzhou University); Jiacheng Shi (Nanjing Agricultural University); Nengcheng Chen (China University of Geosciences (Wuhan));*
- 00:00 A Physics-modulated U-Net Method for Two-dimensional Ocean Wave Spectra Retrieval from Sentinel-1 SAR Cross-spectra  
*Jiahua Jia (China University of Petroleum (East China)); Yong Wan (China University of Petroleum);*

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**Session 2P2**
**Electromagnetics for Magnetic Resonance Imaging**


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**Wednesday PM, July 29, 2026**
**Room 2 - CR 2**

Organized by Stanislav B. Glybovski, Xiaotong Zhang  
Chaired by Anna Aleksandrovna Hurshkainen, Georgiy A. Solomakha

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- 00:00 A Comparative Study of SDR Solutions for Low-field MRI Console Application  
*Mikhail Murzin (ITMO University); Andrei Belov (ITMO University); A. Nasonov (ITMO University); V. Vinokurov (ITMO University); A. Dyatlovich (ITMO University); V. Severikov (ITMO University); Anna Aleksandrovna Hurshkainen (ITMO University);*
- 00:00 Fast High-resolution Dental MRI Using a Wireless Intraoral Coil Array Combined with Deep Learning Methods  
*Qiaoyan Chen (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Enhua Xiao (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Shahzeb Hayat (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Peiyu He (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Nan Li (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Zhiguang Mo (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Wenhao Liao (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Feng Du (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Zhuoxu Cui (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences); Ye Li (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences);*

- 00:00 Electromagnetic Design of MRI Hardware  
Invited  
*Yaohui Wang (Institute of Electrical Engineering, Chinese Academy of Sciences); Haoran Chen (Huazhong University of Science and Technology); Wenchen Wang (The University of Queensland); Benzhe Zhou (Institute of Electrical Engineering, Chinese Academy of Sciences); Guyue Zhou (Huazhong University of Science and Technology); Haotian Miao (Huazhong University of Science and Technology); Wenhui Yang (Institute of Electrical Engineering, Chinese Academy of Sciences); Hao He (Huazhong University of Science and Technology); Yiqing Yin (Institute of Electrical Engineering, Chinese Academy of Sciences); Feng Liu (The University of Queensland);*
- 00:00 Water-content-guided Physics-informed Neural Network for Robust Magnetic Resonance Electrical Properties Tomography  
*Jijun Han (Anhui Medical University);*
- 00:00 Stream-function-based Design of a Region-specific Active Shim Coil for the Prefrontal Cortex in 5T MRI  
*Ziyu Liu (ShanghaiTech University); Yu Cheng (ShanghaiTech University); Yihan Yang (ShanghaiTech University); Zhihua Ren (ShanghaiTech University);*
- 00:00 Glide-symmetric Square-patch Metamaterials for Ultra-high-field MRI: Theory and Design  
*Jim A. Enriquez (ITMO University); Evgeniy Koreshin (ITMO University); Juan P. Del Risco (Universidad Militar Nueva Granada); Pavel A. Belov (ITMO University); Juan Domingo Baena Doello (Universidad Nacional de Colombia);*
- 00:00 Magnetic Resonance Electrical Properties Tomography: Current Limits and Future Prospects  
Invited  
*Donghyun Kim (Yonsei University);*
- 00:00 Coaxial Dipole Transceiver Arrays for MRI of Human Brain and C-spine at 9.4T  
Invited  
*Georgiy Solomakha (MPI for Biological Cybernetics);*
- 00:00 Accessible T2 Map Reconstruction Using Pulseseq Sequences and KomaMRI-simulated Dictionaries  
*Zilya Badrieva (ITMO University); Ekaterina Brui (ITMO University);*
- 00:00 Self-supervised Physics-guided Generation of Digital MRI Phantoms  
*Kseniya Belousova (ITMO University); Zilya Badrieva (ITMO University); Walid Al-Haidri (ITMO University); Ekaterina A. Brui (ITMO University);*
- 00:00 A Low-cost Solution for Ultra-low Field MRI Magnetometry Applications  
*Anna Dyatlovich (ITMO University); Vasiliy Severikov (ITMO University); Aleksei Nasonov (ITMO University); Anna Aleksandrovna Hurshkainen (ITMO University);*
- 00:00 An Open Multi-channel RF-coil Based on a Sectorized Birdcage Approach for 3-Tesla MRI  
Invited  
*Andreas Rennings (University of Duisburg-Essen); Ran Zhang (University of Duisburg-Essen); Yan Zhang (University of Duisburg-Essen); Zhenming Tian (University of Duisburg-Essen); Ramón De la Rosa Steinz (Universidad de Valladolid); Daniel Erni (University of Duisburg-Essen, Campus Duisburg);*
- 00:00 A Method for Optimization of a Cylindrical Metasurface for Traveling-wave MRI Applications  
*Kristina I. Popova (ITMO University); Georgiy A. Solomakha (Max Planck Institute for Biological Cybernetics); Zicheng Wen (Xidian University); Mikhail M. Popov (ITMO University); Xiaotong Zhang (Zhejiang University); Yang Gao (Xidian University); Stanislav B. Glybowski (ITMO University);*
- 00:00 Load-insensitive Wireless RF Coil for Dedicated Breast MRI  
*Pavel M. Tikhonov (ITMO University); Alexander D. Fedotov (ITMO University); Anna Aleksandrovna Hurshkainen (ITMO University);*
- 00:00 Active Electromagnetic Interference Sensing and Elimination for Shielding-free MRI  
Keynote  
*Ed Xuekui Wu (The University of Hong Kong); Yujiao Zhao (The University of Hong Kong);*
- 00:00 Optimizing Electromagnetic Coupling between a Metamaterial-inspired Resonator and a Dual-transmit Birdcage Coil in 3T MRI  
*Leila Sharipova (ITMO University); Dmitrii Tikhonenko (Aix-Marseille Université, CNRS); Christophe Vilmen (Aix-Marseille Université, CNRS); David Bendahan (Aix-Marseille Université, CNRS); Stefan Enoch (Institut Fresnel); Redha Abdeddaim (ESPCI Paris Tech.); Alena V. Shchelokova (ITMO University); Marc Dubois (Institut Fresnel);*
- 00:00 Design and Experimental Validation of Gradient Power Amplifier for Low-field MRI  
*Aleksandra Matnina (ITMO University); Mikhail Murzin (ITMO University); Aleksei Nasonov (ITMO University); Alexander D. Fedotov (ITMO University); Anna Dyatlovich (ITMO University); Aleksei Gurianov (ITMO University); Pavel Zolov (ITMO University); Aleksandr Mamatov (ITMO University); Nikita Smirnov (ITMO University); Nikita Babich (ITMO University); Ekaterina A. Brui (ITMO University); Anna Aleksandrovna Hurshkainen (ITMO University); Carlos Cabal Mirabal (Cuban Neuroscience Center);*

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**Session 2P3a**  
**On-chip Spectrometer**

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**Wednesday PM, July 29, 2026**

**Room 3 - CR 3**

Organized by Lei Zhang, Qin Chen

Chaired by Lei Zhang, Qin Chen

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- 00:00 Ultra-compact, Low Crosstalk Silicon Photonic Devices  
Invited  
*Ciyuan Qiu (Shanghai Jiao Tong University);*
- 00:00 NIR Single-pixel On-chip Spectroscopy Based on Opto-  
Invited mechatronic Integration  
*Yuyao Lu (Jinan University); Huijun Yu (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Long Wen (Jinan University); Wenjiang Shen (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Qin Chen (Jinan University);*
- 00:00 Mid-infrared Silicon Photonic Devices for Spectroscopic  
Invited Sensing  
*Zunyue Zhang (Tianjin University); Zhijie Wei (State Key Laboratory of Precision Measuring Technology and Instruments); Rongxiang Guo (Tianjin University); Shujiao Zhang (State Key Laboratory of Precision Measuring Technology and Instruments); Tiegeng Liu (Tianjin University); Zhenzhou Cheng (Tianjin University);*
- 00:00 Resolution and Robustness Bounds for Reconstructive  
Invited Spectrometers  
*Changyan Zhu (Nanyang Technological University); Hsuan Lo (Nanyang Technological University); Jianbo Yu (Nanyang Technological University); Qi Jie Wang (Nanyang Technological University); Yidong Chong (Nanyang Technological University);*
- 00:00 Computational Microspectrometer Based on Amorphous  
Invited Silicon Metasurfaces  
*Shaonan Zheng (Shanghai University);*
- 00:00 In Situ Spectral Reconstruction Based on a Memristor  
Invited Chip for Energy-efficient Computational Spectrometry  
*Han Zhao (Tsinghua University); Lei Wang (Shanghai Jiao Tong University); Yanze Zhou (Tsinghua University); Jianshi Tang (Tsinghua University); Weiwei Cai (Shanghai Jiao Tong University); Huaqiang Wu (Tsinghua University);*
- 00:00 High-performance Resonator-based On-chip Spectrome-  
Invited ter  
*Boshu Sun (Westlake University); Kangjian Bao (Westlake University); Qingyan Deng (Westlake University); Xu Yang (Westlake University); Zequn Chen (Westlake University); Lan Li (Westlake University);*
- 00:00 Silicon Photonics for Spectral Sampling and Reconstruc-  
Invited tion  
*Ang Li (Nanjing University of Aeronautics and Astronautics);*

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**Session 2P3b**  
**Biomedical Photonics**

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**Wednesday PM, July 29, 2026**

**Room 3 - CR 3**

Organized by Ming Lei, Peng Gao

Chaired by Peng Gao

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- 00:00 Quantitative Phase Microscopy and Phase Correlation  
Spectroscopy for Biology  
*Peng Gao (Xidian University);*
- 00:00 High Throughput 3D Imaging with Light-sheet Fluorescent  
Microscopy  
*Bo Jiang (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences); Yifan Zhang (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences); Hui Li (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences);*
- 00:00 Nearest Paired Cloud: Resolution-matched Fast Drift  
Correction for Single-molecule Localization Microscopy  
*Leiting Pan (Nankai University);*
- 00:00 Biogenesis of Migrasome  
*Yuwei Huang (Xi'an Jiaotong University);*
- 00:00 Studying Neural Basics during Naturalistic Behaviours  
Using Two-photon Microscopy  
*Showwen Ma (Max Planck Institute for Biological Intelligence); Falk Dittrich (Max Planck Institute for Biological Intelligence); Manfred Gahr (Max Planck Institute for Biological Intelligence);*
- 00:00 Dissecting Thermodynamic Details of Mitochondrial  
Membrane and Nucleoid assembly  
*Yifan Ge (Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences); X. Zhao (University of Nottingham Ningbo China);*
- 00:00 Multispectral Quantitative Optoacoustic Imaging for  
Cancer Research  
*Jiao Li (Tianjin University);*
- 00:00 Light-matter Interactions at Interfaces: From Radiation  
Control to Nanoscale Bio-photonics  
*Xiaolan Zhong (Beihang University);*
- 00:00 Circular Scanning Fluorescence Correlation Spectroscopy (CS-FCS) for Probing Molecular Dynamics of Sparse or Heterogeneous Samples  
*Lan Yu (Xidian University); Xiaoman Dong (Xidian University); Weihui Zeng (The Second Affiliated Hospital of Xi'an Jiaotong University); Cuiping Yao (Xi'an Jiaotong University); Peng Gao (Xidian University);*
- 00:00 Selective-plane Structured-illumination Microscopy Using Multifocal Fluorescence Activation  
*Xing Zhou (The University of Osaka); Kenta Temma (The University of Osaka); Ryohei Ozaki-Noma (The University of Osaka); Heqi Xi (The University of Osaka); Takeharu Nagai (The University of Osaka); Katsumasa Fujita (The University of Osaka);*

**Session 2P4a****Electromagnetic Forces, from Fundamentals to Applications 2****Wednesday PM, July 29, 2026****Room 4 - CR 8**Organized by Olivier J. F. Martin, Xiaohao Xu,  
Shuailong Zhang

Chaired by Olivier J. F. Martin, Xiaohao Xu

- 00:00 Optical Tweezer-sectioning Microscopy  
*Xing Li (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Xiaohao Xu (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Baoli Yao (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*
- 00:00 Trapping and Rotating of Microparticles Using Freely Shaped Digital Lenses  
*Yansheng Liang (Xi'an Jiaotong University); Tianyu Zhao (Xi'an Jiaotong University); Shaowei Wang (Xi'an Jiaotong University); Ming Lei (Xi'an Jiaotong University);*
- 00:00 Orbital Recoil Torque via Optical Vortex Stimulated Emission  
*Mamoru Tamura (Kwansei Gakuin University); Y. Umekawa (The University of Osaka); T. Horai (The University of Osaka); M. Ashida (The University of Osaka); H. Ishihara (The University of Osaka);*
- 00:00 Optomechanical Metamaterials and Optobots  
*Muamer Kadic (University Bourgogne Franche-Comte);*
- 00:00 Optically-driven Nano-motor Designed by Generative Artificial Intelligence  
*Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 Field-controlled Ion Transport in Ionic Liquid Films on Charged Electrodes  
*Yufeng Cheng (Beihang University); Alberto T. Perez (Universidad de Sevilla); Weizong Wang (Beihang University); Yuankai Yang (Beihang University); Antonio Ramos (Universidad de Sevilla);*
- 00:00 Nanodrone Driven by Symmetry-selective Light Recoiling  
*Jack Ng (Southern University of Science and Technology);*
- 00:00 Optothermal Ice-Water Interface Management for Cross-scale Enrichment and Molecular Sensing  
*Jiajie Chen (Shenzhen University); Yonghong Shao (Shenzhen University); Junle Qu (Shenzhen University);*

**Session 2P4b****Numerical Methods in Analysis and Design of Metasurfaces****Wednesday PM, July 29, 2026****Room 4 - CR 8**Organized by Jun Wei Wu, Mengmeng Li  
Chaired by Jun Wei Wu, Mengmeng Li

- 00:00 Integral Equations for the Electromagnetic Modelling of Invited Geometrically Complex Multi-scale Problems  
*Francesca Vipiana (Politecnico di Torino);*
- 00:00 Covert DOA Estimation with Space-time Modulated Metasurface for LFM Radar Signals  
*Jianyu Zhou (Nanjing University of Science and Technology); Mengmeng Li (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Electromagnetic Sensing and Manipulation Based on Information Metasurface  
*Junyan Dai (Southeast University);*
- 00:00 Analyzing Periodic Arrays Mounted on Platform Using Fast Model Order Reduction Method  
*Hanru Shao (University of Electronic Science and Technology of China (UESTC));*
- 00:00 A Parallel Algorithm for High-order Bodies of Revolution Using Equivalence Principle Algorithm  
*Hongxi Wu (Nanjing University of Science and Technology); Jinwei Zhang (Nanjing University of Science and Technology); Jihong Gu (Nanjing University of Science and Technology); Mengmeng Li (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Distributed Space-time-coding Metasurfaces for Positional Information Modulation  
*Hui Xu (Southeast University); Junwei Wu (Southeast University); Tie Jun Cui (Southeast University);*
- 00:00 Compact Three-stage Equal-split Ultra-wideband Differential Power Divider Based on Polyimide Supported Bridges  
*Haixiang Duan (Nanjing University of Science and Technology); Shuaishuai Li (Nanjing University of Science and Technology); Mengmeng Li (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Spatial DoF Identification via Dual-sided Hadamard Projections with Programmable Metasurfaces  
*Xuan Jing Li (Southeast University); Junwei Wu (Southeast University);*
- 00:00 Array Optimization of Metasurface Antennas  
*Junwei Wu (Southeast University);*

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**Session 2P5a**

**Theory and Methods for Millimeter-wave Fixed-frequency Beam-scanning Leaky-wave Antennas Driven by Guided Waves**

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**Wednesday PM, July 29, 2026**

**Room 5 - CR 9**

Organized by Chang Ding, Shanzhe Wang

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- 00:00 A Miniaturized and No-PRS RC Antenna with Sidelobe Suppression  
*Deke Huang (Shenzhen University); Siyao Xu (Shenzhen University); Mingxuan Liang (Shenzhen University); Qingyi Guo (City University of Hong Kong);*
- 00:00 Metasurfaces Intelligent Control Architectures Research  
*Ruichao Zhu (Air Force Engineering University);*
- 00:00 A Novel CP-LP Reconfigurable Antenna Using Phase Changing Material  
*Siyao Xu (Shenzhen University); Runcong Lv (Shenzhen University); Qingyi Guo (Shenzhen University);*
- 00:00 Design of a Single-layer High-efficiency Ultra-wideband Polarization-converting Metasurface  
*Qilin Ren (Shenyang Aerospace University); Shuang Ma (Shenyang Aerospace University); Jiahao Liu (Shenyang Aerospace University);*
- 00:00 Low-profile Ku-band Dual-polarized Phased Array Antenna with Wide-angle Scanning Capability  
*Shuai Li (National University of Defense Technology); Weiwei Wu (National University of Defense Technology); Shaozhi Wang (National University of Defense Technology); Jingjian Huang (National University of Defense Technology); Shizian Li (National University of Defense Technology);*
- 00:00 A High-precision DOA Estimation Method Based on 2-bit Metasurfaces  
*Lin Qin (National University of Defense Technology); Shaozhi Wang (National University of Defense Technology); Weiwei Wu (National University of Defense Technology); Shuai Li (National University of Defense Technology); Kaibo Cui (National University of Defense Technology);*
- 00:00 Design of a High-temperature-resistant RCS Reduction Metamaterial with a Transmission Window  
*Yudeng Wang (Air Force Engineering University); Xinmin Fu (Air Force Engineering University); Yong Sun (Air Force Engineering University);*
- 00:00 Group Theory in Vortex Light-matter Interactions  
*Jie Yang (Airforce Engineering University); Jiafu Wang (Air Force Engineering University); Xuezhi Zheng (Nanjing University of Aeronautics and Astronautics);*

- 00:00 High-gain Wide-angle Frequency Scanning Antenna Based on SSPP  
*Yunqi Zhang (Xi'an University of Posts & Telecommunications); Jichao Yang (Xi'an University of Posts and Telecommunications); Kechen Xi (Xi'an University of Posts and Telecommunications); Jianxiao Wang (National Key Laboratory of Science and Technology on Space Microwave, China Academy of Space Technology); Rong Zou (Xidian University); Shanzhe Wang (National University of Defense Technology);*

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**Session 2P5b**

**RF Circuit & Wireless Systems Based on Smart Designs**

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**Wednesday PM, July 29, 2026**

**Room 5 - CR 9**

Organized by Zhinong Ying, Hui Liu

Chaired by Hui Liu

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- 00:00 Intelligent Voice Terminal Edge AI Enhancement and Wireless Transmission System Based on the Speech Enhancement Model  
*Yongtu Hao (Guangdong Technical Normal University); Haijian Zhao (Guangdong Polytechnical Normal University); Yanfeng Liang (Guangdong Polytechnical Normal University); Yuejun Tan (Guangdong Technical Normal University); Hui Liu (Guangdong Polytechnical Normal University);*
- 00:00 Design of N79 Band FBAR Resonator Based on Deep Neural Network Surrogate Model  
*Yanfeng Liang (Guangdong Polytechnical Normal University); Shangran Wang (Guangdong Polytechnical Normal University); Chen Zhao (Guangdong Polytechnical Normal University); Haijian Zhao (Guangdong Polytechnical Normal University); Yongtu Hao (Guangdong Technical Normal University); Hui Liu (Guangdong Polytechnical Normal University);*
- 00:00 A 65 nm SOI CMOS SPDT RF Switch with AI Surrogate Model for 5G NR Front-end Communications  
*Haijian Zhao (Guangdong Polytechnical Normal University); Yanfeng Liang (Guangdong Polytechnical Normal University); Yongtu Hao (Guangdong Technical Normal University); Hui Liu (Guangdong Polytechnical Normal University);*
- 00:00 433 MHz Antenna Design Based on Fully Connected Neural Network Surrogate Model  
*Zeyu Hu (Guangdong Polytechnical Normal University); Zhenhuan Zhang (Guangdong Polytechnical Normal University); Hui Liu (Guangdong Polytechnical Normal University);*

- 00:00 Design of an Intelligent Speech Enhancement and Infrared Wireless Transmission System for Conference Scenarios  
Yongtu Hao (Guangdong Technical Normal University); Hui Liu (Guangdong Polytechnical Normal University); Peng Wang (University of Electronic Science and Technology of China); Zuozhen Wang (University of Electronic Science and Technology of China); Peng Mei (Huazhong University of Science and Technology);
- 00:00 Multi-objective Optimization of 915 MHz Dual-chip UHF RFID Tag Antenna Using Fully Connected Neural Network  
Junxi Tang (Guangdong Polytechnical Normal University); Hui Liu (Guangdong Polytechnical Normal University); Zhinong Ying (University of Electronic Science and Technology of China); Peng Mei (Huazhong University of Science and Technology); Linlong Wu (University of Electronic Science and Technology of China);
- 00:00 A Surrogate-assisted Design Scheme for Magnetic Cusp Guns Based on Pareto-optimal Transverse Velocity Distributions  
Runfeng Tang (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Xianfei Chen (Huazhong University of Science and Technology);
- 00:00 Optical Semiconductor Switch for Generating Superpowerful THz Pulses  
Sergey V. Morozov (Institute for Physics of Microstructures of RAS); Vladimir V. Utochkin (Institute for Physics of Microstructures RAS); D. V. Shengurov (Institute for Physics of Microstructures of RAS); E. E. Morozova (Institute for Physics of Microstructures of RAS); P. V. Volkov (Institute for Physics of Microstructures RAS); D. A. Semikov (Institute for Physics of Microstructures RAS); A. N. Yablonskiy (Institute for Physics of Microstructures RAS); V. E. Zakharov (Institute for Physics of Microstructures RAS); A. E. Pestov (Institute for Physics of Microstructures of the Russian Academy of Sciences); M. S. Mikhailenko (Institute for Physics of Microstructures RAS); A. A. Akhsakhalyan (Institute for Physics of Microstructures RAS); Alexey V. Palitsin (Institute of Applied Physics, Russian Academy of Sciences); Mikhail Yu. Glyavin (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Grigory G. Denisov (Institute of Applied Physics, Russian Academy of Sciences);

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**Session 2P6a**

**High Power Microwaves: Sources and Applications 3**

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**Wednesday PM, July 29, 2026**

**Room 6 - CR 10**

Organized by Mikhail Yu. Glyavin, Nikolai Yu. Peskov, Wenjie Fu

Chaired by Nikolai Yu. Peskov, Wenjie Fu

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- 00:00 Versatile Quasi-optical System featuring Paired Off-axis Ellipsoidal Mirrors for High Efficiency Long-distance THz Propagation  
Zengwen Wang (Huazhong University of Science and Technology); Shaozhe Zhang (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Xianfei Chen (Huazhong University of Science and Technology); Yuting Lu (Huazhong University of Science and Technology); Xiaotao Han (Huazhong University of Science and Technology);
- 00:00 Dual Sheet Beam Traveling-wave Tube with a Metamaterial-inspired Slow Wave Structure: PIC Simulation and Cold Test Study  
Alena A. Rostuntsova (Institute of Radio Engineering and Electronics RAS); Roman Antonovich Torgashov (V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS); Dmitry A. Nozhkin (Institute of Radio Engineering and Electronics RAS); Dmitry A. Bessonov (Kotel'nikov Institute of Radioengineering and Electronics RAS); Valeriy V. Emelyanov (Kotel'nikov Institute of Radioengineering and Electronics RAS); Igor A. Navrotskiy (Fundamental Research Laboratory, RPE "Almaz"); Nikita Mikhailovich Ryskin (V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS);
- 00:00 Excitation of High Spatial Harmonics in Cherenkov Surface Wave Oscillators of Planar Configuration  
Vladislav Yur'evich Zaslavsky (Institute of Applied Physics, Russian Academy of Sciences); Ilya V. Zheleznov (Institute of Applied Physics, RAS); Anastasiya Andreevna Savilova (Institute of Applied Physics, Russian Academy of Sciences); Alexander Sergeevich Sergeev (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Alexey V. Palitsin (Institute of Applied Physics, Russian Academy of Sciences); Yu. V. Rodin (Institute of Applied Physics, Russian Academy of Sciences); Nikolai Yu. Peskov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);

- 00:00 Generation of Megawatt Pulses of Narrow-band mm-radiation in a Planar Cherenkov Maser Driven by a Sheet High-current Relativistic Electron Beam  
*Evgeny S. Sandalov (Budker Institute of Nuclear Physics RAS); Stanislav L. Sinitsky (Budker Institute of Nuclear Physics Russian Academy of Sciences); Andrey V. Arzhannikov (Budker Institute of Nuclear Physics RAS); Petr V. Kalinin (Budker Institute of Nuclear Physics RAS); Nikolai Yu. Peskov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Naum S. Ginzburg (Institute of Applied Physics, Russian Academy of Sciences); Vasily D. Stepanov (Budker Institute of Nuclear Physics RAS); Vladislav Yu. Zaslavsky (Institute of Applied Physics, RAS);*
- 00:00 A Coaxial Dual-mode Relativistic Cerenkov Oscillator for High-efficiency Operation under Low Guiding Magnetic Field  
*Xingjun Ge (National University of Defense Technology); Rujin Deng (National University of Defense Technology); Xiaodong Hu (National University of Defense Technology); Peng Zhang (National University of Defense Technology); Hang Chi (National University of Defense Technology); Tao Li (National University of Defense Technology); Wang Wang (National University of Defense Technology);*
- 00:00 Research of the Effects of Typical Parameters on the Operational Characteristics of Relativistic Klystron Oscillators  
*Peng Zhang (National University of Defense Technology); Jiawen Li (National University of Defense Technology); Wang Wang (National University of Defense Technology); Xingjun Ge (National University of Defense Technology); Rujin Deng (National University of Defense Technology);*
- 00:00 A Design Method for a Linear Array Power Division Feeding Network Applied to Offset-fed Reflector Cylindrical Antennas  
*Lulu Jin (National University of Defense Technology); Chengwei Yuan (National University of Defense Technology); Qiang Zhang (National University of Defense Technology); Quan Zhang (National University of Defense Technology); Qinghe Zhuang (National University of Defense Technology); Yunfei Sun (National University of Defense Technology);*
- 00:00 Exploiting New Degrees of Freedom: Unlocking Next-gen Sensing & Communication Modalities  
*Jingzhi Zhang (University of Electronic Science and Technology of China);*
- 00:00 Area- and Power-efficient CMOS Bi-directional Front-end for B5G Phased-arrays  
*Pang Jian (Shanghai Jiaotong University);*
- 00:00 Design of High-performance Terahertz On-chip Antennas  
*Si-Yuan Tang (City University of Hong Kong); Peigen Zhou (Southeast University); Jixin Chen (Southeast University); Hang Wong (City University of Hong Kong);*
- 00:00 An Energy-efficient 210-GHz CMOS Transceiver Designed for Contactless Through-silicon Interconnects  
*Xiaodi Feng (Fudan University); Xiaohan Shen (Fudan University); Chen Jiang (Fudan University);*
- 00:00 An 18.9–26.9-GHz Broadband LNA with Source Degeneration for Satellite Applications  
*Yiwen Long (Southeast University); Zhihua Wang (Southeast University); Dawei Tang (Southeast University); Qianqi Meng (Southeast University); Lingzheng Kong (Southeast University); Peigen Zhou (Southeast University); Jixin Chen (Southeast University); Wei Hong (Southeast University);*
- 00:00 A 21–36 GHz GaN-on-Si MMIC Low-noise Amplifier with Hybrid Common-source/Cascode Architecture and Sub-0.7 dB Noise Figure  
*Yisi Yang (Guangzhou University); Xiuqiong Li (Guangzhou University); Xinran Huang (Guangzhou University); Jingyin Gu (Guangzhou University); Jiabin Chen (Guangzhou University); Yiyu Pan (Guangzhou University);*
- 00:00 A 65 nm CMOS 60 GHz Oscillator with Current-mode Implicit 3rd-harmonic Extraction Techniques  
*Ziqi Liu (Southeast University); Qingxing Liu (Southeast University); Xuan Wang (Southeast University); Kai Sun (Southeast University); Shutao Ye (Southeast University); Xiangning Fan (Southeast University); Lianming Li (Southeast University);*
- 00:00 An 11.45-to-37.84 GHz Quad-core Quad-mode VCO Using E-M Mixed-coupling Resonance Boosting  
*Yuqing Yang (Southeast University); Shunda Peng (Southeast University); Kai Sun (Southeast University); Xuan Wang (Southeast University); Shutao Ye (Southeast University); Ziqi Liu (Southeast University); Lianming Li (Southeast University);*
- 00:00 An 84–126 GHz Power Amplifier with 16.8 dBm Peak Output Power in 130-nm SiGe BiCMOS  
*Guohang Yuan (Southeast University); Zongxiang Wang (Southeast University); Qianqi Meng (Southeast University); Jinben Li (Southeast University); Yang Wang (Southeast University); Peigen Zhou (Southeast University); Jixin Chen (Southeast University);*

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**Session 2P6b**

**Microwave, mmWave, and sub-Terahertz Integrated Circuits**

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**Wednesday PM, July 29, 2026**

**Room 6 - CR 10**

Organized by Xuyang Lu, Peigen Zhou

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**Session 2P7a**
**Short-Oral Presentations for Best Student  
Presentation Awards Competition - Part 4**


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**Wednesday PM, July 29, 2026**
**Room 7 - VIP R3**


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- 00:00 An Online Co-simulation Optimization Method for Relativistic Magnetron Based on Surrogate-assisted Evolutionary Algorithm  
*Yao Zhang (University of Electronic Science and Technology of China); Tingxu Chen (University of Electronic Science and Technology of China); Bo Zhao (University of Electronic Science and Technology of China);*
- 00:00 Adaptive Quantum State Compilation via Adiabatic Tensor Network Optimization  
*Geng Chen (University of Electronic Science and Technology of China); Guowu Yang (University of Electronic Science and Technology of China); Lianhui Yu (University of Electronic Science and Technology of China); Wenjie Sun (University of Electronic Science and Technology of China); Desheng Zheng (University of Electronic Science and Technology of China); Guangwei Deng (University of Electronic Science and Technology of China); Haizhi Song (Southwest Institute of Technical Physics & UESTC); Xiao Yu Li (University of Electronic Science and Technology of China);*
- 00:00 Spin-decoupled Terahertz Metasurface for Independent OAM Generation via Coherent Vector Wavefront Synthesis  
*Junhao Li (Dongguan University of Technology); Haoxiang Chen (Dongguan University of Technology); Yang Yang (Dongguan University of Technology); Fei Shen (Dongguan University of Technology);*
- 00:00 Dual-wavelength Metalens Design for Compact LWIR and MWIR Imaging Systems  
*Ting Liu (University of Electronic Science and Technology of China); Weiming Zhu (University of Electronic Science and Technology of China); Shaowei He (University of Electronic Science and Technology of China);*
- 00:00 Polarization Vortices of BICs in the Luminescence Response of Photonic Crystal Slabs Formed on Si Structures with Ge(Si) Nanoislands  
*Artem V. Peretokin (Institute for Physics of Microstructures of the Russian Academy of Sciences); Margarita V. Stepihova (Institute for Physics of Microstructures RAS); Sergey A. Dyakov (Skolkovo Institute of Science and Technology); D. V. Yurasov (Institute of Physics of Microstructures RAS); Mikhail V. Shaleev (Institute of Physics of Microstructures RAS); D. V. Shengurov (Institute for Physics of Microstructures of RAS); Zhanna V. Smagina (Institute of Semiconductor Physics of SB RAS); Ekaterina E. Rodyakina (Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences); Alexey V. Novikov (Institute of Physics of Microstructures RAS);*
- 00:00 Investigation of the Effects of Spectral Broadening on the Performance of Metasurface Holographic Displays  
*Fan Sun (Huazhong University of Science and Technology); Long Yue (Huazhong University of Science and Technology); Yinglun Xu (Huazhong University of Science and Technology); Zhilin Teng (Huazhong University of Science and Technology); Hui Gao (Huazhong University of Science and Technology);*
- 00:00 Transmissive Pancharatnam-Berry Phase Metasurface for Circularly Polarized Beam Steering in the C-band Space Applications  
*Aman Tiwari (National Institute of Technology Calicut); Aryan Chak (National Institute of Technology Calicut); Natesan Yogesh (National Institute of Technology Calicut);*
- 00:00 High-pass Momentum Filtering of Hyperbolic Phonon Polaritons  
*Zhitao Zhang (University of Electronic Science and Technology of China); Yujie Tang (University of Electronic Science and Technology of China); Weiliang Ma (University of Electronic Science and Technology of China);*
- 00:00 Enhancing Second Harmonic Generation through Strong Coupling Enabled by Topological Edge States in Monolayer Transition Metal Dichalcogenides  
*Xinyi Zhao (The Chinese University of Hong Kong); Xiaokun Guo (The Chinese University of Hong Kong); Jingwen Ma (The University of Hong Kong); Zefeng Chen (The Chinese University of Hong Kong); Jianbin Xu (The Chinese University of Hong Kong);*
- 00:00 Broadband Convolutional Processing Using Nonlinear Photoresponse in Transition Metal Dichalcogenides  
*Yingshan Ma (Beijing Institute of Technology); Yunyun Dai (Beijing Institute of Technology);*
- 00:00 Spin-locking Effect of Light from Dynamical Random Scattering  
*Xiao Zhang (Shanghai Jiao Tong University); Mei Li (Shanghai Jiao Tong University); Erez Hasman (Technion — Israel Institute of Technology); Bo Wang (Shanghai Jiao Tong University); Xianfeng Chen (Shanghai Jiao Tong University);*

- 00:00 Cholesteric with Tangential-conical Anchoring for Light Polarization Control by Voltage and Incidence Angle  
*Denis Andreevich Kostikov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Mikhail Nikolaevich Krakhalev (Kirensky Institute of Physics); Stepan Vasilievich Nabol (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Pavel Sergeevich Pankin (Siberian Federal University); Dmitrii Nikolaevich Maksimov (Siberian Federal University); Vitaly Sergeevich Sutormin (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Abylgazy Sabiralievich Abdullaev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Ivan Vladimirovich Timofeev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Victor Yakovlevich Zyryanov (Kirensky Institute of Physics, Federal Research Center KSC SB RAS);*
- 00:00 kHz-rate Modulation of MEMS Infrared Heater via External Mechanical Chopping for Enhanced Photoacoustic Detection  
*Zeru Wang (Tianjin University); Yujie Wei (Tianjin University); Weiwei Cui (Tianjin University); Hao Zhang (Tianjin University);*
- 00:00 Toward High-transmittance Additive Manufactured Silica Glass: From Sintering Condition Optimization to Network Structure Relaxation  
*Liling Dong (Harbin Engineering University); Yushi Chu (Harbin Engineering University); Jianzhong Zhang (Harbin Engineering University);*
- 00:00 Improving Stability of Inverted Perovskite Solar Cells without Cathode Interlayer via Doped PC<sub>61</sub>BM by N-DMBI  
*Jialin Yang (Jilin University); Zilong Bing (Jilin University); Jingsong Huang (University of Oxford); Fenghong Li (Jilin University);*
- 00:00 Low-threshold Wavelength-tunable Amplified Spontaneous Emission Based on Bloch Surface Waves  
*Geng He (University of Oxford); Jie Lin (Oxford University); Jingsong Huang (University of Oxford); Donal D. C. Bradley (University of Oxford); Paul N. Stavrinou (Oxford University);*
- 00:00 A Dual-band Bezel-integrated Antenna with Wide Beamwidth for Low-orbit Satellite-to-handset Communication  
*Jiarui Liu (Tsinghua University); Yue Li (Tsinghua University);*
- 00:00 A Novel Wearable Antenna Based on EPDM Substrate for Breath Rate Measurement  
*Jehangir Khan (Tongji University); Shakeel Ahmad (Tongji University); Asad Khan (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 Development of 140 GHz Megawatt Power-level Planar Gyrotron with Transverse Energy Extraction  
*Anastasiya Andreevna Savilova (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Vladislav Yur'evich Zaslavsky (Institute of Applied Physics, Russian Academy of Sciences); Naum Samuilovich Ginzburg (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Ilya V. Zheleznov (Institute of Applied Physics, RAS); Alexander Sergeevich Sergeev (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Michael N. Vilkov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Andrey N. Kuftin (Institute of Applied Physics of the RAS); Ksenia A. Leshcheva (Institute of Applied Physics, RAS); Dmitry I. Sobolev (Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 Global Structure and Visual Attributes Guided SAR Aircraft Image Generation  
*Junyu Wang (National University of Defense Technology); Hao Sun (National University of Defense Technology); Tao Tang (National University of Defense Technology); Gangyao Kuang (National University of Defense Technology);*
- 00:00 Superpixel Segmentation Method for Polarimetric SAR Images Integrating Statistical Features and Edge-aware Spatial Constraints  
*Cong Huang (Northwestern Polytechnical University); Sutong Wang (Northwestern Polytechnical University); Hongyu Long (Northwestern Polytechnical University); Chun Liu (Northwestern Polytechnical University);*
- 00:00 Automatic Inversion of Concrete Moisture Content Based on GPR B-scan Images and Faster R-CNN Network  
*Shuangying Sun (Beijing Institute of Technology); Jing Wen (Beijing Institute of Technology); Yuhan Li (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);*
- 00:00 Spatiotemporal Evolution Characteristics of Construction Land in Yancheng City from Landsat Images  
*Bo Ru (Nanjing University of Information Science and Technology); Shuanggen Jin (Henan Polytechnic University);*
- 00:00 Polarimetric-spatial Joint Information-guided Sea Corner Reflector Arrays Identification with HRRP  
*Yanshan Hu (National University of Defense Technology); Hao-Liang Li (National University of Defense Technology); Si-Wei Chen (National University of Defense Technology);*
- 00:00 SAR Image Object Detection Based on Deep Learning Model Merging  
*Shicun He (National University of Defense Technology); Xinchao Wang (National University of Defense Technology); Si-Wei Chen (National University of Defense Technology);*

- 00:00 A General and Efficient Non-linear Estimation Method in Temporal Phase Unwrapping for PS-InSAR  
*Junjun Gao (Northwestern Polytechnical University); Yuziao Qin (Northwestern Polytechnical University);*
- 00:00 Conditional Denoising Diffusion Models for Optical-to-SAR Image Cross-modal Generation  
*Xianshu Ao (National University of Defense Technology); Shiqi Xing (National University of Defense Technology); Sinong Quan (National University of Defense Technology); Penghui Ji (National University of Defense Technology); Haoyu Zhang (National University of Defense Technology);*
- 00:00 Differentiable-response-guided Deep Learning Inversion for Azimuthal Electromagnetic Logging While Drilling  
*Shuo Wang (Hefei University of Technology); Rencheng Song (Hefei University of Technology);*
- 00:00 Pulsed-modulation Single-beam Three-axis Atomic Magnetometer  
*Shushan Gao (Beihang University); Xiaoyu Li (Beihang University); Jianwei Sheng (Beihang University); Guangmao Xu (Beihang University); Bangcheng Han (Fundamental Science on Novel Inertial Instrument & Navigation System Technology Laboratory); Jixi Lu (Beihang University);*
- 00:00 Deep-learning-enhanced Transcranial Microwave-induced Thermoacoustic Imaging of Millimeter-scale Metallic Targets  
*Yunxiao Zhao (ShanghaiTech University); Xiong Wang (ShanghaiTech University);*
- 00:00 Improvement of Phased Antenna Array Applied in Transcranial Focused Microwave Hyperthermia  
*Zijun Xi (ShanghaiTech University); Xiong Wang (ShanghaiTech University);*
- 00:00 Magnet Configurations in m-shaped Variable Reluctance Energy Harvesters  
*Mengfei Wu (Mid Sweden University); Ye Xu (Mid Sweden University); Sebastian Bader (Mid Sweden University); Bengt Oelmann (Mid Sweden University);*
- 00:00 Non-Hermitian Skin Effect in a Two-dimensional Lieb Photonic Crystal  
*Zhikang Xiong (Hubei University); T. Wen (Hubei University); Yangjie Liu (Hubei University); H. Lin (Central China Normal University); Bin Zhou (Hubei University);*
- 00:00 High-accuracy Noninvasive Blood Glucose Sensing via ANOVA-guided LSTM Modeling of Mueller-matrix Polarization Features  
*Jianqin Qin (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Yuwei Chen (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Chenxi Li (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Weizeng Yu (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*
- 00:00 WGAN-based Inverse Design of Narrowband Infrared Metasurface Absorbers  
*Hui Shen (Xidian University); T. Wang (Air Force Engineering University); X. Yao (Air Force Engineering University); O. Wu (Zhejiang University); C. Xie (Xidian University); C. Qian (Zhejiang University); Hongsheng Chen (Zhejiang University); Tao Wang (Xidian University);*
- 00:00 Electromagnetic Modal Modeling of Multi-scatterer Wireless Propagation in Localized Environments  
*Wenli Li (Shenzhen Research Institute of Big Data); Yi Zhang (Shenzhen Research Institute of Big Data); Guangxu Zhu (Shenzhen Research Institute of Big Data);*
- 00:00 Ultra-compact All-optical Switch Utilizing ENZ Indium Tin Oxide in Silicon  
*Linrui Guo (Peking University); Feng Ye (Peking University Shenzhen Graduate School); Qian Li (Peking University);*
- 00:00 TCAD Simulation on Optoelectronic Properties of n-AIN/p-Si Heterojunction VUV Photodetectors  
*Yang Zhang (Fudan University); Hongyu Tang (Fudan University);*
- 00:00 A Highly Miniaturized Wideband Reconfigurable Heptagonal Antenna with Unit Cell Integration for 5G/6G, IoT, and Wi-Fi 6E/7 Applications  
*Salah Eddine El Aoud (Cadi Ayyad University); Hind Abbaoui (Cadi Ayyad University); Saida Ibnayach (Cadi Ayyad University); Abdelouhab Zeroual (Cadi Ayyad University);*
- 00:00 Photonic Ising Machines with 20-bit Coupling Resolution  
*Huaqiang Li (Shanghai Jiao Tong University); Guangfeng Wang (Shanghai Jiao Tong University); Erez Hasman (Technion — Israel Institute of Technology); Bo Wang (Shanghai Jiao Tong University); Xianfeng Chen (Shanghai Jiao Tong University);*
- 00:00 Enhancing Foundation Models for Imbalanced SAR Ship Classification via Targeted Oversampling  
*Ch Muhammad Awais (University of Pisa); Marco Reggiannini (National Biodiversity Future Center (NBFC)); Davide Moroni (Institute of Information Science and Technologies, National Research Council (CNR)); Oktay Karakus (Cardiff University);*
- 00:00 Specific Emitter Identification Method for Variable Symbol Rate Communications  
*Dengxi Wang (National University of Defense Technology); Hui Liu (National University of Defense Technology);*
- 00:00 Mid-infrared Quantum Spectroscopy of Pyruvate in Aqueous Media via Induced Coherence  
*Lin Cheng (East China Normal University); Yu Chen (East China Normal University); Yujie Cai (East China Normal University); Xiaoying Wang (East China Normal University); Yihan Jia (East China Normal University); Kun Huang (East China Normal University); E Wu (East China Normal University);*

- 00:00 Q-modulated Nanophotonic Refractometric Sensing  
*Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);*
- 00:00 Tailoring Multidimensional Speckle via Physics-informed Learning  
*Ze-Huan Zheng (Xiamen University); Jinhui Chen (Xiamen University);*
- 00:00 Reset-and-reuse Metasurfaces via Direct Femtosecond-laser Nanopatterning of Glass  
*Yanchao Yang (Harbin Engineering University); Ruslan Azizov (Harbin Engineering University); Anhang Zhou (Harbin Engineering University); Pavel Sergeevich Pankin (ITMO University); Weit-ing Tang (Harbin Engineering University); Wenping Yin (Harbin Engineering University); Yuan Yuan (Harbin Engineering University); Andrey A. Bogdanov (Harbin Engineering University); Lev E. Zelenkov (Harbin Institute of Technology); Mingzhao Song (Harbin Engineering University); Sergey V. Makarov (ITMO University); Soslan Khubezhov (Harbin Engineering University);*
- 00:00 A Physics-informed Neural Network Framework for 2D Plane Wave Scattering in Inhomogeneous Dielectric Media  
*Yu Tian (Nanjing University of Aeronautics and Astronautics); Zheng-Yu Huang (Nanjing University of Aeronautics and Astronautics); Nicolae Coriolan Panoiu (University College London);*
- 00:00 A 3.2-GHz Stacked Class-E Power Amplifier in 180-nm SiGe BiCMOS  
*Luyan Xiao (Shanghai Jiao Tong University); Shiyu Su (University of Waterloo); Xuyang Lu (Shanghai Jiao Tong University);*
- 00:00 Multifunctional 3D-printed Metasurfaces for Multidimensional Light-field Modulation  
*Invited Hongtao Wang (Singapore University of Technology and Design);*
- 00:00 Sandwiched Plasmonic Metasurface for Efficient Polarization Conversion  
*Invited Song Sun (Microsystem and Terahertz Research Center, China Academy of Engineering Physics); Qingguo Du (Wuhan University of Technology);*
- 00:00 Near-field Coupling Metasurface Antenna Design for Arbitrary Steered Wavefront Generations  
*Invited Yuanxi Cao (Xi'an Jiaotong University);*
- 00:00 A Brain-controlled Space-Time Coding Metasurface  
*Invited Qiang Xiao (City University of Hong Kong);*
- 00:00 Chip-integrated Metasurface for Multidimensional Light-field Imaging  
*Invited Boyan Fu (Nanjing University); Shu-Ming Wang (Nanjing University); Xun Cao (Nanjing University); Shi-Ning Zhu (Nanjing University);*
- 00:00 AI-enabled Multimodal Meta-lens Vision  
*Invited Xiaoyuan Liu (Swiss Federal Institute of Technology Lausanne (EPFL)); Din Ping Tsai (City University of Hong Kong); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 High-resolution Wavefront Sensing with Flat Optics  
*Invited Yunhui Gao (Tsinghua University); Liangcai Cao (Tsinghua University); Din Ping Tsai (City University of Hong Kong);*
- 00:00 Disordered Metasurfaces Enabling Wide-gamut Matte Mimetic Camouflage with High-fidelity Transmission Imaging  
*Jin Qin (Nanjing University); Tao Yang (Nanjing University); Xiang Xiong (Nanjing University); Xiaolong Wei (Nanjing University); Jiatong Shi (Nanjing University); Hongchen Chu (Nanjing Normal University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University); Yun Lai (Nanjing University);*

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**Session 2P8**

**Multifunctional Metasurfaces: Fundamentals and Applications 2**

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**Wednesday PM, July 29, 2026**

**Room 8 - CR 11**

Organized by Jingcheng Zhang, Tianyue Li

Chaired by Jingcheng Zhang, Tianyue Li

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- 00:00 Nonlocal Meta-lens for High-Q Wavefront Shaping  
*Invited Jin Yao (City University of Hong Kong); Din Ping Tsai (City University of Hong Kong);*
- 00:00 Wavelength-scale Nonlocal Meta-devices for Light Trapping and Vector Beam Emitting  
*Invited Yubin Fan (Pengcheng Laboratory); Yuhan Wang (Pengcheng Laboratory); Xudong Zhang (The University of Hong Kong); Zi Wang (Harbin Institute of Technology (Shenzhen)); Qinghai Song (Harbin Institute of Technology);*
- 00:00 Metalens-enabled Twisted Chromatic Dispersion  
*Shiyu Zheng (Nanjing University); Boyan Fu (Nanjing University); Hong Zhang (Nanjing University); Shu-Ming Wang (Nanjing University);*
- 00:00 Boyer-Wolf Gaussian Modes Generation Based on Metasurface-integrated Fiber  
*Geze Gao (Nanjing University); Shu-Ming Wang (Nanjing University);*
- 00:00 Metasurface-integrated Optical Hybrid for Miniaturized Coherent Optical Receivers  
*Mengjing Xu (Tsinghua University); Bing Xiong (Tsinghua University); Changzheng Sun (Tsinghua University); Zhibiao Hao (Tsinghua University); Jian Wang (Tsinghua University); Lai Wang (Tsinghua University); Yanjun Han (Tsinghua University); Hongtao Li (Tsinghua University); Lin Gan (Tsinghua University); Yi Luo (Tsinghua University);*

00:00 Optically Transparent and Flexible Metasurface for RCS Reduction Based on a Synergistic Mechanism of OAM and Destructive Interference  
*Yaru Li (Northwestern Polytechnical University); Junyu Ren (Northwestern Polytechnical University); Mingze Hu (Northwestern Polytechnical University); Xiaoyan Pang (Northwestern Polytechnical University);*

00:00 An Ultra-wideband and Wide-angle Stable Low-RCS OAM Antenna  
*Junyu Ren (Northwestern Polytechnical University); Qi Zheng (Shanghai University); Mingze Hu (Northwestern Polytechnical University); Yaru Li (Northwestern Polytechnical University); Xiaoyan Pang (Northwestern Polytechnical University);*

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**Session 2P9**

**Acoustic/Elastic Metamaterials for Various Applications 3**

**Wednesday PM, July 29, 2026**

**Room 9 - CR 12**

Organized by Fuyin Ma, Rui Zhu, Xue Jiang

Chaired by Fuyin Ma

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00:00 Wave Control and Applications of Metamaterial Acoustofluidic Chips  
 Invited *Xianchen Xu (Beijing Institution of Technology (Zhuhai));*

00:00 Enhanced Energy Absorption in Honeycombs via Negative Local Resonance Plates  
*Jing Rao (Beihang University); Yao Huang (Beihang University);*

00:00 Wavefront Control and Wireless Water-air Communication by Acoustic Metasurface  
 Invited *L. Shi (Tianjin University); H. T. Zhou (Tianjin University); Yan-Feng Wang (Tianjin University); Y. S. Wang (Tianjin University);*

00:00 Research on Low-frequency Broadband Sound Absorption Metamaterials and Their Engineering Applications  
 Invited *Chongrui Liu (Xi'an Jiaotong University);*

00:00 Surface Acoustic Wave Phononic Crystals for Device Applications  
 Invited *Si-Yuan Yu (Nanjing University);*

00:00 Broadband Acoustic Topological Metamaterial Based on Fano Resonance  
 Invited *Changlin Ding (Northwestern Polytechnical University);*

00:00 Principles, Design, and Fabrication of Subwavelength Low-frequency Broadband Acoustic Black Hole Metamaterials  
 Invited *Yanni Zhang (Nanjing University of Science and Technology);*

00:00 Acoustic Orbital Topology

Invited

*Yu-Gui Peng (Huazhong University of Science and Technology); Feng Gao (Huazhong University of Science and Technology); Peng Wu (Huazhong University of Science and Technology); Xuefeng Zhu (Huazhong University of Science and Technology);*

00:00 An AutoML-powered Automated Framework for Inverse Design of Metamaterial Plates with Targeted Vibration Reduction

Invited *Zijian Zhao (Northwestern Polytechnical University); Shuwei Ren (Northwestern Polytechnical University); Xiangyang Zeng (Northwestern Polytechnical University);*

00:00 Acoustic Metamaterials Design for Aircraft Noise Reduction

Invited *Jie Zhou (Northwestern Polytechnical University); Hanjie Yang (Northwestern Polytechnical University); Xiaoxiao Xu (Northwestern Polytechnical University);*

00:00 Inverse Design of a Metamaterial-based Spinal Fixation System for Optimized Stability and Osseointegration

Invited *Hui Chen (Ningbo University);*

00:00 Dynamic and Wave Propagation Characteristics of the Regular Hexagonal Prism Modular Tensegrity Structure

Invited *Kai Zhang (Northwestern Polytechnical University);*

00:00 Lightweight and Multifunctional Mechanical Metamaterials Based on Disordered Designs

Invited *Bing Li (Northwestern Polytechnical University); Zhou Yang (Northwestern Polytechnical University); Fenglei Li (Northwestern Polytechnical University); Jiani Xiao (Northwestern Polytechnical University);*

00:00 Ultrasonic Guided Wave Imaging Method for Near-boundary Defects Based on Elastic Absorptive Metamaterials

Invited *Ailing Song (East China University of Science and Technology);*

00:00 Research on the Snapping Shrimp Sounds and Extension to Bioinspired Design

Invited *Zhongchang Song (Xiamen University); Wenzhan Ou (); Xuming Peng (); Luyao He (); Kanglin Wang (); Yufei Yin (); Zihan Xu (); Yu Zhang (Xiamen University);*

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**Session 2P10**

**Metadevices: Emitters, Modulators, Sensors, and Detectors 2**

**Wednesday PM, July 29, 2026**

**Room 10 - CR 13**

Organized by Jingxuan Wei, Danqing Wang, Zhaogang Dong

Chaired by Zhaogang Dong, Jingxuan Wei

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- 00:00 Polarization-multiplexed Metasensing via Anisotropic Nanostructures: From Polarization Imaging to Integrated Optoelectronic Devices  
Invited  
*Jingxuan Wei (University of Electronic Science and Technology of China);*
- 00:00 Metasurface-enabled Semiconductor Lasers: From On-chip Wavefront Engineering to Mode-controlled External Cavities  
Invited  
*Xin Huang (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Meixin Feng (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Hui Yang (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Qian Sun (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences);*
- 00:00 Tracking Cancer Progression and Treatment Response by Machine Learning-enhanced Metasurface Profiling of Extracellular Vesicles  
Invited  
*Fajun Li (Xiamen University); Jinfeng Zhu (Xiamen University);*
- 00:00 Near-field Seeing the Colorful Nano-world  
Invited  
*Xuezhi Ma (A\*STAR);*
- 00:00 Electrically Gated Photon Emission with Dynamic Spectral Control towards Scalable Quantum Networks  
*Yan Liu (Quantum Innovation Centre (Q. InC), Agency for Science Technology and Research (A\*STAR)); Zhao-gang Dong (Singapore University of Technology and Design);*
- 00:00 MEMS Photonic Sensors for Biochemical Detection  
Invited  
*Hong Zhou (Northwestern Polytechnical University);*
- 00:00 Long-range Optical Interactions with Structured Nanoscale Materials  
Invited  
*Danqing Wang (Fudan University);*
- 00:00 Two-dimensional Mid-infrared Sensor Enabling Simultaneous Perception and Encoding, and Hyperspectral Imaging  
Keynote  
*Qi Jie Wang (Nanyang Technological University);*
- 00:00 Nanostructure Lattices and Their Nanophotonic Devices  
Invited  
*Shikai Deng (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences);*
- 00:00 Controlling Lanthanide Optical Dynamics for Advanced X-ray Detection  
Invited  
*Yiming Wu (Xiamen University);*
- 00:00 Physics-inspired Design of Meta-devices  
Invited  
*Lei Jin (Hangzhou Dianzi University);*
- 00:00 Nanoscale 3D Printing of Photonic Elements  
Keynote  
*Joel K. W. Yang (Singapore University of Technology and Design);*

- 00:00 Metasurface for Quantum Optics  
Invited  
*Lin Li (East China Normal University);*
- 00:00 Atomic-scale Manufacturing for Chemical Sensing  
Invited  
*Bowei Zhang (East China University of Science and Technology);*

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**Session 2P11a**  
**Advances in Time-varying Metamaterials and Metasurfaces 2**

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**Wednesday PM, July 29, 2026**

**Room 11 - CR 15**

Organized by Huanan Li, Xuchen Wang, Fu Liu,  
Mohammad Sajjad Mirmoosa  
Chaired by Huanan Li, Fu Liu

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- 00:00 Microwave Luminal Metamaterials Implemented by Spatiotemporally Modulated Travelling Wave Accompanying Lines  
Invited  
*Yuhao Liao (University of Electronic Science and Technology of China); Tantaofan (University of Electronic Science and Technology of China); Xiaoyang Zhang (University of Electronic Science and Technology of China); Wei Cao (University of Electronic Science and Technology of China); Jiang Xiong (University of Electronic Science and Technology of China);*
- 00:00 Direct Measurement of Topological Invariants through Temporal Adiabatic Evolution of Bulk States in the Synthetic Brillouin Zone  
*Zhaoxian Chen (Nanjing University); Yuan-Hong Zhang (Hunan University); Xiao-Chen Sun (Nanjing University); Ruo-Yang Zhang (Hong Kong University of Science and Technology); Jiangshan Tang (Nanjing University); Xin Yang (Hunan University); Xuefeng Zhu (Huazhong University of Science and Technology); Yan-Qing Lu (Nanjing University);*
- 00:00 Spatiotemporal Modulation for Dynamic Acoustic Frequency Conversion and Energy Concentration  
*Di Mo (Xi'an Jiaotong University); Liu Yang (Xi'an Jiaotong University); Hanqiong Zheng (Xi'an Jiaotong University); Yuning Guo (Xi'an Jiaotong University);*
- 00:00 Observation of Temporal Wood Anomaly on Microwave Time-varying Impedance Surfaces  
*Jiarui Wang (University of Electronic Science and Technology of China); Yuhao Liao (University of Electronic Science and Technology of China); Jiang Xiong (University of Electronic Science and Technology of China);*
- 00:00 Event Soliton Formation in Mixed Energy-momentum Gaps of Nonlinear Spacetime Crystals  
*Liang Zhang (ShanghaiTech University); Zhiwei Fan (Newcastle University); Yiming Pan (ShanghaiTech University);*

- 00:00 Electric-dipole-suppressed Third-harmonic Chiroptical Scattering with Linear Polarization  
*Ruidong Ji (University of Bath); Bradleigh Kerrigan (University of Bath); Oliver Nedderman (University of Bath); G. Dan Pantoş (University of Bath); Ventsislav K. Valev (University of Bath);*
- 00:00 Asymmetric Terahertz Metasurfaces with Quasi-BIC Modes and Dual-channel Applications  
*Qun Ren (Tianjin University); Zihan Zhao (Tianjin University); Hengtong Zheng (Tianjin University); Jijia Li (Tianjin University); Yongshan Liang (Tianjin University); Yongjing Dang (Tianjin University); Kangyu Wang (Tianjin University); Zhiyi Cheng (Tianjin University); Yanwei Pang (Tianjin University); Hao Huang (Tianjin University); Jian Wei You (South-east University); Wei E. I. Sha (Zhejiang University); Xiuyu Wang (Tianjin University); Jianquan Yao (Tianjin University);*
- 00:00 Perfect Anomalous Reflection with Magnetless Nonreciprocity in Space-time Modulated Metagratings  
*Ke Li (Xi'an Jiaotong University); Runcheng Huang (Harbin Engineering University); Xuchen Wang (Harbin Engineering University); Fu Liu (Xi'an Jiaotong University);*

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**Session 2P11b**

**Metamaterials and Plasmonics for Environmental Science 1**

**Wednesday PM, July 29, 2026**

**Room 11 - CR 15**

Organized by Ventsislav K. Valev, Liwu Zhang, Xuezhi Zheng

Chaired by Ventsislav K. Valev, Xuezhi Zheng

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- 00:00 Photothermal Effects and Thermophotonics for Advanced Plasmonic Printing and Colored Radiative Cooling  
*Dangyuan Lei (City University of Hongkong);*
- 00:00 Inorganic Nanopillar Arrays Remarkably Enhance Photovoltaic Performance of Perovskite Solar Cells  
*Zhifeng Huang (The Chinese University of Hong Kong (CUHK));*
- 00:00 Modelling Nonlinear Optical Response of Arbitrary Clusters of Nanoparticles  
*Ivan Sekulic (University College London); Nicolae-Coriolan Panoiu (University College London);*
- 00:00 Nanostructured Plasmonically Active Titanium Nitride Thin Films for Scalable Antimicrobial Application  
*R. Bower (Imperial College London); W.-J. (Allen) Chen (Imperial College London); B. Rente (Imperial College London); Peter K. Petrov (Imperial College London);*

- 00:00 Controlling Light-matter Interaction in Plasmonic Nanohybrids for Photocatalysis  
*Marzia Ferrera (Istituto Italiano di Tecnologia and École Polytechnique Fédérale de Lausanne); Xin Jin (Istituto Italiano di Tecnologia); Milad Sabzehparvar (École Polytechnique Fédérale de Lausanne); Vincenzo Aglieri (Istituto Italiano di Tecnologia); Maria Ashraf (Istituto Italiano di Tecnologia); Giulia Tagliabue (EPFL); Andrea Toma (Istituto Italiano di Tecnologia);*
- 00:00 Electric-dipole-suppressed Third-harmonic Chiroptical Scattering with Linear Polarization  
*Ruidong Ji (University of Bath); Bradleigh Kerrigan (University of Bath); Oliver Nedderman (University of Bath); G. Dan Pantoş (University of Bath); Ventsislav K. Valev (University of Bath);*

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**Session 2P12**

**Cavity Quantum Materials**

**Wednesday PM, July 29, 2026**

**Room 12 - CR 16**

Organized by Qing-Dong Jiang, Zhiyuan Sun

Chaired by Qing-Dong Jiang, Zhiyuan Sun

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- 00:00 Cavity Vacuum Field Control of Mesoscopic Moiré Systems  
*Keynote*  
*Wang Yao (The University of Hong Kong);*
- 00:00 Tunable Casimir Effect and Superconductivity in Cavity  
*Invited*  
*Changgan Zeng (University of Science and Technology of China);*
- 00:00 A Path to Quantum Simulations of Topological Phases: (2 + 1)D Quantum Electrodynamics with Wilson Fermions  
*Invited*  
*Sriram Bharadwaj (University of California); Emil Rosanowski (University of Bonn); Simran Singh (University of Bonn); Alice Di Tucci (Deutsches Elektronen-Synchrotron DESY); Changnan Peng (Massachusetts Institute of Technology); Karl Jansen (Deutsches Elektronen-Synchrotron DESY); Lena Funcke (University of Bonn); Di Luo (Tsinghua University);*
- 00:00 Cavity Tuning Integer Quantum Hall Effect  
*Invited*  
*Jie Wang (Peking University);*
- 00:00 Superradiant Strongly Correlated Quantum States in Cavity Hubbard Model  
*Invited*  
*Kang Wang (Institute of Physics, Chinese Academy of Sciences); Wei-Xuan Chang (Institute of Physics, Chinese Academy of Sciences); Cheng-Yu Bi (Institute of Physics, Chinese Academy of Sciences); Zi Cai (Shanghai Jiao Tong University); Zi-Xiang Li (Institute of Physics, Chinese Academy of Sciences);*
- 00:00 Imaging of Hot Electrons in Semiconductor Nanodevices via Thermal Casimir Effect  
*Invited*  
*Zhenghua An (Fudan University);*

- 00:00 Manipulating Nonlinear Optical Effects in Low-dimensional Materials  
Invited *Chong Wang (Tsinghua University);*
- 00:00 Dirac and Weyl Physics with Plasmons  
Invited *Dmitry K. Efimkin (Monash University);*
- 00:00 Coherent Nonlinear Magnon-phonon Dynamics and Related Cavity Effects in Layered Antiferromagnets  
Invited *Qi Zhang (Nanjing University);*
- 00:00 The Control of Fabry-Pérot Nanocavities via Casimir Force in an Electrolyte Solution  
Invited *Lixin Ge (Xinyang Normal University); Kaipeng Liu (Xinyang Normal University); Shuai Zhou (Xinyang Normal University); Ke Gong (Xinyang Normal University);*
- 00:00 Cavity QED Control of Superconducting States with Phonon Polaritons  
Invited *Shuai Zhang (Fudan University);*
- 00:00 Emergence of Triplet Superconductivity from Cavity Vacuum Fluctuations  
*Xin-Xin Yang (Shanghai Qizhi Institute); Shuai Zhang (Fudan University); Kun Ding (Fudan University); Xiaopeng Li (Fudan University);*
- 00:00 Novel Quantum Fluctuation Effects in Condensed Matter Systems  
Invited *Changgan Zeng (University of Science and Technology of China);*
- 00:00 Less is More: The Rise of Vacuumtronics  
*Qing-Dong Jiang (Shanghai Jiao Tong University);*
- 00:00 Engineering Materials Using Driven Cavities  
*Zhiyuan Sun (Tsinghua University);*

- 00:00 Bosonic Non-linearity with Trapped Ions  
Invited *Nigel Benjamin Lee (National University of Singapore); Eugene Koh (National University of Singapore); Rongjie Zhang (National University of Singapore); Jiacheng You (National University of Singapore); Mu-Young Kim (National University of Singapore); Dzmitry Matsukevich (National University of Singapore);*
- 00:00 Progress on Quantum Computation and Simulation with 2D Trapped Ion Crystals  
Invited *Yukai Wu (Tsinghua University);*
- 00:00 Trapped-Ion Quantum Simulation of Chemical Dynamics beyond Born-Oppenheimer  
Invited *Guido Pagano (Rice University);*
- 00:00 Issues on Scaling Long-chain Trapped-ion Quantum Processors  
Invited *Yao Lu (Hefei National Laboratory);*
- 00:00 Quantum Enhancement without Quantum Coherence in a Spin Otto Engine  
Invited *Kaifeng Cui (Zhengzhou University); Jinfeng Wei (Zhengzhou University); Xi Wang (Zhengzhou University); Zhe Wang (Zhengzhou University); Yilin Zhan (Zhengzhou University); Jintao Bu (Zhengzhou University); Jianhui Wang (Nanchang University); Mang Feng (Wuhan Institute of Physics and Mathematics, Innovation Academy of Precision Measurement Science and Technology, Chinese Academy of Sciences); Leilei Yan (Zhengzhou University); Gang Chen (Zhengzhou University);*
- 00:00 Dynamical Freezing and Enhanced Magnetometry in an Interacting Spin Ensemble  
Invited *Pan-Yu Hou (Tsinghua University);*

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**Session 2P13a**  
**Quantum Computation, Quantum Simulation and Quantum Metrology**

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**Wednesday PM, July 29, 2026**

**Room 13 - CR 17**

Organized by Yukai Wu, Pan-Yu Hou

Chaired by Yukai Wu, Pan-Yu Hou

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- 00:00 Quantum Simulation of Spin-boson Systems with Trapped-ion  
Invited *Yiheng Lin (University of Science and Technology of China);*
- 00:00 Structural Transitions and Melting of Two-dimensional Ion Crystals in RF Traps  
Invited *Boris Blinov (University of Washington);*

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**Session 2P13b**  
**Quantum Information Theory and Quantum Computing Algorithms**

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**Wednesday PM, July 29, 2026**

**Room 13 - CR 17**

Organized by You Zhou

Chaired by Dayue Qin

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- 00:00 Enhancing Classical Simulation with Noisy Quantum Devices  
*Ruiqi Zhang (Tsinghua University); Fuchuan Wei (Tsinghua University); Zhaohui Wei (Tsinghua University);*
- 00:00 Measuring Less to Learn More: Quadratic Speedup in Learning Nonlinear Properties of Quantum Density Matrices  
*Yukun Zhang (Peking University); Yusen Wu (Beijing Normal University); You Zhou (Fudan University); Xiao Yuan (Peking University);*

- 00:00 Qubit-efficient Simultaneous Estimation of Nonlinear Quantum Properties  
*Xiao Shi (The Hong Kong University of Science and Technology (Guangzhou)); Jiyu Jiang (The Hong Kong University of Science and Technology (Guangzhou)); Xian Wu (The Hong Kong University of Science and Technology (Guangzhou)); Jingu Xie (The Hong Kong University of Science and Technology (Guangzhou)); Hongshun Yao (The Hong Kong University of Science and Technology (Guangzhou)); Xin Wang (Hong Kong University of Science and Technology (Guangzhou));*
- 00:00 Non-asymptotic Approximation Error Bounds of Parameterized Quantum Circuits  
*Zhan Yu (Wuhan University); Qiu hao Chen (Wuhan University); Yuling Jiao (Wuhan University); Yiman Li (Wuhan University); Xiliang Lu (Wuhan University); Xin Wang (Hong Kong University of Science and Technology (Guangzhou)); Jerry Zhijian Yang (Wuhan University);*
- 00:00 Error-structure-tailored Early Fault-tolerant Quantum Computing  
*Pei Zeng (The University of Chicago); Guo Zheng (The University of Chicago); Qian Xu (The University of Chicago); Liang Jiang (The University of Chicago);*
- 00:00 Auxiliary-free Replica Shadows: Efficient Estimation of Multiple Nonlinear Quantum Properties  
*Qing Liu (Fudan University); Zihao Li (Fudan University); Xiao Yuan (Peking University); Huangjun Zhu (University of Cologne); You Zhou (Fudan University);*
- 00:00 Classical Noise Inversion: A Practical and Optimal Framework for Robust Quantum Applications  
*Dayue Qin (Fudan University); Ying Li (Graduate School of China Academy of Engineering Physics); You Zhou (Fudan University);*
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- Session 2P14a**  
**Terahertz Photonics 2**
- 
- Wednesday PM, July 29, 2026**  
**Room 14 - VIP R5**
- Organized by Hao Tian, Nikolay V. Petrov, Mikhail V. Rybin, Li Li  
 Chaired by Nikolay V. Petrov, Li Li
- 
- 00:00 Broadband Terahertz Transmission Beam Scanning on Reversed-current 1-bit TRIS  
*Deya Chen (Chengdu Huazhixing Electronic Technology Co., Ltd.); Feng Lan (University of Electronic Science and Technology of China); H. Yuan (University of Electronic Science and Technology of China); Y. Liu (University of Electronic Science and Technology of China);*
- 00:00 Broadband Sub-terahertz Transmission Beam Scanning and Self-modulation on Reversed-current 1-bit TRIS  
*Yanchu Liu (University of Electronic Science and Technology of China); Feng Lan (University of Electronic Science and Technology of China); Munan Yang (University of Electronic Science and Technology of China); Yueting Li (University of Electronic Science and Technology of China); Xiaolei Nie (University of Electronic Science and Technology of China); Jiayao Yang (University of Electronic Science and Technology of China); Hui Yuan (University of Electronic Science and Technology of China); Yaxin Zhang (University of Electronic Science and Technology of China); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Dual-polarization Multiplexing Terahertz 2-D Beam Steering on Flip-chip-BGA Mounted RIS  
*Longhui Fang (University of Electronic Science and Technology of China); Feng Lan (University of Electronic Science and Technology of China); Xiaolei Nie (University of Electronic Science and Technology of China); Hui Yuan (University of Electronic Science and Technology of China); Yaxin Zhang (University of Electronic Science and Technology of China); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 2-bit Terahertz RIS Based on Asymmetric Continuous Gate Control Coding  
*Ze Yang Wen (University of Electronic Science and Technology of China); Feng Lan (University of Electronic Science and Technology of China); Guopeng Chen (University of Electronic Science and Technology of China); Munan Yang (University of Electronic Science and Technology of China); Yaxin Zhang (University of Electronic Science and Technology of China); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Terahertz Independent Coding RIS Based on Coupling Control of Double-layer Complementary Resonance Structure  
*Xuyu Liu (University of Electronic Science and Technology of China); Feng Lan (University of Electronic Science and Technology of China); Jiayao Yang (University of Electronic Science and Technology of China); Yueting Li (University of Electronic Science and Technology of China); Yaxin Zhang (University of Electronic Science and Technology of China); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Terahertz Surface-emitting Photonic Devices for Vortex Invited Beam Generations and Wireless Communications  
*Faqian Chong (Zhejiang University); Yulun Wu (Zhejiang University); Song Han (Zhejiang University);*

00:00 Self-complementary Plasmonic Metasurfaces for Infrared  
Invited Photonics

*Inti L. Ruiz (Universidad Nacional de Colombia); Syuzanna M. Asadulina (ITMO University); Juan P. Del Risco (Universidad Militar Nueva Granada); Julián D. Ortiz (Universidad de San Buenaventura); Juan Domingo Baena Doello (Universidad Nacional de Colombia);*

00:00 Promising Optical and Photonic Applications of  
Invited Metastable Topological Structures in Chiral Liquid Crystals

*Tatiana Orlova (Yerevan State University);*

00:00 Terahertz Multiplexed Vortex Surface Plasmon Polaritons on Cylindrical Waveguide: Generation and Investigation

*Natalya D. Osintseva (Udker Institute of Nuclear Physics SB RAS); Vasiliy V. Gerasimov (Budker Institute of Nuclear Physics SB RAS); Vladimir S. Pavelyev (Samara National Research University (Samara University));*

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**Session 2P14b**

**Terahertz Technologies at Scale: Devices, Systems, and Material Characterization**

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**Wednesday PM, July 29, 2026**

**Room 14 - VIP R5**

Organized by Abdullah Eroglu

Chaired by Abdullah Eroglu

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00:00 An Experiment for Ice Cloud Passive Microwave Remote Sensing Detection: The Observation Response of the Terahertz Ice Cloud Airborne Radiometer (TICAR)

*Xiaodong Zhang (Shanghai Spaceflight Institute of TT&C and Telecommunication); Chengyuan Li (Shanghai Spaceflight Institute of TT&C and Telecommunication); Xiuqing Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Jian Shang (National Satellite Meteorological Center (National Centre for Space Weather)); Jianfeng Feng (Shanghai Spaceflight Institute of TT&C and Telecommunication); Lingge Qu (Shanghai Central Meteorological Observatory);*

00:00 TICAR: Terahertz Ice Cloud Airborne Radiometer

*Enchen Li (Shanghai Spaceflight Institute of TT&C and Telecommunication); Bo Zhu (Shanghai Spaceflight Institute of TT&C and Telecommunication); Kun Qin (Shanghai Spaceflight Institute of TT&C and Telecommunication); Lifei Jiang (Shanghai Spaceflight Institute of TT&C and Telecommunication); Feng Zhao (Shanghai Spaceflight Institute of TT&C and Telecommunication); Zhipeng Qian (Shanghai Spaceflight Institute of TT&C and Telecommunication); Pengfei Liu (Shanghai Spaceflight Institute of TT&C and Telecommunication);*

00:00 Ultra-wideband 1-bit Graphene-based RIS Unit Cell for Sub-THz Applications

*Son Vu (SUNY Polytechnic Institute); Abdullah Eroglu (SUNY Polytechnic Institute);*

00:00 Investigation of THz Cavity Characteristics

*K. Kumar (SUNY Polytechnic Institute); K. Ibrahimovic (SUNY Polytechnic Institute); Abdullah Eroglu (SUNY Polytechnic Institute);*

00:00 Detection and Localization of Tumor Tissue Regions by Non-invasive THz Imaging

*K. Kumar (SUNY Polytechnic Institute); A. Manzourolajdad (SUNY Polytechnic Institute); J. Li (SUNY Polytechnic Institute); E. Eroglu (University of North Carolina); S. Krishnamurthy (SUNY Polytechnic Institute); Abdullah Eroglu (SUNY Polytechnic Institute);*

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**Session 2P15**

**Optoelectronic Properties and Applications of Large-area Processible Semiconductors 1 & 2**

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**Wednesday PM, July 29, 2026**

**Room 15 - CR 18**

Organized by Jingsong Huang, Donal D. C. Bradley, Paul N. Stavrinou

Chaired by Jingsong Huang

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00:00 Solution-processed MicroOLEDs

Invited

*Guohua Xie (Xiamen University); Qin Xue (Central China Normal University);*

00:00 Direct Photolithography of Quantum Dots via Photoclick Chemistry for High-resolution QLEDs

Invited

*Chaoyu Xiang (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences);*

00:00 High-performance Organic Single-crystal Semiconductors for Optoelectronic Applications

Invited

*Jing Feng (Jilin University);*

00:00 Monochromatic Laser-like Microcavity QLEDs

Invited

*Jie Lin (Oxford University); Jingsong Huang (Oxford Suzhou Centre for Advanced Research, University of Oxford);*

00:00 Optical Gain of Organics in the Multilayer Thin-film Devices

*Qi Zhang (Nanjing University of Posts and Telecommunications); Zhiyuan Zhang (South China University of Technology); Ruidong Xia (Nanjing University of Posts and Telecommunications); Junbiao Peng (South China University of Technology);*

00:00 Fabrication and Applications of Multicolor Carbon Dot-based Lasers

Invited

*Yongsheng Hu (Zhengzhou University); Yongqiang Zhang (Zhengzhou University); Siyu Lu (Zhengzhou University);*

- 00:00 Luminescent Radical Materials and Devices  
Invited  
*Feng Li (Jilin University);*
- 00:00 Light-emitting Materials: Perovskite, I-III-VI QDs, and  
Invited Hyperfluorescent Organics for Next-generation LEDs  
*Guojie Wang (University of Science and Technology Beijing);*
- 00:00 Improving the Performance of Organic Semiconductor  
Invited Optoelectronic Devices via a Novel Giant Polyoxomolybdate Bifunctional Interlayer Material  
*Jing Qiu (Jilin University); Donal D. C. Bradley (University of Oxford); Jingsong Huang (University of Oxford); Lixin Wu (Jilin University); Fenghong Li (Jilin University);*
- 00:00 Organic Single-crystal Transistors for Bionic Visual Systems  
Invited  
*Jiansheng Jie (Soochow University);*
- 00:00 Inorganic Electrochromic Materials and Devices: Towards Flexible, Colorful, and Dynamic Optothermal Regulation  
Invited  
*Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*
- 00:00 Enhanced Amplified Spontaneous Emission in Organic  
Invited Films Using a Single-sided Bragg Reflector and Air Cladding  
*Wentian Zhang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Tienan Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Keling Zhang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xinxin Yao (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xiaoyang Guo (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*
- 00:00 Giant Nonlinear Raman Responses from Organic Semiconductors  
Invited  
*Yi Jiang (Nanjing University of Posts and Telecommunications); Wenyong Lai (Nanjing University of Posts and Telecommunications);*
- 00:00 Diketopyrrolopyrrole (DPP)-based Ambipolar OMIECs for Logic Circuits  
Invited  
*Jian Liu (Changchun Institute of Applied Chemistry, Chinese Academy of Sciences);*
- 00:00 The Treatment of Self-assembled Monolayers for Efficient and Stable Inverted Perovskite Solar Cells  
Invited  
*Feng Yan (The Hong Kong Polytechnic University);*

- 00:00 Efficient Flexible Blue Perovskite Electroluminescence  
Invited via Surface Crystal Orientation Engineering  
*Naizhen Li (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Kai Sun (South China Normal University); Xiaoyang Guo (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Tienan Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Weili Yu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Zhen Wang (South China Normal University); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*

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### Session 2P16a

#### Advanced Photonic Structures and Optical Effects: Light-matter Interactions, Resonances and Topology

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Wednesday PM, July 29, 2026

Room 16 - CR 19

Organized by Vito Mocella, Ivo Rendina

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- 00:00 Highly Mode-selective Topological Edge-state Cavity for Tunable Polarization-singularity Nanolasers  
*Guanjie Zhang (Shanghai Jiao Tong University); Xinghong Chen (Shanghai Jiao Tong University); Kong Zhang (Shanghai Jiao Tong University); Letian Meng (Shanghai Jiao Tong University); Yifei Mao (Shanghai Jiao Tong University);*
- 00:00 Fully Circularly Polarized Ultrabroadband THz Pulses: A New Tool for THz Chiral Optical Spectroscopy  
*Domenico Paparo (ISASI — Institute of Applied Sciences and Intelligent Systems);*
- 00:00 Broadband BICs in Photonic Crystal Slabs: From Theory to Experimental Visualization  
*Karen Caicedo (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Fabrizio Sgrignuoli (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Adam M. Schwartzberg (Molecular Foundry, Lawrence Berkeley National Laboratory); Scott Duehy (Molecular Foundry, Lawrence Berkeley National Laboratory); Silvia Romano (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Gianluigi Zito (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Ivo Rendina (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Vito Mocella (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI);*

- 00:00 Light Localization in Correlated Disorder Materials  
*Nicoletta Granchi (University of Florence); G. Calusi (University of Florence); K. Stokkerei (University of Surrey); M. Lodde (Eindhoven University of Technology); C. Gonzini (University of Florence); Andrea Fiore (Eindhoven University of Technology); M. Florescu (University of Southampton); Francesca Intonti (University of Florence);*
- 00:00 Innovative Nanostructures for Sensing and Biomedical Applications  
*Carlo Altucci (Università degli Studi di Napoli Federico II);*
- 00:00 Highly Focused Laser Beams for Investigating Cosmic Dust and Detecting Sea Microplastics  
*Alessandro Magazzù (CNR-IPCF, Istituto per i Processi Chimico-Fisici); Silvie Bernatova (CNR-IPCF, Istituto per i Processi Chimico-Fisici); Maria Grazia Donato (CNR-IPCF, Istituto per i Processi Chimico-Fisici); Antonino Foti (CNR-IPCF, Istituto per i Processi Chimico-Fisici); Maria Antonia Iatì (CNR-IPCF, Istituto per i Processi Chimico-Fisici); Pietro G. Gucciardi (CNR IPCF, Istituto per i Processi Chimico-Fisici); Onofrio M. Marago (CNR-IPCF, Istituto per i Processi Chimico-Fisici);*
- 00:00 Mid-infrared All-dielectric Metasurfaces for Sensing Applications  
*Nunzio Timpanaro Pirrina (Università di Palermo); Martina Mercurio (Sapienza Università di Roma); Vito Mocella (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Vincenzo Aglieri (Istituto Italiano di Tecnologia); Andrea Toma (Istituto Italiano di Tecnologia); Maria Cristina Larciprete (Sapienza Università di Roma); Roberto Macaluso (University of Palermo);*
- 00:00 Engineering Mid-infrared Near-field Optical Effects Using Pixelated Plasmonic Metasurfaces and Azide Vibrational Probes  
*Federica Donadio (Institute of Applied Sciences and Intelligent Systems “Eduardo Caianiello” (ISASI) — National Research Council (CNR)); Gennaro Sanità (Institute of Applied Sciences and Intelligent Systems (ISASI)); Valentina Di Meo (CNR — Istituto Superconduttori, Materiali Innovativi e Dispositivi (SPIN)); Alessio Crescitelli (Institute of Applied Sciences and Intelligent Systems (ISASI)); Angela Oliver (CNR — Institute of Biostructures and Bioimaging (IBB)); Annamaria Sandomenico (CNR — Institute of Biostructures and Bioimaging (IBB)); Vincenzo Galdi (Università degli Studi di Salerno); Menotti Ruvo (); Ivo Rendina (Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI); Emanuela Esposito (Institute of Applied Sciences and Intelligent Systems (ISASI));*
- 00:00 Ultrafast Charge Transfer in Confined Systems for the Control of Electronic and Quantum Properties  
*Davide Boschetto (Institut Polytechnique de Paris);*

- 00:00 Whispering-gallery Mode Enhanced Chemical Sensing  
*Davide D’Ambrosio (National Institute of Optics (CNR-INO)); Naveed Ahmed Chishti (Istituto Nazionale di Ottica (INO)); Benedetta Catalano (University of Naples Federico II); Giuseppe Pesce (University of Naples Federico II); Giulia Rusciano (Università di Napoli “Federico II”); Antonio Sasso (University of Naples Federico II); Gianluca Gagliardi (CNR, Istituto Nazionale di Ottica (INO));*
- 00:00 Silicon Photonics: Past, Present and Future  
*Bahram Jalali (University of California at Los Angeles);*

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**Session 2P16b**  
**Nonlinear and Quantum Optics in an Optical Microcavity**

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**Wednesday PM, July 29, 2026**

**Room 16 - CR 19**

Organized by Wenjie Wan

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- 00:00 Optical Control of Nonlinear Hall Photocurrents with Account of Skew Scattering in 2D Valley Semiconductors in the Vicinity of a Cyclotron Resonance  
*Valeriia N. Ivanova (Guangdong Technion — Israel Institute of Technology); Vadim M. Kovalev (Siberian Branch of RAS); Ivan G. Savenko (Guangdong Technion-Israel Institute of Technology (GTIIT));*
- 00:00 Spatiotemporal Dynamics in Semiconductor VCSELs under Cross-polarization Reinjection  
*Z. Li (Xidian University); Y. Ma (Xidian University); Tao Wang (Xidian University); B. Su (Xidian University); J. Huang (Xidian University); S. Xiang (Xidian University); S. Barland (Université Côte d’Azur); Y. Hao (Xidian University);*
- 00:00 Cavity Optomechanical Frequency Conversion and Coherent Storage  
*Zhen Shen (University of Science and Technology of China);*
- 00:00 Nonlinear Physics and Optics in Asymmetric Microcavities  
*Qi-Tao Cao (Peking University);*
- 00:00 Compact Low-noise Dual Microcombs for High-precision Ranging and Spectroscopy Applications  
*Zhen-Da Xie (Nanjing University);*
- 00:00 Integrated Lithium Niobate/Tantalate Nonlinear Photonic Devices  
*Juanjuan Lu (Shanghai Tech University);*
- 00:00 Integrated Nonlinear and Quantum Photonics in SiC-on-insulator Microresonators  
*Andrew Wing On Poon (The Hong Kong University of Science and Technology); Jiantao Wang (The Hong Kong University of Science and Technology); Jiayang Li (The Hong Kong University of Science and Technology); Qianni Zhang (The Hong Kong University of Science and Technology);*

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**Session 2P17**
**Chiral Light-matter Interactions in Nonlocal Metasurfaces 2**


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**Wednesday PM, July 29, 2026**
**Room 17 - CR 20**

Organized by Yuri Kivshar, Zhanghua Han, Maxim V. Gorkunov

 Chaired by Yuri Kivshar, Maxim V. Gorkunov

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- 00:00 Metasurface-induced Chiroptical Raman Scattering from Achiral Molecules  
*Ruidong Ji (University of Bath); John F. Kerr (University of Bath); Tim Batten (Renishaw plc); Daniel Wolverson (University of Bath); Ventsislav K. Valev (University of Bath);*
- 00:00 Classical and Quantum Nonlinear Chirality with Quasi-bound States in the Continuum  
*Maxim V. Gorkunov (National University of Science and Technology MISiS);*
- 00:00 Compact Sources of Circularly Polarized Light Based on Chiral Photonic Crystal Slabs and Metamembranes  
*S. G. Tikhodeev (Lomonosov Moscow State University);*
- 00:00 Resonant Symmetry Breaking: Perfect Helicity-preserving Reflection at Near-normal Incidence  
*Jan David Fischbach (Karlsruhe Institute of Technology); Lukas Rebholz (Karlsruhe Institute of Technology); Nikita Ustimenko (Karlsruhe Institute of Technology (KIT)); M. Nyman (Karlsruhe Institute of Technology (KIT)); Carsten Rockstuhl (Karlsruhe Institute of Technology); Ivan Fernandez-Corbaton (Karlsruhe Institute of Technology);*
- 00:00 Extending Chiral Metasurface Functionalities in the Momentum Space  
*Alexander Antonov (Ludwig-Maximilians-University of Munich); Connor Heimig (Ludwig-Maximilians-University of Munich); Tao Jiang (Ludwig-Maximilians-University of Munich); Dmytro Gryb (Ludwig-Maximilians-University of Munich); Leonardo de S. Menezes (Ludwig Maximilian University of Munich); Maxim V. Gorkunov (National University of Science and Technology MISiS); Andreas Tittl (Ludwig-Maximilians-Universität München);*
- 00:00 Chiral Guided-mode Resonances in Partially Etched Metasurfaces with Tailorable Quality Factors and Circular Dichroism  
*Zhancheng Li (Nankai University); Shiwang Yu (Nankai University); Yuexin Sun (Nankai University); Shuqi Chen (Nankai University);*
- 00:00 Low-symmetry Structures for Chiral Light Management  
*Denis G. Baranov (Moscow Institute of Physics and Technology);*
- 00:00 Robust Planar Chirality for Versatile Chiral Nonlinear Encoding  
*Meng-Xia Hu (Jinan University); Xin Zhang (Jinan University); Pan Li (Jinan University); Xin Li (Jinan University); Xiangping Li (Jinan University); Zilan Deng (Jinan University);*
- 00:00 Exploiting Non-Hermitian Metasurfaces to Enhance Chirality Sensing  
*Ioannis Katsantonis (Institute of Electronic Structure and Laser, Foundation for Research and Technology); Maria Kafesaki (Institute of Electronic Structure and Laser, Foundation for Research and Technology);*
- 00:00 Quasi-bound States in the Continuum with Chiral Flatbands for Entangled Photon Generation  
*Alena V. Mamonova (Shubnikov Institute of Crystallography, NRC "Kurchatov Institute"); Maxim V. Gorkunov (National University of Science and Technology MISiS);*
- 00:00 Organic Electrochemical Meta-displays  
*Na Liu (University of Stuttgart);*
- 00:00 Scaling the Functional Density of Resonant Metasurfaces  
*Chi Li (Monash University); Stefan Alexander Maier (Monash University); Haoran Ren (Monash University);*
- 00:00 Chiral Resonators Based on Broadband All-dielectric Handedness Preserving Mirrors: Theory and Experiment  
*Sergey A. Dyakov (Skolkovo Institute of Science and Technology); Natalia S. Salakhova (Skolkovo Institute of Science and Technology); A. Demenev (Osipyan Institute of Solid State Physics RAS); O. Klimenko (Skolkovo Institute of Science and Technology); V. D. Kulakovskii (Osipyan Institute of Solid State Physics RAS); V. Antonov (Skolkovo Institute of Science and Technology); Nikolay A. Gippius (Skolkovo Institute of Science and Technology);*
- 00:00 Plasmonically Induced Dichroism in Metal-superconductor Nanowire Detector Arrays for On-chip Quantum State Tomography  
*Pierre Brosseau (Nanyang Technological University); Giorgio Adamo (Nanyang Technological University); Jiawei Wang (Nanyang Technological University); Ruixiang Guo (Nanyang Technological University); Anton N. Vetlugin (Nanyang Technological University); Cesare Soci (Nanyang Technological University);*
- 00:00 Asymmetry-engineered Metasurfaces: A Platform for Advanced Light-field Control and Sensing  
*Joel K. W. Yang (Singapore University of Technology and Design);*
- 00:00 All-to-circular Nonlinear Polarization Conversion in Chiral Resonant Metasurfaces  
*Dmitrii Gromyko (Singapore University of Technology and Design (SUTD)); Cheng-Wei Qiu (National University of Singapore); Lin Wu (Singapore University of Technology and Design (SUTD));*

**Session 2P18**

**Recent Developments of Diffractive Optical Sensors Using Machine Learning 3**

**Wednesday PM, July 29, 2026**

**Room 18 - VIP R8**

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

- 00:00 Application of Deep Learning Technologies for Recognition of the Characteristics of Optical Vortices  
*Elena Sergeevna Kozlova (Samara National Research University & NRC "Kurchatov Institute"); Dmitry O. Shilov (Samara National Research University); Ilya V. Sobolev (Samara National Research University);*
- 00:00 Topologically Robust Communication and Intelligent Sensing  
*Yijie Shen (Nanyang Technological University);*
- 00:00 Ultrafast Holographic Fourier-Transform Infrared Microscopy for Cancer Studies  
Invited  
*Marko Rodewald (Polytechnic University of Milan); Guglielmo Vesco (Politecnico di Milano — and IFN-CNR); F. Visentin (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); F. Gucci (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); A. Baserga (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); G. Mattoni (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); E. Torre (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); L. Moretti (Polytechnic University); F. Camargo (Politecnico di Milano, Dipartimento di Fisica, and IFN-CNR); Davide Gatti (Politecnico di Milano — and IFN-CNR); Giulio Cerullo (Politecnico di Milano); Marco Marangoni (Politecnico di Milano);*
- 00:00 AI-powered Refractive Index Retrieval with All-dielectric Colour Metasurfaces  
Invited  
*Trevon Badloe (Pohang University of Science and Technology (POSTECH));*
- 00:00 Deep Learning-driven Diffractive Optics for High-fidelity Extended Depth-of-field Imaging  
Invited  
*Yuzhe Du (Tsinghua University); Liangcai Cao (Tsinghua University);*
- 00:00 Transformation of Confined-space Photonics into Industrial-level Applications  
Invited  
*Qiaoliang Bao (University of Shanghai for Science and Technology);*
- 00:00 Machine-learning-assisted Diffractive Metasurface Sensor for Quantum-enhanced Detection of SARS-CoV-2  
Invited  
*Basudev Nag Chowdhury (IIT Kharagpur); Santanab Majumdar (IIT Kharagpur); Tarun Kanti Bhat-tacharyya (IIT Kharagpur); Pooja Lahiri (IIT Kharagpur); Basudev Lahiri (IIT Kharagpur);*
- 00:00 Glass Fiber Microphone for Acoustic Sensing  
Invited  
*Xiaobei Zhang (Shanghai University);*
- 00:00 Forward and Inverse Design of Displacement-sensitive Metasurface for Arbitrary Intensity-displacement Responses  
Invited  
*Qianbo Lu (Northwestern Polytechnical University);*
- 00:00 Computer Holography via an Ultra-generalized Learning Framework  
Invited  
*Hao Zhang (Henan University of Science and Technology);*
- 00:00 A Laguerre-Gaussian Optical Vortex with an Enlarged Dark Region and the Use of Deep Learning Technologies to Determine Its Parameters  
*Ilya V. Sobolev (Samara National Research University); Elena Sergeevna Kozlova (Samara National Research University & NRC "Kurchatov Institute"); Vladislav Dmitrievich Zaitsev (Samara National Research University);*
- 00:00 Optical Sensing Enabled by Laser-printed Plasmonic Metasurfaces  
Invited  
*Aleksandr A. Kuchmizhak (Institute of Automation and Control Processes, Far Eastern Branch, Russian Academy of Science);*
- 00:00 Resonant Metasurface Chiroptical Sensing: Overcoming Fidelity and Noise Limits  
Invited  
*Ting Mei (Northwestern Polytechnical University); Fengyang Jia (Northwestern Polytechnical University); Qiwei Miao (Northwestern Polytechnical University);*
- 00:00 Nanoporous Metals as Versatile Optical Metasurfaces  
Invited  
*Denis Garoli (Istituto Italiano di Tecnologia);*
- 00:00 AI-Informed Optics at the Diffraction Limit  
Invited  
*Dmitry V. Dyllov (Skolkovo Institute of Science and Technology);*
- 00:00 MetaMizer: An AI Based Inverse Design Pipeline for Dielectric Metasurface  
Invited  
*P. Paithankar (Indian Institute of Technology Kharagpur); P. P. Chakrabarti (Indian Institute of Technology Kharagpur); Shailendra Kumar Varshney (Indian Institute of Technology Kharagpur);*
- 00:00 The Mathematical-physics of Scalar Structured Optical Beams  
Invited  
*Sabino Chavez-Cerda (Instituto Nacional de Astrofisica);*
- 00:00 AI-assisted Broadband Imaging with Metasurfaces  
*Yaoguang Ma (Zhejiang University);*
- 00:00 Mid-infrared Photodetector Array Integrated with Plasmonic Filters for Multispectral Imaging  
*Shiyu Yang (Shanghai Jiao Tong University); Yap-ing Dan (Shanghai Jiao Tong University);*
- 00:00 Cold-programmable Photonic Crystals for Reconfigurable Optical Sensing  
*Matin S. Ashurov (Westlake University); Pavlos G. Savvidis (Westlake University);*

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**Session 2P19a**  
**Non-Hermitian Photonics 2**

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**Wednesday PM, July 29, 2026**

**Room 19 - CR 27**

Organized by Mikhail V. Rybin, Ekaterina E. Maslova,  
Andrey V. Novitsky, Andrey A. Bogdanov

Chaired by Andrey V. Novitsky, Mikhail V. Rybin

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- 00:00 Non-Hermitian Theory for Optical Trapping and Binding  
Invited *Jack Ng (Southern University of Science and Technology);*
- 00:00 Subspace-protected Topological Phases  
Invited *Masatoshi Sato (Kyoto University);*
- 00:00 Non-Hermitian Bimorphic Topological Insulator in a Periodically Driven Photonic System  
*Shuming Zhang (Zhejiang University); Tuo Wan (Zhejiang University); Zhaoju Yang (Zhejiang University);*
- 00:00 Doubly Excited Bound States in the Continuum in Two-dimensional Atomic Lattices  
*Ilya A. Volkov (ITMO University); Mihail I. Petrov (ITMO University);*
- 00:00 Non-Hermitian Physics of Time-varying Nanophotonic Resonators  
*Adrià Canós Valero (University of Graz); S. Gladyshev (University of Graz); D. Globosits (Vienna University of Technology (TU Wien)); Stefan Rotter (Vienna University of Technology (TU Wien)); Egor A. Muljarov (Cardiff University); Thomas Weiss (University of Graz);*
- 00:00 Criticality-enhanced Quantum Sensing in Non-Hermitian Systems  
*Abolfazl Bayat (University of Electronic Science and Technology of China); Chiranjib Mukhopadhyay (University of Electronic Science and Technology of China);*
- 00:00 Designing Non-Hermitian Photonic Lattices for Signal Amplification and Noise Filtering  
*Ioannis Kiropelidis (University of Crete); Konstantinos G. Makris (Vienna University of Technology (TU Wien));*
- 00:00 Asymmetric Third Harmonic Generation in Silicon Metasurfaces  
*Aleksandr I. Musorin (Shenzhen MSU-BIT University); A. A. Nazarenko (Shenzhen MSU-BIT University); Alexander S. Shorokhov (Lomonosov Moscow State University); Daria A. Smirnova (Australian National University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 Hysteretic Self-oscillatory Radiation with Tunable Orbital Angular Momentum  
*Li Zhang (The University of Hong Kong); Yihao Yang (Zhejiang University); Shuang Zhang (The University of Hong Kong); Hongsheng Chen (Zhejiang University);*

- 00:00 Multi-order Exceptional Points and Exponential Sensitivity in Non-Hermitian Photonic Lattices  
Invited *Konstantinos G. Makris (Institute of Electronic Structure and Laser — FORTH);*
- 00:00 Investigating the Topology of Exceptional Points with Photons  
Invited *Kunkun Wang (Anhui University);*

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**Session 2P19b**  
**Topological Nanophotonics 1**

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**Wednesday PM, July 29, 2026**

**Room 19 - CR 27**

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

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- 00:00 Moiré Topological Quasi-particles of Light at Nanoscale  
Invited *Lipeng Wan (Nanchang University); Tianbao Yu (Nanchang University);*
- 00:00 All-dielectric Hybrid Photonic Topological Materials  
Invited *Tianyue Li (The Hong Kong University of Science and Technology);*
- 00:00 Silicon Supermode Photonics for High-capacity Optical Communications  
Invited *Lu Sun (Shanghai Jiao Tong University); Kaile Chen (Shanghai Jiao Tong University); Qi Lu (Shanghai Jiao Tong University); Yikai Su (Shanghai Jiao Tong University);*
- 00:00 Riemann-Silberstein Geometric Phase for High-dimensional Light Manipulation  
*Yuqiong Cheng (City University of Hong Kong); Yuan-Song Zeng (City University of Hong Kong); Wanyue Xiao (City University of Hong Kong); Tong Fu (Shenzhen University); Jiajun Wu (City University of Hong Kong); Geng-Bo Wu (City University of Hong Kong); Din Ping Tsai (City University of Hong Kong); Shubo Wang (City University of Hong Kong);*
- 00:00 Topological Phases in Bilayer Valley Photonic Crystals  
Invited *Ze-Yu Wu (Sun Yat-sen University); Xiao-Dong Chen (Sun Yat-sen University);*
- 00:00 Free Extension of Topological States via Double-zero-index Media  
Invited *Rui Dong (Nanjing Normal University); Changhui Shen (Nanjing University); Changqing Xu (Nanjing Normal University); Yun Lai (Nanjing University); Ce Shang (Aerospace Information Research Institute, Chinese Academy of Sciences);*

00:00 Mitigating Lithography Stitching Losses Using Topological Photonic Crystals in Silicon Photonics  
*Ce Chen (Shanghai Jiao Tong University); Chunxue Wang (Shanghai Jiao Tong University); Pan Hu (Shanghai Jiao Tong University); Lu Sun (Shanghai Jiao Tong University); Yikai Su (Shanghai Jiao Tong University); Xingchen Ji (Shanghai Jiaotong University);*

00:00 Water Wave Manipulation Devices Based on Metamaterials  
*Linkang Han (Xiamen University); Huanyang Chen (Xiamen University);*

00:00 Shot Noise of Photocurrents in Magnetic Quantum Materials  
*Invited Lei Zhang (Shanxi University);*

00:00 Tunable Dual-layer Acoustic Metacage for Efficient Sound Insulation and Transmission  
*Chunhao Li (Nanjing University of Aeronautics and Astronautics); Liting Wang (Nanjing University of Aeronautics and Astronautics); Chuanjie Hu (Nanjing University of Aeronautics and Astronautics); Yangyang Fu (Nanjing University of Aeronautics and Astronautics);*

00:00 Acoustic Vortex Tunneling through Subwavelength Channels with Topological-pair Metasurfaces  
*Liting Wang (Nanjing University of Aeronautics and Astronautics); Xiao Li (Nanjing University of Aeronautics and Astronautics); Chuanjie Hu (Nanjing University of Aeronautics and Astronautics); Yangyang Fu (Nanjing University of Aeronautics and Astronautics);*

00:00 Construction and Response Characteristics Regulation of Perovskite Photodetectors  
*Invited Wei Tian (Soochow University);*

00:00 A Universal Scheme for Lasing and Anti-lasing Modes within Multilayered Conjugate Metamaterials  
*Yue Fei (Nanjing University of Aeronautics and Astronautics); Changdong Chen (Nanjing University of Aeronautics and Astronautics); Yangyang Fu (Nanjing University of Aeronautics and Astronautics);*

00:00 Virtual Exceptional Points in Optical Lossless Bilayer Metasurfaces  
*Invited Changdong Chen (Nanjing University of Aeronautics and Astronautics); Yue Fei (Nanjing University of Aeronautics and Astronautics); Yangyang Fu (Nanjing University of Aeronautics and Astronautics);*

00:00 Revealing the Hidden Dimension of Orbital Angular Momentum Conservation in Parity Metasurfaces  
*Zhanlei Hao (Nanjing University of Information Science & Technology); Yadong Xu (Soochow University); Huanyang Chen (Xiamen University);*

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**Session 2P20a**  
**Metamaterials in Multi-physics**

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**Wednesday PM, July 29, 2026**

**Room 20 - CR 28**

Organized by Huanyang Chen, Yadong Xu

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00:00 Optical Bound States in the Continuum in Metagrating  
*Songsong Li (Chaohu University); Yadong Xu (Soochow University);*

00:00 Acoustic Bound States in the Continuum in Engineered Resonators  
*Yuhang Yin (Shantou University); Qilin Duan (Xiamen University); Huanyang Chen (Xiamen University);*

00:00 Revealing the Anomalous Diffraction Behaviors of Phase-gradient Metagrating from Huygens-Fresnel Principle  
*Cong Wang (Soochow University); Xiejing Sun (Soochow University); Yadong Xu (Soochow University);*

00:00 Generalized Theory of the Parity-reversed Diffraction Effect in Phase Gradient Metasurfaces  
*Mengru Jiang (Soochow University); Cong Wang (Soochow University); Yu Chen (Soochow University); Baoyin Sun (Soochow University); Lei Gao (Suzhou City University); Yangyang Fu (Nanjing University of Aeronautics and Astronautics); Yadong Xu (Soochow University);*

00:00 Observation of Incident-OAM-governed Quantized Rotational Doppler Effect  
*Yu Chen (Soochow University); Yadong Xu (Soochow University);*

00:00 Topological-charge Multiplexed Metasurfaces for Generating Structural Acoustic Field and Remote Dynamic Control  
*Jiaqi Quan (Soochow University); Cong Wang (Soochow University); Yadong Xu (Soochow University);*

00:00 A Metallic-composite Microwave-transparent Electrothermal Film for Highly Efficient Deicing  
*Fang Chen (University of Electronic Science and Technology of China); Haiyan Chen (University of Electronic Science and Technology of China); Xin Yao (University of Electronic Science and Technology of China); Xuejing Xing (University of Electronic Science and Technology of China); Yifei Qin (University of Electronic Science and Technology of China); Haojie Zhang (University of Electronic Science and Technology of China); Yifan Wang (University of Electronic Science and Technology of China);*

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**Session 2P20b**  
**Spoof Plasmonic Devices and Systems**

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**Wednesday PM, July 29, 2026**

**Room 20 - CR 28**

Organized by Jingjing Zhang, Xuanru Zhang

Chaired by Liangliang Liu

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- 00:00 Dispersion-driven Front-door Protection in Phased Array Based on Reconfigurable Spoof Surface Plasmon Polaritons  
*Ling Yun Niu (Xidian University); Ling Yu Wang (Xidian University); Long Li (Xidian University);*
- 00:00 Compact and High-isolation Leaky Wave Antennas Enabled by Odd-mode Spoof Surface Plasmon Polaritons  
*Zi Hua You (Southeast University); Meng Wang (Southeast University); S. T. Sun (Southeast University); Huifeng Ma (Southeast University);*
- 00:00 Single-fiber Buckling Embroidered Metafabric for Wireless Body Area Sensing under Large Deformation  
*Xincheng Yao (Zhejiang University); Liqiao Jing (Zhejiang University); Hongsheng Chen (Zhejiang University); Zuojia Wang (Zhejiang University);*
- 00:00 On-chip Microwave Oscillator Based on Spoof Plasmonic Skyrmions  
*Wan Zhu Wang (Southeast University); Xuanru Zhang (Southeast University);*
- 00:00 Beyond Transition Structures: ESPPs for Designing Ultracompact Waveguide Devices  
Invited  
*Liangliang Liu (Nanjing University of Aeronautics and Astronautics); Hongyi Li (Nanjing University of Aeronautics and Astronautics); Zechen Tian (Nanjing University of Aeronautics and Astronautics); Zhuo Li (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Programmable Nonlinear Plasmonic Metamaterials for On-demand Second-harmonic Generation  
*Hongyi Li (Nanjing University of Aeronautics and Astronautics); Zhuo Li (Nanjing University of Aeronautics and Astronautics);*
- 00:00 A Broadband Nonmagnetic Spoof Plasmonic Circulator Based on Parametric Amplification  
*Yue Cen (Southeast University); Jingjing Zhang (Southeast University);*
- 00:00 High-power Linearly Polarized Supercontinuum Source  
Invited  
*Jiaxin Song (National University of Defense Technology); Bo Li (National University of Defense Technology); Shengping Chen (National University of Defense Technology);*
- 00:00 High Power and High Brightness Fiber Lasers in 950 nm Band  
Invited  
*Tianfu Yao (National University of Defense Technology);*
- 00:00 Experimental Analysis of Transverse Mode Instability Characteristics under Different Linewidths  
Invited  
*Fengyun Li (Laser Fusion Research Center, China Academy of Engineering Physics); Chun Zhang (Laser Fusion Research Center, China Academy of Engineering Physics); Xingchen Jiang (Laser Fusion Research Center, China Academy of Engineering Physics); Qihui Chu (Laser Fusion Research Center, China Academy of Engineering Physics); Yi Shi (Laser Fusion Research Center, China Academy of Engineering Physics); Qiang Shu (Laser Fusion Research Center, China Academy of Engineering Physics); Yuefang Yan (Laser Fusion Research Center, China Academy of Engineering Physics); Rumao Tao (Laser Fusion Research Center, China Academy of Engineering Physics);*
- 00:00 Data-driven Fiber Mode Decomposition  
Invited  
*Min Jiang (National University of Defense Technology Test Center); Yi An (National University of Defense Technology Test Center); Jun Li (National University of Defense Technology);*
- 00:00 2  $\mu\text{m}$  High-power Narrow-linewidth and Single-frequency Fiber Laser  
Invited  
*Qilai Zhao (South China University of Technology); Yuxin Sun (South China University of Technology); Shanhui Xu (South China University of Technology);*

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**Session 2P21a**  
**High Power Fiber Lasers**

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**Wednesday PM, July 29, 2026**

**Room 21 - CR 29**

Organized by Hanshuo Wu, Jiaxin Song

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- 00:00 Temporal Modulation for Mitigating Transverse Mode Instability in High-power Fiber Lasers  
*Haobo Li (National University of Defense Technology); Hanshuo Wu (National University of Defense Technology); Xinyi Ding (National University of Defense Technology); Cheng Yang (National University of Defense Technology); Xiaolin Wang (National University of Defense Technology); Pu Zhou (National University of Defense Technology);*

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**Session 2P21b**  
**Specialty Optical Fiber Devices**

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**Wednesday PM, July 29, 2026**

**Room 21 - CR 29**

Organized by Jianzhong Zhang, Yushi Chu

Chaired by Changgui Lin

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- 00:00 High-sensitivity Bio-inspired Optical Fiber Sensing Technology and Applications  
Invited  
*Qizhen Sun (Huazhong University of Science and Technology);*
- 00:00 Inverse Design of Discrete Raman Amplifiers Using an Invertible Neural Network for Ultra-wideband Optical Transmission Based on Hollow Core Fibers  
Invited  
*Zheyu Wu (Beijing Institute of Technology); Ran Gao (Beijing Institute of Technology); Mingrui Lin (Beijing Institute of Technology);*

- 00:00 Advanced Chalcogenide Glasses and Their Optoelectronic Sensing Applications  
Invited  
*Shiliang Kang (Ningbo University); Shixun Dai (Ningbo University); Changgui Lin (Ningbo University);*
- 00:00 Mid-infrared Supercontinuum Generation Based on Noise-like Pulse Pumping  
*Xing Luo (Ningbo University); Peilong Yang (Ningbo University); Yingying Wang (Ningbo University); Duan-duan Wu (Ningbo University); Peiqing Zhang (Ningbo University); Shixun Dai (Ningbo University);*
- 00:00 Femtosecond Laser Inscribed Compact Fabry-Pérot Interferometers and Their Sensing Application  
Invited  
*Chunying Guan (Harbin Engineering University); Shan Gao (Harbin Engineering University); Tailei Cheng (Harbin Engineering University);*
- 00:00 Flexible Polymer Optical Fiber for Non-invasive Physiological Monitoring  
Invited  
*Rui Min (Beijing Normal University);*
- 00:00 Science and Application of Random Lasers in Polymer Fiber and Liquid Crystal System  
Invited  
*Zhijia Hu (Anhui University);*
- 00:00 Simultaneous Dual-parameter Measurement Based on an Overlapping FBG Array with OFDR  
*Jianshuai Wang (Beijing Jiaotong University); Li Pei (Beijing Jiaotong University); Zhouyi Hu (Beijing Jiaotong University); Peiyao Wang (Beijing Jiaotong University); Chaonan Wang (Beijing Jiaotong University);*

- 00:00 Development of W-band Relativistic Gyrotron with Sub-gigawatt Pulsed Power  
*Vladislav Yur'evich Zaslavsky (Institute of Applied Physics, Russian Academy of Sciences); Nikolai Yu. Peskov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Ilya V. Zheleznov (Institute of Applied Physics, RAS); Ksenia A. Leshcheva (Institute of Applied Physics, RAS); Michael N. Vilkov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Vladimir Nikolaevich Manuilov (Institute of Applied Physics, RAS); Andrey V. Arzhannikov (Budker Institute of Nuclear Physics RAS); D. A. Nikiforov (Budker Institute of Nuclear Physics, Russian Academy of Sciences); A. E. Levichev (Budker Institute of Nuclear Physics, Russian Academy of Sciences); Stanislav L. Sinitsky (Budker Institute of Nuclear Physics Russian Academy of Sciences);*
- 00:00 A Filtering Class F Power Amplifier Based on Multi-mode Resonators  
*Xiaolong Fu (Northwestern Polytechnical University); Xiaojia Zhang (Northwestern Polytechnical University); Lintao Feng (Northwestern Polytechnical University); Jun Ding (Northwestern Polytechnical University); Chen-Jiang Guo (Northwestern Polytechnical University);*
- 00:00 Using Sectioned Slow-wave Structures Formed by 2D-periodic and 1D-periodic Corrugations to Enhance Output Power and Stability of Single-mode Generation in Cherenkov Masers  
*Nikolai Yu. Peskov (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Andrey V. Arzhannikov (Budker Institute of Nuclear Physics RAS); Naum Samuilovich Ginzburg (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Petr V. Kalinin (Budker Institute of Nuclear Physics RAS); Sergey A. Kuznetsov (Budker Institute of Nuclear Physics Russian Academy of Sciences); Denis A. Samtsov (Budker Institute of Nuclear Physics RAS); Evgeny S. Sandalov (Budker Institute of Nuclear Physics RAS); Anastasia A. Savilova (Institute of Applied Physics, Russian Academy of Sciences); Alexander Sergeevich Sergeev (A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Stanislav L. Sinitsky (Budker Institute of Nuclear Physics Russian Academy of Sciences); Vasily D. Stepanov (Budker Institute of Nuclear Physics RAS); Vladislav Yu. Zaslavsky (Institute of Applied Physics, RAS);*
- 00:00 Channel Capacity Calculation in Sub-THz Bands and the Impact of Atmospheric Turbulence  
*Ilya V. Lesnov (Institute of Applied Physics of the RAS); Maria V. Efimova (Institute of Applied Physics of the RAS);*

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**Session 2P22a**

**Poster Session for Best Student Presentation Awards Competition - Part 4**

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**Wednesday PM, July 29, 2026**

**Poster Area**

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**Session 2P22b**

**Poster Session 5**

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**Wednesday PM, July 29, 2026**

**14:00 PM - 18:00 PM**

**Poster Area**

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- 00:00 Optimization of Via Formation in Quartz for Liquid Crystal-based Metaforming Antennas  
*Il-Ji Bae (Korea Electronics Technology Institute); D. K. Jung (Korea Electronics Technology Institute); S. H. Yoon (Korea Electronics Technology Institute); Miyoung Kim (Korea Electronics Technology Institute);*

- 00:00 Statistical Modeling and Characterization of Sea Clutter Based on Range-azimuth Two-dimensional Heterogeneous Characteristics  
*Xiangguang Leng (National University of Defense Technology); Kefeng Ji (National University of Defense Technology); Gangyao Kuang (National University of Defense Technology);*
- 00:00 A Dual-branch Frequency-spatial Network for Polarimetric SAR Image Classification  
*Liangliang Han (Wuhan Institute of Technology); Lei Wang (Wuhan Institute of Technology); Wenqiang Hao (Wuhan Institute of Technology); Rong Gui (Central South University); Shenghui Zhu (Wuhan Institute of Technology);*
- 00:00 Vehicles and Corner Reflector Discrimination by Fusing Multi-dimensional Physical Features of HRRP  
*Yanbo Fan (National Key Laboratory of Scattering and Radiation); Ruixin Lai (National Key Laboratory of Scattering and Radiation); Dandan Gu (Science and Technology on Electromagnetic Scattering Laboratory); Yi Liao (National Key Laboratory of Scattering and Radiation);*
- 00:00 Edge-side Lightweight Modulation Recognition Network Based on Joint Time-frequency Domain and Global Average Pooling  
*Jun Chen (Hainan University); Zhenjia Chen (Hainan University); Jie Ding (Hainan University);*
- 00:00 Nearshore Bathymetry Inversion Based on Swell Characteristics Extracted from SAR Data  
*Lijie Diao (Aerospace Information Research Institute, Chinese Academy of Sciences); Wenjia Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Yawei Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Jinsong Chong (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 Mathematical and Experimental Validation of Zero Substitution in the Bifocusing Method with Incomplete Data  
*Taeyoung Ha (National Institute for Mathematical Sciences); Won-Kwang Park (Kookmin University);*
- 00:00 Lithium Battery Parameter Identification Optimization Based on the Red Billed Blue Magpie Optimization Algorithm  
*Rongyan Liu (Southwest University of Science and Technology); Chunxi Jiang (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Yonghao Lu (Southwest University of Science and Technology);*
- 00:00 Research on Inductive-type Marx Pulse Generator  
*Yuheng Gao (Southwest University of Science and Technology); Li Wu (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Shunqiang Wan (Southwest University of Science and Technology); Haoyu Zhang (Southwest University of Science and Technology); Jingxin Wei (Southwest University of Science and Technology);*
- 00:00 Phase-shift Control Strategy for DAB Converters Applied in Solid-State Transformers  
*Qifeng Wu (Southwest University of Science and Technology); Li Wu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Cheng Chen (Southwest University of Science and Technology); Haoyu Zhang (Southwest University of Science and Technology); Liang Luo (Southwest University of Science and Technology); Hongqiao Chen (Southwest University of Science and Technology);*
- 00:00 Research on Long-distance Carrier Communication for Single-core Cables  
*Jingxin Wei (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Jie Deng (Southwest University of Science and Technology); Zipeng Zhang (Southwest University of Science and Technology); Junfeng Luo (Southwest University of Science and Technology);*
- 00:00 A High-stability, Ultra-low-power Op-amp-less Bandgap Reference with Piecewise Temperature Compensation  
*Huijia Li (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Liangyu Cao (Southwest Jiaotong University);*
- 00:00 A Collaborative Mitigation Method for Single-event Transients in Flash FPGAs  
*Jin Long Ma (Nanjing University of Aeronautics and Astronautics); Xin Chen (Nanjing University of Aeronautics and Astronautics); Zhenji Cao (Tongji University); Mei Song Tong (Tongji University); Zong Guang Yu (The 58th Institute of China Electronics Technology Group Corporation); Dai-Yin Zhu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Derivation and Numerical Validation of a 2D Cylindrical Angular-spectrum Forward Operator for Microwave-induced Thermoacoustic Imaging  
*Xin Shang (Southwest University of Science and Technology); Shuangli Liu (Southwest University of Science and Technology); Fei Tang (Southwest University of Science and Technology);*

- 00:00 Energy-aware Multi-robot Scheduling via Combinatorial Auction and Standby Mechanism  
*Kunle Wang (Southwest University of Science and Technology); Liang Luo (Southwest University of Science and Technology); Zhenhua Quan (Southwest University of Science and Technology); Li Xie (Southwest University of Science and Technology);*
- 00:00 A Fast Prediction Method for Electromagnetic Parameters of Absorbing Honeycomb Structures Based on Cole-cole Dispersion Model and Equivalent Medium Theory  
*Xiaoyi Fu (University of Electronic Science and Technology of China); Xunwang Dang (National Key Laboratory of Scattering and Radiation); Mingjiang Gou (National Key Laboratory of Scattering and Radiation); Zhaoguo Hou (Science and Technology on Electromagnetic Scattering Laboratory); Xiao Long Weng (University of Electronic Science and Technology of China); Wei Luo (University of Electronic Science and Technology of China); Hongcheng Yin (National Key Laboratory of Scattering and Radiation); Xuan Guo (Beijing Institute of Remote Sensing Information);*
- 00:00 Study of the Effect of Magnetoelectric Energy Generation by Harvester  
*Vasilii A. Misilin (Yaroslav-the-Wise Novgorod State University); Alena R. Petrova (Novgorod State University); M. M. Karpov (Novgorod State University); Roman V. Petrov (Novgorod State University);*
- 00:00 Nonideality Compensation for THz SC-FDE Systems Based on a BiTCN-DD-MLP Equalizer  
*Li Da (University of Electronic Science and Technology of China); Lin Huang (University of Electronic Science and Technology of China);*
- 00:00 Comparison of In-house Fabricated Microsphere WGMRs for Kerr OFC Generation  
*Dmitrijs Prigunovs (Riga Technical University); Denis Zurikovs (Riga Technical University); Ints Murans (Riga Technical University); Dilan Ortiz (Riga Technical University); Arvids Sedulis (Riga Technical University); Janis Alnis (University of Latvia); Rihards Murnieks (Riga Technical University); Janis Braunfelds (Riga Technical University); Toms Salgals (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 High Responsivity, Ultra-flexible, Self-driven Solar-blind Fibrous Photoelectrochemical Detector for Seawater Antibiotic Detection  
*Gang Wu (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);*
- 00:00 Peak Power Enhancement in Phased Arrays Using Beat-wave Excitation  
*Jie Peng (Aerospace Information Research Institute, Chinese Academy of Sciences); Dongping Gao (Aerospace Information Research Institute, Chinese Academy of Sciences); Quanju Shi (Aerospace Information Research Institute, Chinese Academy of Sciences); Dengpan Chang (Aerospace Information Research Institute, Chinese Academy of Sciences); Jiawei Wang (Aerospace Information Research Institute, Chinese Academy of Sciences); Lu Tian (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 Research on G-T Performance Optimization and Front-end IC Design for Ku-band Satellite Communication Receivers  
*Xiuqi Lai (Shanghai University);*
- 00:00 Spatio-temporal Theory of Zigzag Gyro-BWO: Transition to Operation at the Second Cyclotron Harmonic  
*Ekaterina M. Novak (A.V. Gaponov-Grekhov Institute of Applied Physics, RAS); Sergey V. Samsonov (A.V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences); Andrei V. Savilov (A.V. Gaponov-Grekhov Institute of Applied Physics, RAS);*
- 00:00 Rapid Surrogate Model Construction for RCS Prediction based on Space Mapping and ELM  
*Tian-Xu Yan (Shanghai Institute of Mechanical and Electrical Engineering); Jiayi Yang (Shanghai Institute of Mechanical and Electrical Engineering); Guotao Jiang (Shanghai Institute of Mechanical and Electrical Engineering); Zeng Yang (National Key Laboratory of Scattering and Radiation); Gewen Yang (Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)); Kaizhi Ruan (Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai));*
- 00:00 3D NMR Forward Modeling Using Finite Element Method with External Field Sources  
*Shuo Hang Sun (Chang'an University); Zhipeng Qi (Chang'an University); Jiawen Ma (Chang'an University); Junshuo Xing (Chang'an University);*
- 00:00 RF Signal Detection Method Based on I/Q Data Differential Absolute Sum Algorithm  
*Hongpeng Chen (Hainan University); Zhenjia Chen (Hainan University); Xiao Zhao (Hainan University); Zhonghao Huang (Hainan University); Wanchao Li (Radio Regulatory Authority Hainan Provincial Industry and Information Technology Department);*

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**Session 3A1a**
**Remote Sensing of Water and Energy Cycles**


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**Thursday AM, July 30, 2026**
**Room 1 - CR 1**

 Organized by Hui Lu, Jiancheng Shi
 

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- 00:00 Transfer Learning to Improve Polarimetric Radar QPE in Diverse Precipitation Regimes  
*Haonan Chen (Colorado State University);*
- 00:00 Development of a New Global-scale High Spatiotemporal Resolution Precipitation Monitoring System for Real-time Condition  
*Dabin Ji (Aerospace Information Research Institute, Chinese Academy of Sciences); Husi Letu (Aerospace Information Research Institute, Chinese Academy of Sciences); Jiancheng Shi (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Multi-frequency Multi-angle Observations of Wet-snow Microwave Emission in the 2025 Altay Campaign and Model Validation  
*Jiayi Du (Zhejiang University); Yuanhao Cao (Zhejiang University); Yiwen Fang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Zhijiao Cao (Zhejiang University); Zhenzhan Wang (National Space Science Center/Center for Space Science and Applied Research, Chinese Academy of Sciences); Shurun Tan (Zhejiang University);*
- 00:00 A Systematic Benchmark of Factor-method Pairings for Passive Microwave Soil Moisture Downscaling Using Two Dense In Situ Networks  
*Jingyao Zheng (Aerospace Information Research Institute, Chinese Academy of Sciences); Tianjie Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Nemesio Rodriguez-Fernandez (CESBIO);*
- 00:00 Thawing and Freezing Dynamics of Tundra Soils Revealed by Multi-frequency Polarimetric Brightness Temperature Observations  
*Konstantin Victorovich Muzalevskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences);*
- 00:00 Inter-calibration of the FY-3 Microwave Radiation Imager Using a Stokes Parameter Stretching Method  
*Yu Bai (Aerospace Information Research Institute, Chinese Academy of Sciences); Tianjie Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences); Zhiqing Peng (Aerospace Information Research Institute, Chinese Academy of Sciences); Ping Tang (Aerospace Information Research Institute, Chinese Academy of Sciences); Jiancheng Shi (National Space Science Center, Chinese Academy of Sciences);*

- 00:00 Fast Full-wave Analysis of Vegetation Optical Depth (VOD) in Row-structured Canopies Using Fast Hybrid Multiple Scattering Theory (FHMSTM)  
*Enes Koc (University of Michigan); Tien-Hao Liao (National Taipei University of Technology); Zhenming Huang (University of Michigan); Leung Tsang (University of Michigan, President of The Electromagnetics Academy);*
- 00:00 Daily Subkilometer Altay Snow Water Equivalent Estimation via Assimilation of Harmonized Landsat Sentinel Fractional Snow Covered Area  
*Yiwen Fang (Zhejiang University/University of Illinois at Urbana-Champaign Institute); Jinmei Pan (National Space Science Center, Chinese Academy of Sciences); Haorui Sun (University of California); Steven A. Margulis (University of California); Chuan Xiong (Southwest Jiaotong University); Jintian Zhou (National Space Science Center, Chinese Academy of Sciences); Yang Lei (Chinese Academy of Sciences, National Space Science Center); Shurun Tan (Zhejiang University);*

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**Session 3A1b**
**Remote Sensing of the Cryosphere and Its Coupling with Atmospheric Processes**


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**Thursday AM, July 30, 2026**
**Room 1 - CR 1**

Organized by Dong Liang, Mingyang Lv

 Chaired by Rui Song
 

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- 00:00 Spatiotemporal Evolution of the Monacobreen Surge Revealed by Pixel-scale Glacier Velocity Time Series  
*Xue Jin (Nanjing University); Duncan J. Quincey (University of Leeds); Mingyang Lv (Nanjing University);*
- 00:00 Advancing Global Observations of Tropospheric Bromine Monoxide (BrO) from TROPOMI: Implications for Cryosphere-Atmosphere Coupling  
*Song Liu (Nanjing University);*
- 00:00 Mechanical Ablation of Hailuoguo Glacier, Southeastern Tibetan Plateau, and Its Contribution to Mass Balance  
*Shuyang Xu (Wenzhou-Kean University);*
- 00:00 Investigating the Spatiotemporal Correlation among Surface Melt, Calving, and Ice Acceleration on Pine Island Glacier  
*Qi Zhu (International Research Center of Big Data for Sustainable Development Goals); Huadong Guo (International Research Center of Big Data for Sustainable Development Goals); Lu Zhang (International Research Center of Big Data for Sustainable Development Goals); Dong Liang (Aerospace Information Research Institute, Chinese Academy of Sciences); Mingyang Lv (Nanjing University);*

- 00:00 A Comprehensive Review of Optically Derived Digital Surface Models: History, Generation Methods, Accuracy Assessment, and Applications  
*Wuhe Li (Nanjing University); Mingyang Lv (Nanjing University); Huadong Guo (International Research Center of Big Data for Sustainable Development Goals); Jianhui Li (Nanjing University); Duncan Quincey (University of Leeds); Hao Liu (Nanjing University); Kun-Shan Chen (Nanjing University); Heming Xianyu (Nanjing University); Xiancai Lu (Nanjing University);*
- 00:00 Constraining Cloud Processes over the Greenland Ice Sheet Using EarthCARE Observations  
*Rui Song (University of Oxford); Colin Dyck (University of Oxford); Roy G. Grainger (University of Oxford);*

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### Session 3A2

#### Inverse Imaging: Sharing Challenges, Solutions, and Cross-domain Perspectives

Thursday AM, July 30, 2026

Room 2 - CR 2

Organized by Yu Zhong, Krishna Agarwal

Chaired by Yu Zhong

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- 00:00 Subspace-Rytov Approximation Inversion Method for an Inhomogeneous Background  
*Tiantian Yin (National University of Singapore); Li Pan (Huawei Singapore Research Centre); Xudong Chen (National University of Singapore);*
- 00:00 On a Phase-space Approach to Linear Imaging with Intensity-only Measurements  
*Invited Davide Santagata (University of Campania "Luigi Vanvitelli"); Raffaele Solimene (University of Campania "Luigi Vanvitelli");*
- 00:00 Practical Challenges in Inverse Scattering for RI Reconstruction with Label-free Coherent Microscopy  
*Invited Yingying Qin (UiT The Arctic University of Norway);*
- 00:00 Four-point Sparse-frequency Network Decomposition for Fast and Ambiguity-reduced Inverse Design of Cascaded Microwave Filters  
*Yizhan Cai (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);*
- 00:00 A Transfer Learning-enhanced Physics-driven Neural Network for Inverse Scattering Imaging with Sparse Measurements  
*Yutong Du (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);*
- 00:00 Computational Imaging in Complex Media  
*Invited Wen Chen (The Hong Kong Polytechnic University);*
- 00:00 Computational Holography with Randomness  
*Invited Ryoichi Horisaki (The University of Tokyo);*

- 00:00 Assessment of Respiratory Air-volume Variation in the Human Thorax Using First-arrival Ultrasound and Electrical Impedance Tomography  
*Ziqi Li (Tsinghua University); Tong Zhang (Tsinghua University); Maokun Li (Tsinghua University); Fan Yang (Tsinghua University); Shenheng Xu (Tsinghua University);*
- 00:00 A Unified Framework for Near-field Power Synthesis in Half-space Environments  
*Giada Maria Battaglia (Università Mediterranea di Reggio Calabria); Mario Del Prete (Università degli Studi della Campania Luigi Vanvitelli); Andrea Francesco Morabito (Università degli Studi Mediterranea di Reggio Calabria); Raffaele Solimene (University of Campania "Luigi Vanvitelli"); Sabrina Zumbo (Università degli Studi Mediterranea di Reggio Calabria); Maria Antonia Maisto (University of Campania);*
- 00:00 Scattered Computational Adaptive Optics (sCAO) for Anisotropic PSF Estimation in Thick Tissues  
*Farhad Niknam (UiT The Arctic University of Norway); Krishna Agarwal (UiT The Arctic University of Norway);*
- 00:00 Inverse Electromagnetic Scattering — Arc of Translation from Microwave Regime to Optical Domain Microscopy  
*Krishna Agarwal (UiT The Arctic University of Norway);*
- 00:00 Illumination Mode Effects in Three-dimensional Inverse Scattering for Label-free Optical Imaging  
*Yingying Qin (UiT The Arctic University of Norway); Yu Zhong (FINIAC Pte Ltd. Singapore); Krishna Agarwal (UiT The Arctic University of Norway);*
- 00:00 Physics-aware Deep Reconstruction for Robust Artifact Removal in Lensless Fiber Imaging  
*Invited Zewen Ma (Tsinghua University); Liangcai Cao (Tsinghua University);*

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### Session 3A3a

#### Advances in Polarimetric and Interferometric SAR

Thursday AM, July 30, 2026

Room 3 - CR 3

Organized by Jun Hu

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- 00:00 Enhancing Landslide Monitoring through High-temporal-resolution 4D Measurements from Multi-source InSAR  
*Wanji Zheng (The University of Hong Kong); Bo Huang (The University of Hong Kong); Jun Hu (Central South University);*

- 00:00 Comparative Study on Construction Methods of Reference Network for SAR Tomography  
*Youjun Wang (National University of Defense Technology); Zhen Dong (National University of Defense Technology (NUDT)); Yucheng Gao (National University of Defense Technology (NUDT)); Xiantao Wang (National University of Defense Technology); Shuaiying Zhang (National University of Defense Technology (NUDT)); Anxi Yu (National University of Defense Technology); Yifei Ji (National University of Defense Technology);*
- 00:00 PolSAR Building Change Detection in Cropland via GAN-based Modal Alignment Enhancement and Mamba Global Modeling  
*Lihuan Tan (Central South University); Rong Gui (Central South University); Jun Hu (Central South University);*
- 00:00 Multi-polarimetric InSAR for Landslide Detection and Near-real-time Deformation Tracking  
*Yaogang Chen (Central South University); Jun Hu (Central South University);*
- 00:00 Polarimetric Phase Linking for Multi-temporal InSAR Phase Optimization Based on Maximum Likelihood Estimation  
*Peng Shen (Wuhan University);*
- 00:00 A Spatial Neighborhood-based Change Detection Method for Soil Moisture Retrieval over Agricultural Fields Using PolSAR Data  
*Qinghua Xie (China University of Geosciences); Wenxin Xue (China University of Geosciences (Wuhan)); Josep David Ballester-Berman (University of Alicante); Xing Peng (China University of Geosciences (Wuhan)); Jinfei Wang (University of Western Ontario); Jiali Shang (Agriculture and Agri-Food Canada); Hai Qiang Fu (Central South University); Jian-Jun Zhu (Central South University);*
- 00:00 Urban Deformation Monitoring Using Polarimetric Interferometric SAR with Sentinel-1 Data  
*Feng Zhao (China University of Mining and Technology); Kesheng Huang (China University of Mining and Technology);*
- 00:00 A Low-cost MIMO-SAR system for Dynamic Deformation Monitoring of Bridges in Greater Bay Area  
*Lin He (Shenzhen University); Bochen Zhang (Shenzhen University);*
- 00:00 Multi-scale Polarimetric Information Enhanced Network for Automatic SAR Target Recognition  
*Rong Xie (Shanghai Jiao Tong University); Nishang Xie (Shanghai Jiao Tong University); Tao Zhang (Shanghai Jiao Tong University); Changchun Pan (Shanghai Jiao Tong University); Feiming Wei (Shanghai Jiao Tong University); Wenxian Yu (Shanghai Jiao Tong University);*
- 00:00 VL-SAE: Vision-language Guided Semantic Autoencoder for Zero-shot SAR Target Recognition  
*Jiajin Li (National University of Defence Technology); Zekang Fan (National University of Defence Technology); Lingjun Zhao (National University of Defence Technology); Siqian Zhang (National University of Defence Technology);*
- 00:00 Enhancing SAR Image Interpretation in Complex Electromagnetic Environments via Multi-Channel STAP  
*Linjie Cai (National University of Defense Technology (NUDT)); Feng He (National University of Defense Technology); Kewei Zhou (National University of Defense Technology);*
- 00:00 Enhancing SAR Classification via Task-driven Diffusion-based Adversarial Data Augmentation  
*Jiyuan Liu (National University of Defense Technology); Jiaxiang Yang (National University of Defense Technology); Wei Wang (National University of Defense Technology); Tao Zhang (Shanghai Jiao Tong University); Hongqi Fan (National University of Defense Technology);*
- 00:00 Few-Shot SAR Target Recognition Using Scattering Center Graph Autoencoders and Physics-Guided Attention  
*Manling Jiang ();*
- 00:00 Physics-aware Structure-guided Soft Gating for Robust Optical-SAR Image Matching  
*Qichen Zhao (National University of Defense Technology); Jiaqi Li (National University of Defense Technology); Yaobing Xiang (National University of Defense Technology); Lin Lei (National University of Defense Technology);*

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**Session 3A3b**
**SAR/PolSAR Image Processing with Advanced Technologies**


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**Thursday AM, July 30, 2026**
**Room 3 - CR 3**

 Organized by Tao Zhang, Sinong Quan
 

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**Session 3A4**
**Advances in Computational Electromagnetics and Its Applications in Geophysics**


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**Thursday AM, July 30, 2026**
**Room 4 - CR 8**

Organized by Dezhi Wang, Yunyun Hu

 Chaired by Dezhi Wang, Yunyun Hu
 

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- 00:00 3D Forward Modeling for DC Resistivity Method Based on Multi-scale Finite Element Algorithm  
*Yanfu Qi (Chang'an University); Yuhui Zhao (Chang'an University);*

- 00:00 A 3D Time-domain Finite-element Forward Modeling of Unexploded Ordnance Responses for the Semi-airborne Transient Electromagnetic Method  
*Yinfeng Wang (Jilin University); Bo Zhang (Jilin University);*
- 00:00 A Reparameterization-based Method for 2D MT Inversion: An Analysis of the Implicit Preconditioning Mechanism  
*Haikuo Li (Jilin University); Yunhe Liu (Jilin University); Zhiyuan Ke (Jilin University); Changchun Yin (Jilin University);*
- 00:00 Research Progress in Deep Electromagnetic Induction Sounding  
*Shiwen Li (Jilin University); Aihua Weng (Jilin University); Junhao Guo (Jilin University);*
- 00:00 Multi-frequency Electromagnetic Forward Modeling Based on Spectral Element Method for Small-scale Targets in Shallow Water  
*Xin Huang (Yangtze University); Shucong Cui (Yangtze University); Xiaoyue Cao (Yangtze University); Beirong Liu (Yangtze University); Liangjun Yan (Yangtze University);*
- 00:00 High-order Spectral Element Method for 3D Magnetotelluric Modeling  
*Jiao Zhu (China University of Mining and Technology); Octavio Castillo-Reyes (Universitat Politècnica de Catalunya (UPC)); Haiyu Wang (China University of Mining and Technology); Jiaqi Zhang (China University of Mining and Technology);*
- 00:00 Efficient and High-precision Finite Element Simulation Techniques for Geophysical Electromagnetic Methods  
*Changkai Qiu (Institute of Geology and Geophysics, Chinese Academy of Sciences);*
- 00:00 Fast Electromagnetic Scattering Simulation for Multi-transmitter Multi-receiver Systems Using Randomized Matrix Approximation  
*Dezhi Wang (Ningbo Institute of Digital Twin, Eastern Institute of Technology);*
- 00:00 Study on the Mechanism of Marine Magnetotellurics Based on Electromagnetic Wave Propagation Theory  
*Guihang Shao (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Yuguo Li (Ocean University of China); Jie Lu (Yangtze University); Tianyi Dai (Ocean University of China); Jiaqi Ge (Aerospace Information Technology University);*
- 00:00 Application of the Opposing Coils Transient Electromagnetic Method in Gold Mine Goaf Area  
*Guihang Shao (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Song Gao (Shandong Airport Management Group Yantai International Airport CO., Ltd.); Xinglong Huang (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Hui Zhang (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Yu Song (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); De-long Tian (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Li Cao (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Liang Ru (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Changyong Lu (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Yongjun Wang (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Guodong Cao (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Qidong Yang (Shandong Provincial Research Institute of Coal Geology Planning and Exploration); Yubao Shao (Shandong Provincial Research Institute of Coal Geology Planning and Exploration);*
- 00:00 A Physics-constrained Neural Network for Electromagnetic Inverse Scattering Imaging  
*Wei Yang (Tongji University); Yunyun Hu (Tongji University); Qing He (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 A Scalable 3-D Parallel Inversion Framework for Multi-source CSEM Data  
*Jian Li (Southwest Jiaotong University); Rongwen Guo (Central South University); Yasuo Ogawa (Tohoku University); Jian-Xin Liu (Central South University);*
- 00:00 Efficient Adjoint-based Sensitivity Approximation for Invited 2D Marine Controlled-source EM Inversion  
*Gang Li (Zhejiang University); Yutao Liu (Tangshan University); Zhenhuan Xu (Taiyuan University of Technology); Octavio Castillo-Reyes (Universitat Politècnica de Catalunya (UPC));*

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### Session 3A5a

#### Advanced Optical and Digital Signal Processing in Optical Communication Networks 2

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Thursday AM, July 30, 2026

Room 5 - CR 9

Organized by Feng Wen, Mingming Tan, Tianhua Xu

Chaired by Feng Wen

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- 00:00 Integrated Sensing and Communication System with Invited High Spatial Resolution  
*Zhiyong Zhao (Huazhong University of Science and Technology (HUST));*

00:00 Feasibility of High Radix Magneto-optical Switch

Invited

*Jinlong Wei (Peng Cheng Laboratory);*

00:00 Advanced SMART Techniques for the Hollow-core Fiber Submarine ISAC

Invited

*Lin Sun (Soochow University);*

00:00 Recent Progress in Mid-wave Infrared Free Space Optical Communications

Invited

*Xiaodan Pang (Zhejiang University); Zhidong Lyu (Zhejiang University); Yanting Sun (KTH Royal Institute of Technology); Richard Schatz (RISE Research Institutes of Sweden); Lu Zhang (Zhejiang University); Baile Chen (ShanghaiTech University); Xianbin Yu (Zhejiang University); Oskars Ozolins (Riga Technical University, Latvian Academy of Sciences);*

00:00 Low-complex Crosstalk Compensation and Parameter Monitoring for Mode-division Multiplexing Systems

Invited

*Feng Wen (University of Electronic Science and Technology of China); Tianfeng Zhao (University of Electronic Science and Technology of China); Bianxia Feng (University of Electronic Science and Technology of China);*

00:00 High-performance Quantum Key Distribution Network with Integrated Photonics

Invited

*Fang-Xiang Wang (University of Science and Technology of China); Guo-Wei Zhang (University of Science and Technology of China); Sheng-Teng Zheng (University of Science and Technology of China); Wei Chen (University of Science and Technology of China);*

00:00 Design of Ultra-narrowband Bandpass Filter with Open-circuited Coaxial Half-wavelength Resonators

*Yongjie Liu (Shanghai Radio Equipment Research Institute); Mingliang Li (Shanghai Radio Equipment Research Institute); Jianye Bao (Yun Micro Electronics Ltd); Yin Liu (Yun Micro Electronics Ltd);*

00:00 Planar Baluns for mm-Wave Applications

*Taiyu Ju (University of Glasgow); Huihua Cheng (University of Glasgow); Afesomah Ofiare (University of Glasgow); Chong Li (University of Glasgow);*

00:00 Rotary Multi-cavity Polygonal Haloscope for High Frequency Dark Matter Axion Detection

*Alejandro Diaz-Morcillo (Universitat Politècnica de Cartagena); José María García-Barceló (Max Planck Institut für Physik); Jose Ramón Navarro Madrid (Technical University of Cartagena);*

00:00 GaN Technologies as a Game Changer for High-performance RF Front-Ends: A Focus on Robust Receivers

*Jean Guy Tartarin (Université de Toulouse); Damien Saugnon (LAAS-CNRS); B. Pinault (Université de Toulouse); B. Berthelot (Université de Toulouse);*

00:00 Key Technologies of Terahertz Power Combining Technique

*Yong Zhang (University of Electronic Science and Technology of China); Yiming Zhang (University of Electronic Science and Technology of China);*

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### Session 3A5b

#### Microwave and Millimeter Wave Circuits and Devices, CAD

Thursday AM, July 30, 2026

Room 5 - CR 9

Organized by Debendra Kumar Panda

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00:00 W-band Suspended Double-layer Ridged Loaded Microstrip Meander Line Slow-wave Structure

*Xing Liu (University of Electronic Science and Technology of China); Zhan-Liang Wang (University of Electronic Science and Technology of China); Yang Dong (University of Electronic Science and Technology of China); Shaomeng Wang (University of Electronic Science and Technology of China); Yuan Zheng (University of Electronic Science and Technology of China); Yubin Gong (University of Electronic Science and Technology of China);*

00:00 Design and Modeling of an Electromagnetic Power Distribution Network for an Array of Eight Slot Antennas

*Julio Cesar Lopez Flores (Instituto Politécnico Nacional); Jorge Roberto Sosa-Pedroza (Instituto Politécnico Nacional); Fabiola Martínez-Zúñiga (Instituto Politécnico Nacional);*

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### Session 3A6a

#### Multiphysics Integrity Analysis and Simulation of Integrated Microsystems

Thursday AM, July 30, 2026

Room 6 - CR 10

Organized by Wen-Sheng Zhao, Hanzhi Ma

Chaired by Wen-Sheng Zhao, Hanzhi Ma

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00:00 Signal Integrity-based Improved Training and Inference Scheme for Memristor Crossbar Arrays

Invited

*Hanzhi Ma (Zhejiang University); Jiarui Qiu (Zhejiang University); Ye Shi (Zhejiang University); Boyu Peng (Zhejiang University); Xiaolei Zhu (Zhejiang University); Wenchao Chen (Zhejiang University); Da Li (Zhejiang University); Erping Li (Zhejiang University);*

00:00 Equivalent Circuit Fine-tuning: Accelerating IC Power Distribution Network Optimization by Orders of Magnitude

*Ling Zhang (Zhejiang University); Li Jiang (Zhejiang University); Erping Li (Zhejiang University);*

00:00 A General Framework for Electromagnetic Modelling Based on Equivalence Theorem

Invited

*Shunchuan Yang (Beihang University);*

- 00:00 Measurement-driven Multiphysics Analysis of Low-frequency Magnetic Interference in Integrated Microsystems  
*Han Han (Zhejiang University); Da Li (Zhejiang University);*
- 00:00 Electro-thermal Co-simulation of 2D Material-based Optoelectronic Devices Using a High-order Finite Element Method  
*Yan-Nan Xu (Hangzhou Dianzi University); Jia-Hui Zhou (Hangzhou Dianzi University); Qi Qiang Liu (Hangzhou Dianzi University); Wen-Sheng Zhao (Hangzhou Dianzi University);*
- 00:00 Thermo-mechanical Integrity Design of Integrated Power Module Packaging  
*Wenhao Li (Hangzhou Dianzi University); Da-Wei Wang (Hangzhou Dianzi University); Wen-sheng Zhao (Hangzhou Dianzi University);*
- 00:00 The Influence of Circuit Interference on Power Devices in Power Converter Circuits  
Invited *Jun Hu (Zhejiang University); Hao Xie (Hangzhou City University);*
- 00:00 Exploring the BiI<sub>3</sub>/GaSe Heterostructure for Sustainable Hydrogen Production under Biaxial Strain  
*Zhonghui Chen (Zhejiang University); Jie Zhao (Jiangsu JITRI Applied Spectroscopy Technology Institute Co., Ltd.); Nayyar Abbas Shah (Zhejiang University);*
- 00:00 Active Metasurfaces for THz All-optical Computational Spectrometer and Single-pixel Imaging  
Invited *Longqing Cong (Southern University of Science and Technology);*
- 00:00 Programmable Terahertz Grafted Vortex Interference Based on Patterned Transparent Electrodes and Liquid Crystal Anisotropy-induced Chiral Field  
Invited *Fei Fan (Nankai University);*
- 00:00 Optically Programmable and Ultrafast Terahertz Manipulation via Nonlinear Metasurfaces  
Invited *Xueqian Zhang (Tianjin University); Li Niu (Tianjin University); Xi Feng (Tianjin University); Qingwei Wang (Tianjin University); Haidi Qiu (Tianjin University); Quan Xu (Tianjin University); Jiaguang Han (Tianjin University);*
- 00:00 Optically Programmable GST Metasurface for Non-volatile, Broadband, and High-resolution Terahertz Wavefront Control  
*Guanxuan Guo (Tianjin University); Yisheng Dong (Tianjin University); Xueqian Zhang (Tianjin University); Zhen Tian (Tianjin University); Jiaguang Han (Tianjin University);*
- 00:00 A Composite Metasurface for Microwave Transmission and Infrared Focusing  
Invited *Xin Wang (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology); Yuxiang Wang (Harbin Institute of Technology); Yueyi Yuan (Harbin Institute of Technology);*

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**Session 3A6b**

**Acoustic-actuated Multiferroic Resonators and Emerging Applications**

**Thursday AM, July 30, 2026**

**Room 6 - CR 10**

Organized by Lingnan Song, Liang Hu

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- 00:00 Study of Spatial Field Distribution and Conversion Efficiency in Self-mixing Multiferroic Antennas for Fully Passive Bio-sensing  
*Qiyuan Lu (Beihang University); S. Fu (Beihang University); Lingnan Song (Beihang University); Donglin Su (Beihang University);*
- 00:00 Reconfigurable  $Sb_2Se_3$ -based Metasurfaces for All-optical Fourier Filtering  
*Vyacheslav V. Yushkov (Lomonosov Moscow State University); Alexander S. Shorokhov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);*
- 00:00 Programmable and Intelligent VO<sub>2</sub>-based Terahertz Metasurfaces for Adaptive Beam Steering  
Invited *Jingbo Wu (Nanjing University);*
- 00:00 Reconfigurable Terahertz Multifunctional Metasurface Devices  
Invited *Quanlong Yang (Central South University); Lingli Ba (Central South University); Junliang Yang (Central South University);*

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**Session 3A8**

**Reconfigurable and Programmable Metasurfaces: Physics and Applications 1**

**Thursday AM, July 30, 2026**

**Room 8 - CR 11**

Organized by Jinhui Shi, Chunmei Ouyang, Wanying Liu

Chaired by Jinhui Shi

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- 00:00 Phase Modification of GSST Thin Films under Optical Irradiation  
*E. Menshikov (ITMO University); A. Babich (National Research University of Electronic Technology); Petr Ivanovich Lazarenko (National Research University of Electronic Technology); D. A. Guryev (Prokhorov General Physics Institute of the Russian Academy of Sciences); V. A. Kamynin (Prokhorov General Physics Institute of the Russian Academy of Sciences); Alexey Yu. Kokhanovskiy (ITMO University);*
- 00:00 Active Folded Bound States in the Continuum for Reconfigurable Coherent Perfect Absorption  
Invited *Kebin Fan (Nanjing University);*

- 00:00 Full-bandwidth Power Enhancement by Meta-atom-assisted PCA  
*Yangfan Gu (Tianjin University); Donglin Sun (Tianjin University); Kemeng Wang (Tianjin University); Cong Cheng (Tianjin University); Youwen An (Tianjin University); Jianqiang Gu (Tianjin University); Jiaguang Han (Tianjin University);*
- 00:00 Reconfigurable Terahertz Surface Plasmon Wavefront Control Using GST Metasurfaces  
*Quan Li (Tianjin University of Technology and Education); Guanghong Xu (Tianjin University of Technology and Education); Yisheng Dong (Tianjin University); Quan Xu (Tianjin University); Shuang Wang (Tianjin University); Xueqian Zhang (Tianjin University);*

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**Session 3A9**

**Functional Acoustic Metamaterials and Topological Acoustics**

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**Thursday AM, July 30, 2026**

**Room 9 - CR 12**

Organized by Yifan Zhu, Haiyan Fan

Chaired by Yifan Zhu, Haiyan Fan

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- 00:00 Non-Hermitian Topological Transport  
 Invited *He Gao (Nanjing University);*
- 00:00 High-density Energy Harvesting from Multi-coupled Acoustic Metamaterial  
*Xinzong Wang (Southeast University); Yifan Zhu (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Acoustic Phase Holographic Imaging Based on Amplitude-phase Coupled Modulation  
*Xiao Guo (Southeast University); Yifan Zhu (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Research on the Dimensional Reduction Mapping of Type-II Higher-order Topological Insulators  
*Yuan Liu (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Source-integrated Acoustic Metasurfaces for Radiation Control  
 Invited *Tuo Liu (Institute of Acoustics, Chinese Academy of Sciences);*
- 00:00 Multibranch Elastic Bound States in the Continuum of Lamb Waveguide  
*Shuowei An (Northwestern Polytechnical University);*

- 00:00 Four-channel Amplitude-phase-janus-encrypted Acoustic Meta-hologram  
*Haohan Zeng (Southeast University); Zhenyu He (Southeast University); Tianxiang Zhang (Southeast University); Xiao Guo (Southeast University); Xinghao Hu (Southeast University); Youyu Mo (Southeast University); Tingting Li (Southeast University); Feilong Mao (Southeast University); Haiyan Fan (Southeast University); Xudong Fan (Nanjing University of Science and Technology); Wei Wei Kan (Nanjing University); Yifan Zhu (Southeast University); Hui Zhang (Southeast University); Guodong Yin (Southeast University); Badreddine Assouar (Université de Lorraine);*
- 00:00 Emergence of Chiral Landau Levels in Underwater Acoustic System  
*Jiao Shen (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Underwater Acoustic Directional Communication and Continuous Beam Control Achieved by Topological Valley-polarized Edge States  
*Cheng Lin (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Prediction and Reinforcement of Fracture-prone Regions in Disordered Mechanical Metamaterials  
 Invited *Baizhan Xia (Hunan University);*
- 00:00 Trapped State at a Dislocation in Scaled-coupling Structure  
*Yangkai Liu (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);*
- 00:00 Multi-dimensional Acoustic Metamaterials with Topological States of Different Orders and Multidirectional Waveguiding Capabilities  
 Invited *Zhenyu Chen (Southeast University); Shang Chang (Southeast University); Guifeng Wang (City University of Hong Kong);*
- 00:00 Space-rotation and Source-addressing Multiplexed Acoustic Metasurfaces for Multi-channel Acoustic Holographic Display  
*Lilong Li (Hefei University of Technology); Bingyi Liu (Hefei University of Technology);*

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**Session 3A10**

**Optical Manipulation and Its Applications 1**

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**Thursday AM, July 30, 2026**

**Room 10 - CR 13**

Organized by Jack Ng, Jun Chen, Xiao Li

Chaired by Jack Ng, Jun Chen

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- 00:00 Structureless Excitation and Dynamic Manipulation of Holographic Optical Surface-wave Tweezers  
 Invited *Changjun Min (Shenzhen University);*
- 00:00 Optical Manipulations: from Non-Hermitian Physics to Multi-degree-of-freedom Control  
 Invited *Xiao Li (The Hong Kong University of Science and Technology);*

- 00:00 High-throughput Flexible On-chip Optical Tweezers  
Invited  
*Hongbao Xin (Jinan University);*
- 00:00 Optical Forces and Torques in Unconventional Systems:  
Invited From Moving Media to Polarization Singularities and  
Exceptional Points  
*Shubo Wang (City University of Hong Kong);*
- 00:00 Probing Non-Hermitian Eigenmodal Structures from  
Invited Trajectory-resolved Measurements in Levitodynamics  
*Han Cai (Zhejiang University);*
- 00:00 Exploiting Optical Lateral Forces in Optical Tweezers  
Invited  
*Yuzhi Shi (Tongji University (TJU));*
- 00:00 Optomechanical Manipulation of Resonant Nanoparti-  
cles by Directional Excitation of Surface Plasmon Po-  
laritons  
*Semyon Sergeevich Borodulin (ITMO University); Natalia Kostina (ITMO University Lomonosov); Mikhail I. Petrov (ITMO University);*
- 00:00 Go beyond the Diffraction Limit for the Manipulation of  
Nano-objects  
*Quanbo Jiang (Université de Technologie de Troyes);*
- 00:00 Generalized Electromagnetic Stress Tensor Theory  
Based on Microscopic-macroscopic Correlation: Beyond  
Traditional Forms  
*Liyong Cui (Changsha University of Science & Technology); Neng Wang (Shenzhen University);*
- 00:00 Magnetic Doping-induced Second-order and First-order  
Topological Phase Transition in the Photonic Alloy  
*Xianbin Wu (Shanxi University); Lei Zhang (Shanxi University); Jun Chen (Shanxi University);*
- 00:00 Symmetry-induced Suppression of Exceptional Points in  
Optical and Acoustic Binding  
*Xixi Zhang (Southern University of Science and Technology); Jack Ng (Southern University of Science and Technology);*
- 00:00 Goos-Hänchen Shift of Symmetric-broken Meta-grating  
with Bound States in the Continuum  
*Ma Luo (Guangdong Polytechnic Normal University);*
- 00:00 High-efficiency Active Membrane Metasurfaces with Ex-  
Invited tended Kerker's Condition  
*Longqing Cong (Southern University of Science and Technology);*
- 00:00 Dispersionless Photonic and Polaritonic Flatbands with  
Invited Conserved Q Factors  
*Xia Zhang (Northeastern University);*
- 00:00 Optically Tuneable Nonlinear Resonant Metasurfaces  
Invited and Nanostructures  
*Lei Xu (Nottingham Trent University);*
- 00:00 Chiral Emission with Bound States in the Continuum  
Invited on the Verge of the Light Cone  
*Dmitrii Gromyko (Singapore University of Technology and Design (SUTD)); Cheng-Wei Qiu (National University of Singapore); Kirill L. Koshelev (Australian National University); Lin Wu (Singapore University of Technology and Design (SUTD));*
- 00:00 Dynamic Control High-efficiency Vortex Beams with  
Skyrmion Textures through Bilayer Metasurface  
*Letian Meng (Shanghai Jiao Tong University); Guanjie Zhang (Shanghai Jiao Tong University); Xinghong Chen (Shanghai Jiao Tong University); Lichang Liu (Shanghai Jiao Tong University); Yifei Mao (Shanghai Jiao Tong University);*
- 00:00 Bound States in the Continuum and Coherent Perfect  
Absorption in Bimodal Fabry-Pérot Interferometers  
*Dmitry A. Bykov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Evgeni A. Bezu (Image Processing Systems Institute, NRC "Kurchatov Institute"); A. A. Mingazov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Artem I. Kashapov (Image Processing Systems Institute, NRC "Kurchatov Institute"); Leonid L. Doskolovich (Image Processing Systems Institute, NRC "Kurchatov Institute");*

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**Session 3A11**
**Bound States in the Continuum-fundamentals  
and Applications 1**


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**Thursday AM, July 30, 2026**
**Room 11 - CR 15**

Organized by Lujun Huang, Jiajun Wang

 Chaired by Lujun Huang, Jiajun Wang
 

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- 00:00 Tunable Bound States in the Continuum Beyond Lattice  
Invited Design  
*Yan Meng (Southern University of Science and Technology); Qing-An Tu (Southern University of Science and Technology); Maohua Gong (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);*
- 00:00 Engineering Dispersion in Meta-lenses: From Broadband  
Invited Achromatic Imaging to Spectral-selective Focusing  
*Mu Ku Chen (City University of Hong Kong);*
- 00:00 Momentum-mismatch-driven Bound States in the Con-  
Invited tinuum in Meta-gratings  
*Feng Wu (Guangdong Polytechnic Normal University); Shuyuan Xiao (Nanchang University);*

- 00:00 Flatbands from Topological Charge Fractionalization in Anisotropic van der Waals Metasurfaces  
*Connor Heimig (Ludwig-Maximilians-University of Munich); Thomas Weber (Ludwig-Maximilians-Universität München); Cristina Cruciano (Politecnico di Milano); Armando Genco (Politecnico di Milano); Thomas Possmayer (Ludwig-Maximilians-University of Munich); Luca Sortino (Ludwig-Maximilians-Universität München); Gianluca Valentini (Politecnico di Milano); Cristian Manzoni (CNR-IFN); Maxim V. Gorkunov (National University of Science and Technology MISiS); Giulio Cerullo (Politecnico di Milano); Alexander Antonov (Ludwig-Maximilians-University of Munich); Andreas Tittl (Ludwig-Maximilians-Universität München);*
- 00:00 Non-Hermitian Control in Nonlocal BIC Metasurfaces and Its Applications  
*Kenren Wang (Sichuan University); Wei Wang (Sichuan University);*
- 00:00 Static Hybrid Quantum Nodes for Deterministic On-chip Quantum Information Processing  
*Zhaohua Tian (Zhejiang Sci-Tech University);*
- 00:00 Scanning-exciton Optical Nanoscopy Using a Single Quantum Dot  
*Zhiyuan Wang (Taiyuan University of Technology);*
- 00:00 On-chip Quantum Interference of Indistinguishable Single Photons from Integrated Independent Molecules  
*Tailin Huang (Huazhong University of Science and Technology); Miaomiao Xu (Huazhong University of Science and Technology); Wei Jin (Huazhong University of Science and Technology); Weixi Liu (Zhejiang University); Yixuan Chi (Huazhong University of Science and Technology); Jianwei Tang (Huazhong University of Science and Technology); Peng-Long Ren (Huazhong University of Science and Technology); Shangming Wei (Huazhong University of Science and Technology); Zhengxuan Bai (Huazhong University of Science and Technology); Yaocheng Shi (Zhejiang University); Xuewen Chen (Huazhong University of Science and Technology);*

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**Session 3A12**
**Nanophotonics with Quantum Emitters**


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**Thursday AM, July 30, 2026**
**Room 12 - CR 16**

Organized by Jianwei Tang

 Chaired by Jianwei Tang

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- 00:00 Resonance Fluorescence of a Strongly Driven Two-level System with Dynamically Modulated Frequency  
 Invited *Shuo Sun (University of Colorado Boulder);*
- 00:00 Hybrid Integrated Quantum Photonic Devices and Chips  
 Invited *Jiaxiang Zhang (Shanghai Institute of Microsystems and Information Technology (SIMIT), Chinese Academy of Sciences);*
- 00:00 Spin Generation in Coupled Emitter-nanostructure Systems  
 Invited *Mark Sadgrove (Tokyo University of Science);*
- 00:00 Ultrafast Electron and Spin Dynamics in Perovskite Nanocrystals  
 Invited *Linjie Dai (Peking University);*
- 00:00 Efficient Two-photon Emission from a Quantum Dot  
 Invited *Bang Wu (Beijing Academy of Quantum Information Sciences);*
- 00:00 Aromatic Molecular Emitters in a Hexagonal Boron-nitride Stack  
 Invited *Tianyu Fang (University of Bonn); Ricardo Gioia Alvarez (University of Bonn); Babak Behjati (University of Bonn); Moritz Scharfstadt (University of Bonn); Noah Henseler (University of Bonn); Andrea Bergschneider (University of Bonn); Stefan Linden (University of Bonn); Christian Schafer (Technical University of Vienna); Daqing Wang (University of Bonn);*

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**Session 3A13a**
**Frontiers at the Nexus of Quantum Computing and Artificial Intelligence**


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**Thursday AM, July 30, 2026**
**Room 13 - CR 17**

Organized by Yun Shang

 Chaired by Yun Shang

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- 00:00 Towards Scalable Fault-tolerant Quantum Computing: Real-time Neural Decoding and System Architecture  
 Invited *Jianxin Chen (Tsinghua University);*
- 00:00 Exponential Quantum Advantages for Practical Non-Hermitian Eigenproblems  
 Invited *Xiao-Ming Zhang (South China Normal University); Yukun Zhang (Peking University); Wenhao He (Massachusetts Institute of Technology); Xiao Yuan (Peking University);*
- 00:00 On the DQC1-completeness of Normalized Trace Estimation  
 Invited *Zhengfeng Ji (Tsinghua University); Tongyang Li (Peking University); Changpeng Shao (Academy of Mathematics and Systems Science, Chinese Academy of Sciences); Xinzhao Wang (Peking University); Yuxin Zhang (Academy of Mathematics and Systems Science, Chinese Academy of Sciences);*

00:00 Power and Limitations of Distributed Quantum State  
Invited Purification

*Benchi Zhao (The University of Hong Kong); Yu-Ao Chen (Hong Kong University of Science and Technology (Guangzhou)); Xuanqiang Zhao (The University of Hong Kong); Chengkai Zhu (Hong Kong University of Science and Technology (Guangzhou)); Giulio Chiribella (The University of Hong Kong); Xin Wang (Hong Kong University of Science and Technology (Guangzhou));*

00:00 Near-optimal Simultaneous Estimation of Quantum  
Invited State Moments

*Xiao Shi (The Hong Kong University of Science and Technology (Guangzhou)); Jiyu Jiang (The Hong Kong University of Science and Technology (Guangzhou)); Xian Wu (The Hong Kong University of Science and Technology (Guangzhou)); Jingu Xie (The Hong Kong University of Science and Technology (Guangzhou)); Hongshun Yao (The Hong Kong University of Science and Technology (Guangzhou)); Xin Wang (Hong Kong University of Science and Technology (Guangzhou));*

00:00 A Hybrid Quantum Walk Model Unifying Discrete and  
Continuous Quantum Walks

*Tianen Chen (Institute of Mathematics, Academy of Mathematics and Systems Science, Chinese Academy of Sciences); Yun Shang (Institute of Mathematics, Academy of Mathematics and Systems Science, Chinese Academy of Sciences);*

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### Session 3A13b

#### Quantum Information Processing and Devices 2

Thursday AM, July 30, 2026

Room 13 - CR 17

Organized by Guangwei Deng, Shihai Wei, Haizhi Song

Chaired by Haizhi Song

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00:00 Recent Progress of Quantum Secure Direct Communica-  
Invited tion

*Min Wang (Beijing Academy of Quantum Information Sciences);*

00:00 Chip-integrated Quantum Signature Network over  
Invited 200 km

*Yongqiang Du (Guangxi University); Kejin Wei (Guangxi University);*

00:00 Non Local Wavefront Correction: From Quantum to  
Invited Classical to Computational

*Shuai Sun (National University of Defense Technology);*

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### Session 3A14

#### Infrared and Terahertz Physics, Devices, and Technologies 1 & 2

Thursday AM, July 30, 2026

Room 14 - VIP R5

Organized by Chuantao Zheng, Su Xu

Chaired by Qun Ren

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00:00 Terahertz Multidimensional Surface Wave Manipulation  
Based on Programmable Metadevices

*Yiming Wang (Nankai University); Fei Fan (Nankai University);*

00:00 Optoelectronic Germanium-based Heterojunctions for  
Invited Near-infrared Photodetection and Terahertz Modulation

*Dainan Zhang (University of Electronic Science and Technology of China);*

00:00 Mid-infrared Lasing in HgCdTe Quantum Well Het-  
Invited erostructures under Different Regimes of Optical Pumping

*Vladimir V. Rumyantsev (Institute for Physics of Microstructures of RAS); K. A. Mazhukina (Institute for Physics of Microstructures of RAS); Vladimir V. Utochkin (Institute for Physics of Microstructures RAS); Alexander A. Dubinov (Institute for Physics of Microstructures of RAS); V. Ya. Aleshkin (Institute for Physics of Microstructures of RAS); A. A. Yantser (Institute for Physics of Microstructures of RAS); M. A. Fadeev (Institute for Physics of Microstructures of RAS); A. A. Razova (Institute for Physics of Microstructures of RAS); Nikolay N. Mikhailov (A. V. Rzhanov Institute of Semiconductor Physics of SB RAS); Sergey V. Morozov (Institute for Physics of Microstructures, Russian Academy of Sciences);*

00:00 Chemically Synthesized Barium Salts/Polymer compos-  
Invited ites for Passive Mid-infrared Radiative Cooling Applications

*Kien Wen Sun (National Yang Ming Chiao Tung University);*

00:00 Investigating the Theoretical Noise-bandwidth Limits of  
Invited Near-Terahertz Superconducting Heterodyne Mixers for Up-coming Far-infrared Space Satellite Missions

*Boon Kok Tan (University of Oxford); Jee-Ho Kim (University of Oxford); Andrey Baryshev (University of Groningen); Faouzi Boussaha (Observatoire de Paris);*

00:00 Multi-resonant Metasurface for Advanced Terahertz  
Invited Sensing

*Quanlong Yang (Central South University); Yapeng Dou (Tianjin University); Ying Zhang (Yunnan Normal University); Jianguang Han (Tianjin University);*

00:00 High-efficiency Active Membrane Metasurfaces

Invited

*Junxing Fan (Southern University of Science and Technology); Ye Zhou (Shanghai Jiao Tong University); Zhanqiang Xue (Southern University of Science and Technology); Guizhen Xu (Southern University of Science and Technology); Junliang Chen (Southern University of Science and Technology); Hongyang Xing (Southern University of Science and Technology); Longqing Cong (Southern University of Science and Technology);*

00:00 Hardware-efficient Real-time DSP: Enabling Long-haul Photon-assisted Terahertz Transmission

Invited

*Long Zhang (Purple Mountain Laboratories); Xin Xu (Southeast University); Bingchang Hua (Purple Mountain Laboratories); Yuancheng Cai (Purple Mountain Laboratories); Jiao Zhang (Purple Mountain Laboratories); Mingzheng Lei (Purple Mountain Laboratories); Yunwu Wang (Purple Mountain Laboratories); Xingyu Chen (Purple Mountain Laboratories); Min Zhu (Purple Mountain Laboratories); Jianjun Yu (Purple Mountain Laboratories);*

00:00 Robust Intrinsic Chirality Supported by off- $\Gamma$  BICs and Topological Charge Abrupt Change Induced by Topological Phase Transition

Invited

*Chunying Guan (Harbin Engineering University); Keda Wang (Harbin Engineering University); Jianlong Liu (Harbin Engineering University); Jinhui Shi (Harbin Engineering University);*

00:00 Toroidal Dipole-driven Dual-channel Terahertz Metasurface: From Symmetry-protected BIC to Practical Biosensing and Communication

Invited

*Qun Ren (Tianjin University); Dongxue Wang (Tianjin University); Zihan Zhao (Tianjin University); Hengtong Zheng (Tianjin University); Xuan Bo Gao (Tianjin University); Kangyu Wang (Tianjin University); Jinhua Cheng (Tianjin University); Yu Liu (Tianjin University); Wei E. I. Sha (Tianjin University); Jianquan Yao (Tianjin University);*

00:00 Research on Semiconductor Optical Amplifiers and Integrated External-cavity Tunable Lasers

Invited

*Lei Liang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Can Yu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Yubing Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Yue Song (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Yongyi Chen (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Yuxin Lei (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Cheng Qiu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Peng Jia (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Li Qin (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Lijun Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*

00:00 On-chip Anti-resonant Waveguide Infrared Gas Sensing Technology

Invited

*Mingquan Pi (Jilin University); Yuting Min (Jilin University); Fang Song (Jilin University); Chuantao Zheng (Jilin University);*

00:00 Monolithic Plasmonic Metasurface Infrared Detectors

Invited

*Shiyu Yang (Shanghai Jiao Tong University); Yaping Dan (Shanghai Jiao Tong University);*

00:00 Photoacoustic Ringdown Spectroscopy for Rapid Hydrogen Detection

Invited

*Weilin Ye (Shantou University); Lifu Duan (Shantou University); Bin Li (Shantou University); Chuangjie Wang (Shantou University);*

00:00 Dual-function Switchable Terahertz Surface Plasmon Device Driven by a GST Metasurface

*Guanghong Xu (Tianjin University of Technology and Education); Quan Li (Tianjin University of Technology and Education); Yisheng Dong (Tianjin University); Shuang Wang (Tianjin University); Xueqian Zhang (Tianjin University);*

00:00 Enhanced Spontaneous Polarization in Directional Interlayer Sliding  $\gamma$ -InSe for Self-powered, All-day Visual Adaptation and Motion Perception

*Yuanzheng Li (Northeast Normal University); Haiyang Xu (Northeast Normal University); Ye Zhou (); Qingbin Wang (Northeast Normal University);*

00:00 Microcavity-enhanced Optoelectronic Fiber Photoacoustic Spectroscopy for ppb-level Trace Gas Sensing

*Yafei Li (Jinan University); Yanyu Jiang (Jinan University); Minghui Du (Jinan University); Chuantao Zheng (Jilin University); Tuan Guo (Jinan University);*

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**Session 3A15**
**Integrated Photoelectric Information Processing  
Technology**


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**Thursday AM, July 30, 2026**
**Room 15 - CR 18**

 Organized by Huashun Wen, Heng Zhou
 

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- 00:00 W-level Terahertz Power Amplification and Kilometer-Invited level Wireless Transmission beyond 300 GHz Using Hybrid Photonic-Electronic Synergy  
*Yuancheng Cai (Purple Mountain Laboratories);*
- 00:00 Experimental Investigation of Phase-sensitive Amplification Extinction Ratio in Optical Frequency Comb-enabled Optical Parametric Amplifier  
Invited  
*Jiabin Cui (Beijing University of Posts and Telecommunications);*
- 00:00 Dual-target Optical Pattern Recognition for BPSK Signals in Photonic Firewalls  
*Yanbin Shen (Beijing University of Posts and Telecommunications); Yanxia Tan (Research Institute of China United Network Communications Co, Ltd); Jiabin Cui (Beijing University of Posts and Telecommunications); Guo-Wei Lu (Kyushu University); Yuefeng Ji (Beijing University of Posts and Telecommunications); Huashun Wen (Nankai University); Ninghua Zhu (Nankai University);*
- 00:00 Low-noise Optical Parametric Signal Processing  
Invited  
*Ping Zhao (Sichuan University);*
- 00:00 Erbium-doped Amplifier and Mode-locked Lasers on Thin-film Lithium Niobate  
Invited  
*Kan Wu (Shanghai Jiao Tong University);*
- 00:00 Programmable Optical Computing Chips and Systems  
Invited  
*Wenchan Dong (Huazhong University of Science and Technology);*
- 00:00 Harnessing Physics-data Co-driven Deep Neural Networks for Deciphering Optical Coupled Resonant Systems  
*Songyi Liu (Beijing University of Posts and Telecommunications); Tingyang Pan (Beijing University of Posts and Telecommunications); Bolun Zhang (Beijing University of Posts and Telecommunications); Yemei Wang (Beijing University of Posts and Telecommunications); Bing Duan (Beijing University of Posts and Telecommunications); Yi Xu (Guangdong University of Technology); Huashun Wen (Nankai University); Daquan Yang (Beijing University of Posts and Telecommunications);*
- 00:00 Real-time FPGA Implementation of a Low-complexity Architecture for IM/DD and Coherent Reception in Data-center Interconnects  
Invited  
*Fan Li (Sun Yat-sen University);*

- 00:00 Supercontinuum Generation in Integrated Waveguide Platforms and Their Applications  
Invited  
*Xingchen Ji (Shanghai Jiaotong University);*
- 00:00 Low-noise Laser and Frequency Comb Based on a Brillouin Ring  
Invited  
*Hualong Bao (Soochow University);*
- 00:00 High-precision Forward Distributed Optical Fiber Sensing  
Invited  
*Huan Huang (Soochow University);*
- 00:00 Quantum Metrology with On-chip Quantum Frequency Combs in an SU(1,1) Interferometer  
Invited  
*Guangqiang He (Shanghai Jiao Tong University);*

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**Session 3A16**
**Light-matter Interaction in Micro- and Nanostructures 2**


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**Thursday AM, July 30, 2026**
**Room 16 - CR 19**

 Organized by Pavlos G. Savvidis, Zheng Sun
 

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- 00:00 Exciton-polarons in Doped Monolayer Semiconductors  
Invited  
*Dmitry K. Efimkin (Monash University);*
- 00:00 Photonic Crystal Cavity-enhanced Quantum Dot Single Photon Sources  
Invited  
*Feng Liu (Zhejiang University);*
- 00:00 Quantum Theory of Polariton Weak Lasing and Polarization Bifurcations  
*Huawen Xu (Beijing Academy of Quantum Information Sciences);*
- 00:00 Light-matter Interaction in All-van der Waals Metasurfaces  
Invited  
*Xingwang Zhang (Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS)); Yuefeng Wang (Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS)); Kai Ding (Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS)); Tao Wang (Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS));*
- 00:00 Luminescence Control in CsPbBr<sub>3</sub> Perovskites Using the Resonant Properties of Hydrothermal ZnO  
*Svetlana A. Kadinskaya (Moscow Institute of Physics and Technology); Valerii M. Kondratev (Moscow Institute of Physics and Technology); A. V. Nikolaeva (Moscow Institute of Physics and Technology); E. S. Zavyalova (Moscow Institute of Physics and Technology); D. S. Gets (ITMO University); A. D. Bolshakov (Moscow Institute of Physics and Technology);*
- 00:00 Experimental Observation of Topological Polaritons and Phase Transitions  
Invited  
*Ce Shang (Aerospace Information Research Institute, Chinese Academy of Sciences);*

- 00:00 Acoustic Black Hole Formation in a Shock-wave Exciton-polariton Condensate  
Invited Junhui Cao (*Moscow Institute of Physics & Technology*);
- 00:00 Ultrafast and Bright Quantum Sources with Selectively Activated Single Emitters Coupled with Nanophotonic Structures  
Invited Yong-Hoon Cho (*Korea Advanced Institute of Science and Technology (KAIST)*);
- 00:00 Structured Light Meets Liquid Crystals  
Le Zhou (*The Hong Kong University of Science and Technology*); Yuanfeng Liu (*Tsinghua University*); Pouya Nosrathkhan (*The Hong Kong University of Science and Technology*); Ke Xu (*The Hong Kong University of Science and Technology*); Yang Shen (*Tsinghua University*); Jingbo Sun (*Tsinghua University*); Ji Zhou (*Tsinghua University*); Kristiaan Neyts (*The Hong Kong University of Science and Technology*);
- 00:00 Rashba Effect and Strong Exciton-photon Coupling in CsPbBr<sub>3</sub>  
G. R. Yang (*Huazhong University of Science and Technology*); Shuang Liang (*University of Pittsburgh*); Wei Xie (*East China Normal University*); Weihang Zhou (*Huazhong University of Science and Technology*);
- 00:00 Disordered Mosaic Metasurfaces with Enhanced Functional Density  
Invited Haoran Ren (*Monash University*);
- 00:00 Nonlinearity-induced Chirality in Resonant Metasurfaces  
Invited Kirill L. Koshelev (*Australian National University*);
- 00:00 Tailoring Multidimensional Chiral Responses in All-dielectric Metasurfaces via Out-of-Plane Symmetry Engineering  
Invited Jingyi Tian (*Westlake University*);
- 00:00 High-throughput Linear and Nonlinear Optical Switching Enabled by Sb<sub>2</sub>S<sub>3</sub>/Si Hybrid Metasurfaces  
Amin Zamani (*Nottingham Trent University*); Gabriel Sanderson (*Nottingham Trent University*); Meibao Qin (*Nanchang Institute of Science and Technology*); Lu Zhang (*Northwestern Polytechnical University*); Qiwei Miao (*Northwestern Polytechnical University*); Sara Moujdi (*Nottingham Trent University*); Ze Zheng (*Nottingham Trent University*); Mohammad Hossein Momtazpour (*Nottingham Trent University*); Christopher J. Mellor (*University of Nottingham*); Wending Zhang (*Northwestern Polytechnical University*); Ting Mei (*Northwestern Polytechnical University*); Zakaria Mansouri (*Nottingham Trent University*); Lei Xu (*Nottingham Trent University*); Mohsen Rahmani (*Nottingham Trent University*);

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### Session 3A17

#### Recent Advances in Optical Metasurfaces 1

Thursday AM, July 30, 2026

Room 17 - CR 20

Organized by Fei Ding, Cheng Zhang

Chaired by Fei Ding

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- 00:00 Tunable-focus Terahertz Meta-devices for 6G and Beyond  
Invited Jingcheng Zhang (*Northwestern Polytechnical University*);
- 00:00 Deterministic Plasmonic Single-photon Emitters with Efficient Single-photon Emission and Extraction  
Invited Keyu Jin (*Zhejiang University*); Zijian Qin (*Zhejiang University*); Hongzhi Chen (*Zhejiang University*); Yifei Hua (*Zhejiang University*); Lian Shen (*Zhejiang University*);
- 00:00 End-to-end Framework Empowers Versatile Metasurface Design  
Invited Cheng Chi (*Beijing Institute of Technology*);
- 00:00 Metasurface-enabled Dynamical Optical Functions and Reconfigurable Information Steganography  
Invited Song Gao (*University of Jinan*);
- 00:00 High-Q Resonant Metasurfaces and Their Applications  
Invited Lujun Huang (*East China Normal University*);

- 00:00 Numerical Evaluation of Angle-dependent IR-transparent Radiative Cooling Performance for Asymmetric Periodic Structures  
Junwoo Gim (*Pohang University of Science and Technology*); Weng Cho Chew (*Purdue University*); Dong-Yeop Na (*Pohang University of Science and Technology*);

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### Session 3A18a

#### Recent Developments of Diffractive Optical Sensors Using Machine Learning 4

Thursday AM, July 30, 2026

Room 18 - VIP R8

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### Session 3A18b

#### Advanced Photonic Technologies for Sensing & Imaging Applications 1

Thursday AM, July 30, 2026

Room 18 - VIP R8

Organized by Simone Borri, Weixiong Zhao, Lei Dong, Marco Marangoni

Chaired by Weixiong Zhao, Lei Dong

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- 00:00 Broad-band, High-resolution, Free-running Dual-comb Spectroscopy for Greenhouse Gas Sensing  
Invited Jiaqi Zhou (*Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences*);

- 00:00 Development of Frequency-stabilized Cavity Ring-down Spectroscopy for Direct Measurement of HO<sub>2</sub> Radicals  
*Nuo Chen (University of Science and Technology of China); Yaoshuai Li (Anhui Institute of Optics and Fine Mechanics, Hefei Institutes of Physical Science, Chinese Academy of Sciences); Nana Yang (Anhui Institute of Optics and Fine Mechanics, Chinese Academy of Sciences); Bo Fang (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); An-Wen Liu (University of Science and Technology of China); Weixiong Zhao (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Weijun Zhang (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences);*
- 00:00 Fringe Noise-suppressed Formaldehyde Spectrometer Utilizing a Compact Modified Chernin Cell and Laser Current Jitter  
*Bo Fang (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Weimin Duan (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Heng Zhang (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Weixiong Zhao (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Nuo Chen (University of Science and Technology of China); Weijun Zhang (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences);*
- 00:00 Cavity Enhanced Absorption Spectroscopy for High Precision Measurement of Greenhouse Gases  
 Invited *Kun Liu (Anhui Institute of Optics & Fine Mechanics, Chinese Academy of Sciences); Weidong Chen (Université du Littoral Côte d'Opale); Xiaoming Gao (Anhui Institutes of Physical Science, Chinese Academy of Sciences);*
- 00:00 Rotating Phase Mask Based D2NN for Multi-plane Holographic Display  
*Qiqi Wang (Tongji University); Jiaxin Yan (Tongji University); Junhe Zhou (Tongji University);*
- 00:00 Enhancing MINFLUX 3D Localization Accuracy by Double-helix Point Spread Function  
*Anping Xiao (Zhejiang Normal University); Chuankang Li (Zhejiang Normal University); Daru Chen (Zhejiang Normal University); Cuifang Kuang (Zhejiang University);*
- 00:00 Time-stretch Vibrational Spectroscopy  
 Invited *Takuro Ideguchi (University of Tokyo);*
- 00:00 Balanced Detection-based Laser Heterodyne Radiometer to Enhance Its Vertical Sensitivity  
*Tingting Wei (Shanxi University); Aditya Saxena (Université du Littoral Côte d'Opale); Jingjing Wang (Anhui Institute of Optics & Fine Mechanics, Chinese Academy of Sciences); Tu Tan (Anhui Institute of Optics & Fine Mechanics, Chinese Academy of Sciences); Fengjiao Shen (Université du Littoral Côte d'Opale); Marie-Thérèse El Kattar (Université du Littoral Côte d'Opale); Hongpeng Wu (Shanxi University); Lei Dong (Shanxi University); Xiaoming Gao (Anhui Institutes of Physical Science, Chinese Academy of Sciences); Yao-Veng Te (Université Pierre et Marie-Curie (Paris 6)); Pascal Jeseck (Université Pierre et Marie-Curie (Paris 6)); Mélanie Ghysels-Dubois (Université de Reims); Hervé Herbin (Université de Lille); Wei Dong Chen (Université du Littoral Côte d'Opale);*
- 00:00 Advances in Optical Spectroscopy for Atmospheric and Environmental Applications: From Simulation Chambers to Field Campaigns  
 Invited *Wei Dong Chen (Université du Littoral Côte d'Opale); Yongyong Hu (Université du Littoral Côte d'Opale); Aditya Saxena (Université du Littoral Côte d'Opale); H. Yi (Université du Littoral Côte d'Opale); J.-F. Doussin (Universités Paris-Est Créteil and Université de Paris Diderot); Tao Wu (Nanchang Hangkong University); Cécile Coeur (Université du Littoral Côte d'Opale); Kun Liu (Anhui Institute of Optics & Fine Mechanics, Chinese Academy of Sciences); Weixiong Zhao (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Xiaoming Gao (Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences); Ruyue Cui (Shanxi University); Hongpeng Wu (Shanxi University); Lei Dong (Shanxi University); Tingting Wei (Shanxi University); Marie-Thérèse El Kattar (Université du Littoral Côte d'Opale); Hervé Herbin (Université de Lille); Tong Nguyen Ba (Université du Littoral Côte d'Opale);*
- 00:00 Transition between Guided and Leaky Fiber Cladding Modes as an Exceptional Point  
*Eugeny D. Chubchev (Dukhov Research Institute of Automatics (VNIIA)); Egor I. Dolzhenko (Kotelnikov Institute of Radioengineering and Electronics of Russian Academy of Sciences); Kirill A. Tomyshev (Kotel'nikov Institute of Radio Engineering and Electronics of RAS); Alexander V. Dorofeenko (Dukhov Research Institute of Automatics (VNIIA)); Oleg V. Butov (Kotelnikov Institute of Radioengineering and Electronics of RAS);*
- 00:00 Time Domain Near Infrared Optical Tomography for Brain Imaging: Advances and Challenges  
 Invited *Jingjing Jiang (University Hospital and University of Zurich);*
- 00:00 Hyperspectral Imaging and Microscopy by Fourier Transform Spectroscopy  
 Invited *Cristian Manzoni (CNR-IFN);*

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**Session 3A19**  
**Topological, Non-Hermitian and**  
**Supersymmetric Photonics**

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**Thursday AM, July 30, 2026**

**Room 19 - CR 27**  
Organized by Lu Sun  
Chaired by Lu Sun

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- 00:00 Silicon Photonic Chiral Transmission  
Invited  
*Lin Chen (Huazhong University of Science and Technology);*
- 00:00 Non-Abelian Gauge Fields in Synthetic Frequency Lattices  
Invited  
*Luqi Yuan (Shanghai Jiao Tong University);*
- 00:00 Non-Abelian Braiding in Integrated Photonics  
Invited  
*Xu-Lin Zhang (Jilin University);*
- 00:00 Topological Nano-rainbow Laser  
Invited  
*Yongquan Zeng (Wuhan University); Shouqi Zhang (Wuhan University); Cuicui Lu (Beijing Institute of Technology); Shaohua Yu (Peng Cheng Laboratory); Qi Jie Wang (Nanyang Technological University);*
- 00:00 Overcoming Adiabatic Limitations in Topological Photonic Waveguides  
Invited  
*Wange Song (Nanjing University);*
- 00:00 Supersymmetric Landau Levels in Subwavelength Type-I Dirac Metasurfaces  
Invited  
*Yi Yuan (Fudan University); Yikai Xu (Fudan University); Liang Zhao (Fudan University); Qiong He (Fudan University); Shulin Sun (Fudan University); Shaojie Ma (Fudan University); Lei Zhou (Fudan University);*
- 00:00 Landau Rainbow Induced by Artificial Gauge Fields  
*Wen Zhao (Beijing Institute of Technology); Cuicui Lu (Beijing Institute of Technology);*
- 00:00 Wave Morphing and Flat-top Ground States in Photonics Systems Driven by Artificial Gauge Fields  
*Peishen Li (Peking University); Xiaoyu Zhang (Peking University); Chao Peng (Peking University); Xuefan Yin (Peking University);*
- 00:00 Photonic Platform for Topological Insulator Models  
*Kun Liao (Peking University); Xiaoyong Hu (Peking University);*
- 00:00 Broadband Coupled Resonator Optical Waveguide with Robust Topological Coupler  
*Guo-Jing Tang (Sun Yat-sen University); Lu-Hang Jin (Sun Yat-sen University); Xin-Tao He (Sun Yat-sen University); Xiao-Dong Chen (Sun Yat-sen University); Jian-Wen Dong (Sun Yat-sen University);*
- 00:00 Valley Topological Photonics for Robust Classical and Quantum Information Processing  
*Hongwei Wang (Nanyang Technological University);*

- 00:00 Integrated Supermode Photonics Enabled by Supersymmetric Transformation  
*Lu Sun (Shanghai Jiao Tong University); Yuan Zhong (Shanghai Jiao Tong University); Qi Lu (Shanghai Jiao Tong University); Yikai Su (Shanghai Jiao Tong University);*

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**Session 3A20a**

**New Advances in Hybrid Nanomaterials: From Photonics to Energy-related Applications**

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**Thursday AM, July 30, 2026**

**Room 20 - CR 28**

Organized by Andrea Toma, Marzia Ferrera  
Chaired by Andrea Toma, Marzia Ferrera

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- 00:00 Integration of Polaritonic and Phase-change Materials for Dynamic Tuning of Mid-infrared Photonic Devices  
Invited  
*Daniele Ceneda (Sapienza Università di Roma); Nunzio Timpanaro Pirrina (Università di Palermo); Federico Vittorio Lupo (Università di Palermo); Martina Mercurio (Sapienza Università di Roma); Maria Pia Casaletto (National Research Council (CNR), Institute for Nanostructured Materials (ISMN)); Marco Centini (SAPIENZA Università di Roma); Maria Cristina Larciprete (Sapienza Università di Roma); Roberto Macaluso (Università di Palermo);*
- 00:00 Metamaterials and Photonic Crystals for Thermophotovoltaic Energy Harvesting  
Invited  
*Manohar Chirumamilla (Aalborg University (AAU)); Kjeld Pedersen (Aalborg University); Alexander Yu. Petrov (Hamburg University of Technology);*
- 00:00 Quantifying Light-driven Interfacial Charge Transfer in Metal-semiconductor Materials  
Invited  
*Olivier Henrotte (Ludwig-Maximilians-Universität München);*
- 00:00 Infrared Purcell Engineering of Vibrational Relaxation for Controlling Excited-state Dynamics in 2D Materials  
Invited  
*Kosei Ueno (Hokkaido University);*
- 00:00 Sustainable Photovoltaics and Photoelectrochemistry Based on Heavy-pnictogen Derivatives  
Invited  
*Teresa Gatti (Politecnico di Torino);*
- 00:00 Epitaxial NiO-based Thin Film Heterostructure Construction and Ultraviolet Detection Applications  
*Yuqiao Zhang (Jiangsu University); Qian Yang (Jiangsu University); Shen Zhang (Jiangsu University); Wentian Zhang (Jiangsu University); Jianming Zhang (Jiangsu University);*

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**Session 3A20b**  
**Extreme Nanophotonics in Plasmonic Nanostructures and Low-dimensional Systems 1**

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**Thursday AM, July 30, 2026**

**Room 20 - CR 28**

Organized by Wen Chen, Huatian Hu

Chaired by Wen Chen

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00:00 Plasmon-2D Single Exciton Strong Coupling at Room  
Invited Temperature

*Ting Luo (Henan University); Shihao Feng (Henan University); Renming Liu (Henan University);*

00:00 Electron Tunnelling and Exciton Manipulation in 2D  
Invited WSe<sub>2</sub> Enabled by Hierarchical Plasmonic Nanocavities

*Ximin Cui (Shenzhen University);*

00:00 Topological Nanophotonics on Metal Surfaces  
Invited

*Tong Fu (Shenzhen University);*

00:00 Manipulating the Light-matter Interactions within Single Plasmonic Nanocavities

*Jiawei Sun (Shenzhen University);*

00:00 Quantitative SERS beyond the Single-molecule Level  
Invited and Its Statistical Mechanism

*Zhipeng Li (Capital Normal University); Longkun Yang (Capital Normal University); Hongxing Xu (Institute of Physics, Henan Academy of Sciences);*

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**Session 3A21**  
**Disorder in Photonics 1**

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**Thursday AM, July 30, 2026**

**Room 21 - CR 29**

Organized by Haoran Ren, Changxu Liu

Chaired by Haoran Ren

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00:00 Vector Vortex Beam Based Edge Enhancement with Dy-  
Invited namic Orientation Selectivity

*Xianzhong Chen (Heriot-Watt University); Ham-  
mad Ahmed (Heriot-Watt University);*

00:00 Engineering 2D Materials for Polariton Nanophotonics  
Invited

*Qingdong Ou (Macau University of Science and Tech-  
nology);*

00:00 Generalized Angle-OAM Talbot Effect  
Invited

*Jianqi Hu (University of Hong Kong);*

00:00 Disorder Metasurface for Wavefront Modulation  
Invited

*Qinghua Song (Tsinghua University);*

00:00 Chiroptical Helical Dichroism by Photonic Orbital An-  
gular Momentum

*Jincheng Ni (University of Science and Technology of  
China);*

00:00 Ultra-broadband Miniature Computational Spectrome-  
Invited ter

*Dawei Liu (The Australian National University, Can-  
berra); Chaohao Chen (University of Technology Syd-  
ney); Yang Yu (The Australian National University,  
Canberra); Lan Fu (The Australian National Univer-  
sity);*

00:00 Disordered Nanoparticle Arrays and Metasurfaces for  
Invited Energy Harvesting and Encoding Optical Functional-  
ities

*Stefan Alexander Maier (Monash University);*

00:00 Structured Micro-lasers with Monolithic Disordered Per-  
Invited ovskite Meta-cavities

*Jiangang Feng (University of Science and Technology of  
China);*

00:00 High-dimensional Entanglement Meets a Subwavelength  
Metasurface for Tunable Quantum Topological Struc-  
tured Light

*Pedro Ornelas (University of the Witwatersrand); Chi Li  
(Monash University); Isaac Nape (University of the Wit-  
watersrand); Stefan Alexander Maier (Monash Univer-  
sity); Haoran Ren (Monash University); Andrew Forbes  
(University of the Witwatersrand);*

00:00 Diamond Based Nanophotonic Devices  
Invited

*Pei-Nan Ni (Zhengzhou University);*

00:00 Boosted Light-matter Interaction on Random  
Invited Lithography-free Metasurfaces

*Qiaoqiang Gan (King Abdullah University of Science and  
Technology (KAUST));*

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**Session 3A22**  
**Poster Session 6**

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**Thursday AM, July 30, 2026**

**9:00 AM - 12:00 AM**

**Poster Area**

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00:00 Design and De-embedding Methodology of Test Fixture  
for Accurate H-MTD Connector Characterization

*Cailiang Fu (Southwest University of Science and Tech-  
nology); Anfeng Huang (DeTooLIC Technology Co.,  
Ltd); Yin Sun (DeTooLIC Technology Co., Ltd); Xi-  
aohu Chen (China University of Petroleum); Jie Li  
(Southwest University of Science and Technology);  
Wei Zheng (Southwest University of Science and Tech-  
nology); Shufang Li (Beijing University of Posts and  
Telecommunications);*

00:00 Architecture Design of Software-defined Decentralized  
DBF Transceiver Module with Heterogeneous Acceler-  
ation

*Liu Yang (Nanjing Marine Radar Institute);*

- 00:00 Research on Electromagnetic Compatibility Simulation of Electromagnetic Energy Storage Devices Based on Actual Link Excitation  
*Junhao Shi (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Tao Bai (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Hao-ran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 A Stable Numerical Evaluation Method for Analytical Via-plate Capacitance Formulation Using Modified Bessel Functions  
*Xiaoping Li (Southwest University of Science and Technology); Tao Zhou (Southwest University of Science and Technology); Xu Wang (DeTooLIC Technology Co., Ltd.); Kan Hang (Zhejiang University); Yin Sun (DeTooLIC Technology Co., Ltd.); Xiaohe Chen (China University of Petroleum); Jingkun Mao (Tianjin University of Technology);*
- 00:00 Riemann-Silberstein Geometric Phase of Light  
*Yuqiong Cheng (City University of Hong Kong); Yuan-Song Zeng (City University of Hong Kong); Wangye Xiao (City University of Hong Kong); Tong Fu (Shenzhen University); Jiajun Wu (City University of Hong Kong); Geng-Bo Wu (City University of Hong Kong); Din Ping Tsai (City University of Hong Kong); Shubo Wang (City University of Hong Kong);*
- 00:00 Topological Phase Transition and Higher-order Corner States Analysis in a Coupling-coefficient-controlled Two-dimensional SSH Model  
*Yurou Zhong (Sun Yat-sen University);*
- 00:00 All Dielectric Frequency Selective Surface Based on Dense Resonant Mode of High Permittivity Ceramic Blocks  
*Liyang Li (Air Force Engineering University); Mingde Feng (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 Atmospheric Pressure Microwave Cold Plasma Activated Periodate for Efficient Degradation of Emerging Water Contaminants with Mechanistic Insights  
*Li Xue (Southwest Medical University); Yin Wang (Southwest Medical University); Jing Liu (Southwest Medical University); Hongyu Shendon (Southwest Medical University); Ping Wei (Southwest Medical University); Jiesi Luo (Southwest Medical University);*
- 00:00 Coherent Control of Three-level System Using Shaped Free Electrons  
*Dixuan Wu (Peking University); Jing Li (Peking University); Yuhan Jiang (Peking University); Yunquan Liu (Peking University);*
- 00:00 Tunable Photonic Spin Hall Effect in Core-shell Polar Dielectric Nanoparticles  
*Ye Zhang (Soochow University); Dongliang Gao (Soochow University); Andrey V. Novitsky (Belarusian State University); Aizaz Khan (Soochow University); Yun-qiao Yin (Soochow University); Xiaofeng Xu (Soochow University); Lei Gao (Suzhou City University);*
- 00:00 Si-integrated Epitaxial BaTiO<sub>3</sub> Thin Films for Electro-optic Applications  
*Dong Gao (Civil Aviation Flight University of China); Zhaoyang Wang (University of Electronic Science and Technology of China); Yangjingzhi Zhuang (Civil Aviation Flight University of China); Xiaoguang Tu (Civil Aviation Flight University of China); Qin Xie (Civil Aviation Flight University of China); Jun Qin (University of Electronic Science and Technology of China); Lei Bi (University of Electronic Science and Engineering of China);*
- 00:00 Embedded Fiber Optical Sensors for Structural Health Monitoring of Concrete Constructions  
*Ugis Senkans (Riga Technical University); Nauris Silkans (Riga Technical University); Rihards Gailitis (Riga Technical University); Martins Caune (Riga Technical University); Viktorija Leimane (Riga Technical University); Sandis Spolitis (Riga Technical University); Gregor Fischer (Technical University of Denmark); Janis Braunfelds (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Manipulating Excimer Emission in Organic Thin Films via Bloch Surface Wave Coupling  
*Keling Zhang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Tienan Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Wentian Zhang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xinxin Yao (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xiaoyang Guo (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*
- 00:00 Deep-ultraviolet-modulated Polarization-sensitive Optoelectronic Synapses Based on Ga<sub>2</sub>O<sub>3</sub> for Neuromorphic Computing  
*Zhenyang Wang (Zhejiang Sci-Tech University); Chao Wu (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);*

- 00:00 Study of 3–5  $\mu\text{m}$  Tunable Optical Parametric Oscillator Based on Periodically Poled MgO: PPLN Crystals  
Yuantao Zhao (Tianjin University); Yue Sun (Tianjin University); Kai Chen (Tianjin University); Pingyuan Song (Tianjin University); Boyang Fei (Tianjin University); Jining Li (Tianjin University); Kai Zhong (Tianjin University); Yuye Wang (Tianjin University); Degang Xu (Tianjin University); Jianquan Yao (Tianjin University);
- 00:00 Research on Application of Non-uniform Subarray True Time Delayer for Wideband Phased Array  
Guilin Sun (The 38th Research Institute of China Electronics Technology Group Corporation); Hongtao Zhang (East China Research Institute of Electronic Engineering); Wei Wang (East China Research Institute of Electronic Engineering);
- 00:00 Development of Switch Beam Antenna Using Koch Island Fractal Structure  
Bambang Sumajudin (Telkom University); Suprayogi (Telkom University); Adellia Rizki Oktaviani (Telkom University); Rahma Khairany (Telkom University); Paulus Osvaldo Yudistira Sihombing (Telkom University); Dwi Andi Nurmantris (Institut Teknologi Bandung); Novelita Rahayu (National Research and Innovation Agency (BRIN)); Achmad Munir (Institut Teknologi Bandung);
- 00:00 High-power Slotted Array Antenna for Lightweight Platforms  
Jiawei Wang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Dongping Gao (Aerospace Information of Research Institute, Chinese Academy of Sciences); Quanju Shi (Aerospace Information of Research Institute, Chinese Academy of Sciences); Dengpan Chang (Aerospace Information Research Institute, Chinese Academy of Sciences); Jie Peng (Aerospace Information of Research Institute, Chinese Academy of Sciences); Kaixuan Sun (Aerospace Information of Research Institute, Chinese Academy of Sciences, University of Chinese Academy of Sciences);
- 00:00 A Broadband Tightly Coupled Phased Array Using Tapered Bow-tie Dipoles and Metasurface Matching Layer  
Jun Xie (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Li-Juan Deng (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Miao Tang (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);
- 00:00 Compact Microstrip Tri-Band Bandpass Filter Using SIRs with Pseudo-interdigital Structure  
Zuxue Xia (Southwest University of Science and Technology); Wenhai Xia (Zhejiang Lierda Internet of Things Technology Co. Ltd.); Xin Cao (Southwest University of Science and Technology); Jie Zheng (Southwest University of Science and Technology); Dequan Shang (Southwest University of Science and Technology);
- 00:00 A 129.5–151.5 GHz Fully Differential Power Amplifier in 65 nm CMOS for Broadband D-band OOK Transmission  
Jingmin Jiang (Guangzhou University); Zihua Xia (Guangzhou University); Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University);
- 00:00 A Low-power Wideband Low-noise Amplifier with Current-reused Topology in 0.18- $\mu\text{m}$  CMOS for 5G Wireless Receivers  
Jiawen Zhong (Guangzhou University); Yidan Wang (Guangzhou University); Lin Peng (Guangzhou University); Jingmin Jiang (Guangzhou University); Zihua Xia (Guangzhou University); Yisi Yang (Guangzhou University); Xiuqiong Li (Guangzhou University);
- 00:00 Experimental Investigation on Polarization of C-band Wave Absorber Structured with Open Ring Resonator  
Budi Syihabuddin (Telkom University); Rama Setya Anggara (Telkom University); Levy Olivia Nur (Telkom University);
- 00:00 A Code-hopping Spread Spectrum Synchronization Algorithm with Structured Partial Matching and Non-coherent Accumulation  
Haonan He (Southwest University of Science and Technology); Li-Juan Deng (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Weiyu Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);
- 00:00 Analysis of Astroclimatic Conditions in the Extreme Far-infrared Range in Polar and Subpolar Regions  
Vyacheslav F. Vdovin (Institute of Applied Physics of the RAS); Maria V. Efimova (Institute of Applied Physics of the RAS);
- 00:00 A Novel Frequency Domain Phase Filter for InSAR Interferograms Based on the Goldstein Filter  
Shicheng Cao (Northwestern Polytechnical University); Yuxiao Qin (Northwestern Polytechnical University);
- 00:00 Lightweight Spiral Mamba Network with Dual-branch Polarimetric Attention and Wavelet Convolution for PolSAR Classification  
Wenqiang Hao (Wuhan Institute of Technology); Lei Wang (Wuhan Institute of Technology); Liangliang Han (Wuhan Institute of Technology); Shenghui Zhu (Wuhan Institute of Technology); Rong Gui (Central South University);

- 00:00 Echo Compensation Method Based on Interrupted Transmitting and Receiving of Up-down Frequency Modulation Signal in Anechoic Chamber  
*Xiaobin Liu (National University of Defense Technology); Zhenyu Qiao (National University of Defense Technology); Ailun Xie (National University of Defense Technology); Zhaoyu Gu (National University of Defence Technology); Feng Zhao (National University of Defense Technology);*
- 00:00 A Channel-weighted Transformer Method for Satellite Microwave Atmospheric Temperature and Humidity Profile Retrieval  
*Boyang Wang (Beijing Information Science and Technology University); Lanjie Zhang (Beijing Information Science and Technology University); Gang Wang (China Meteorological Administration China Huayun Meteorological Technology Group Co., Ltd); Jun Liu (China Meteorological Administration China Huayun Meteorological Technology Group Co., Ltd); Qiurui He (Luoyang Normal University);*
- 00:00 Modified Processing Sequence of FTT and RFI Correction for the L-band Aperture Synthesis Microwave Radiometer (LASMR)  
*Liu Yang (Huazhong University of Science and Technology); Rong Jin (Huazhong University of Science and Technology); Ke Chen (Huazhong University of Science and Technology); Qingxia Li (Huazhong University of Science and Technology);*
- 00:00 Research Progress of Optical Quantum Detection  
*Jing Qiu (Southwest Institute of Technical Physics); Beitong Cheng (Southwest Institute of Technical Physics); Ruomei Jiang (Southwest Institute of Technical Physics); Weiyang Hu (Southwest Institute of Technical Physics); Zichang Zhang (Southwest Institute of Technical Physics); Si Shen (Southwest Institute of Technical Physics); Shuai Huang (Southwest Institute of Technical Physics); Tong Li (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Wei Zhang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*
- 00:00 Design of a Compact High-voltage Pulse Generator  
*Shunqiang Wan (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Jie Deng (Southwest University of Science and Technology); Zipeng Zhang (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology); Cong Fu (Southwest University of Science and Technology);*
- 00:00 Advanced Linearization and Ripple Suppression for High-voltage Piezoelectric Drivers via Parallel Multi-level Topologies and Digital Predistortion  
*Haoyu Zhang (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Cheng Chen (Southwest University of Science and Technology); Qifeng Wu (Southwest University of Science and Technology); Hongqiao Chen (Southwest University of Science and Technology); Yuheng Gao (Southwest University of Science and Technology);*
- 00:00 Optimization of Linearity and Efficiency for Medium Wave Radio Transmitter Power Amplifiers  
*Yong Li (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yonghao Lu (Southwest University of Science and Technology); Yining Qing (Southwest University of Science and Technology); Qilong Yu (Southwest University of Science and Technology); Cheng Chen (Southwest University of Science and Technology); Yuying Zhu (Southwest University of Science and Technology);*
- 00:00 SOC Algorithm Estimation Considering Temperature Factors  
*Junfeng Luo (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Qiu He (Southwest University of Science and Technology); Hao Yang (Southwest University of Science and Technology); Yue Pan (Southwest University of Science and Technology); Jingxin Wei (Southwest University of Science and Technology);*
- 00:00 A Low Temperature Coefficient Bandgap Reference Using Current Domain Segmented Curvature Compensation  
*Liangyu Cao (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Huijia Li (Southwest Jiaotong University);*
- 00:00 A Superjunction IGBT with an Adjusted Carrier-storage Layer and an Additional Hole Path  
*Yixuanzhe Zhou (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Yuchi Qin (Southwest Jiaotong University);*
- 00:00 Clock-synchronized Dual-lane Sub-THz Silicon Interconnect Using Field-enhanced SSPP Transmission Lines  
*Mengding Guo (Guangzhou University); Lin Peng (Guangzhou University); Keshan Guo (Guangzhou University); Yibo Li (Guangzhou University); Yufan Xie (Guangzhou University); Yuming Su (Guangzhou University); Yuqian Han (Guangzhou University);*
- 00:00 Physical EXAMINATION and Simulation of Stability of GLYCINE IN SWCNT Nanotubes as well as Use of Carbon Nanotube for Environment Protection Applications  
*Diyar Bajalan (Technische Universität Wien);*

- 00:00 Low-scattering Design and Electrical Performance Analysis of Metal Pylons for RCS Testing of Large-scale Targets Using NCDD-IE Method  
*Zeng Yang (National Key Laboratory of Scattering and Radiation); Dong-Jue Liu (National Key Laboratory of Scattering and Radiation); Xiaolin Mi (National Key Laboratory of Scattering and Radiation); Yong-Gang Xu (National Key Laboratory of Scattering and Radiation); Zhi-Yong Huang (National Key Laboratory of Scattering and Radiation); Zhijie Xie (National Key Laboratory of Scattering and Radiation);*
- 00:00 Research on Optimal Design Method of IC-stripline Cell with Low Return Loss Based on Impedance Matching  
*Yongtao Wang (National University of Defense Technology); Jianfei Wu (National University of Defense Technology); Ledong Chen (National University of Defense Technology); Fukang Niu (National University of Defense Technology);*
- 00:00 ESD Evaluation for DC-DC Power in Aircraft Cabin Electromagnetic Environment Radiated by High Altitude Pulse Interference  
*Tao Bai (Southwest University of Science and Technology); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Junhao Shi (Southwest University of Science and Technology); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Qiangming Cai (Southwest University of Science and Technology); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Xin Cao (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 A Coupling-analysis Framework for RF Interference Between RF Traces and Power Planes  
*Tao Zhou (Southwest University of Science and Technology); Shengjun Liu (Huaqin Technology Co. Ltd.); Xiaoping Li (Southwest University of Science and Technology); Kaiming Ding (Huaqin Technology Co. Ltd.); Bin He (Huaqin Technology Co. Ltd.); Haiying Wang (Huaqin Technology Co. Ltd.); Xu Wang (DeTooLIC Technology Co., Ltd.); Anfeng Huang (DeTooLIC Technology Co., Ltd.); Yin Sun (DeTooLIC Technology Co., Ltd.); Qiusen He (Zhejiang University); Shufang Li (Beijing University of Posts and Telecommunications); Jun Fan (Southwest University of Science and Technology); Xiaohe Chen (China University of Petroleum);*
- 00:00 Acoustic Pancharatnam-Berry Metasurfaces for Structured Sound Manipulation  
*Wanyue Xiao (City University of Hong Kong); Wenjian Kuang (Hong Kong Polytechnic University); Sibao Huang (City University of Hong Kong); Shanjun Liang (Hong Kong Polytechnic University); Din Ping Tsai (City University of Hong Kong); Shubo Wang (City University of Hong Kong);*
- 00:00 Approximate Flat Bands and Localization in a One-dimensional Zigzag Granular Chain  
*Zhuo-Ying Liu (Sun Yat-sen University);*
- 00:00 Thermal Information Encryption Based on Composite Metasurfaces Comprising Volatile and Nonvolatile Phase-change Materials  
*Jungwoo Pyo (Yonsei University); Dongkyun Kang (Yonsei University); Jaehyeong Kim (Yonsei University); Hwajin An (Yonsei University); Myeongkyu Lee (Yonsei University);*
- 00:00 ADMM Spectrum Recovery Technique for THz Stepped-frequency Thickness Measurement Systems  
*Tianchi Zhou (UESTC); Yi Zhou (UESTC); Jun Zhou (University of Electronic Science and Technology); Yaxin Zhang (University of Electronic Science and Technology of China); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Observation of Quantized Klein Tunneling in a Dielectric Resonator Chain  
*Ruijie Zhang (Lanzhou University); Xiaozhen Peng (Lanzhou University); Hongya Xu (Lanzhou University); Liang Huang (Lanzhou University);*
- 00:00 Multi-channel Illumination Nonlinear Focus Modulation Microscopy  
*Junyi Tong (Zhejiang Normal University); Anping Xiao (Zhejiang Normal University); Chuankang Li (Zhejiang Normal University);*
- 00:00 Comparative Analysis of CNN Architectures Efficiency in Recognition of Wavefront Aberrations by the 4-channel Axicons Transformed Point Spread Function  
*D. P. Seraftmovich (Samara National Research University); Pavel A. Khorin (Samara National Research University, Saint-Petersburg State University, ITMO University);*
- 00:00 A Fast Radon-Fourier Transform Algorithm Based on Hierarchical Variable-resolution Search  
*Ziyu Feng (University of Electronic Science and Technology of China);*
- 00:00 Design and Research of High-efficiency Compact Bunching Sections for C-band Klystrons  
*Hongtao Yao (Northwest Institute of Nuclear Technology);*
- 00:00 Quantum Theory of the Influence of Intense Electromagnetic Waves on Quantum Thermo-magnetoelectric Effects in Two-dimensional Infinite Semi-parabolic Asymmetric Quantum Wells  
*Nguyen Thu Huong (Academy of Air Defense and Air Force); Nguyen Dinh Nam (Vietnam National University); Nguyen Quang Bau (Hanoi National University); Nguyen Quang Son (VNU University of Science);*
- 00:00 Strong Interaction between Plasmon and Topological Surface State in  $\text{Bi}_2\text{Se}_3/\text{Cu}_{2-x}\text{S}$  Nanowires for Solar-driven Photothermal Applications  
*Liang Ma (Wuhan Institute of Technology); Si-Jing Ding (China University of Geosciences (Wuhan));*

- 00:00 Spatial Code Division Encrypted/Multiplexed Images  
*Junhe Zhou (Tongji University); Qiqi Wang (Tongji University);*
- 00:00 A 127–157 GHz Broadband CMOS Power Amplifier with Stagger-tuned Driver Stages and Slot-balun Output Matching  
*Yidan Wang (Guangzhou University); Jiawen Zhong (Guangzhou University); Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University); Jingmin Jiang (Guangzhou University); Zihua Xia (Guangzhou University); Zicheng Liang (Guangzhou University); Rui Yu (Guangzhou University);*
- 00:00 Preliminary Evaluation on Signal Reception Performance of Circularly Polarized MIMO Antenna  
*Chairunnisa (Institut Teknologi Bandung); Trasma Yunita (Institut Teknologi Bandung); Agus Dwi Prasetyo (Institut Teknologi Bandung); Suprayogi (Telkom University); Bambang Sumajudin (Telkom University); Aloysius Adya Pramudita (Telkom University); Achmad Munir (Institut Teknologi Bandung);*
- 00:00 Orbit Determination for LEO Satellite Using Range Rate-based TLE Estimation at a Single Low-cost Ground Station  
*Achmad Maulana Syaerwan Suryo (Institut Teknologi Bandung); Dwi Andi Nurmantris (Telkom University); Ridanto Eko Poetro (Institut Teknologi Bandung); Achmad Munir (Institut Teknologi Bandung);*
- 00:00 Physics-inspired Neural Networks Based on Parametric Scattering Center for RCS Reconstruction  
*Tian-Xu Yan (Shanghai Institute of Mechanical and Electrical Engineering); Guotao Jiang (Shanghai Institute of Mechanical and Electrical Engineering); Jiayi Yang (Shanghai Institute of Mechanical and Electrical Engineering); Zeng Yang (National Key Laboratory of Scattering and Radiation); Gewen Yang (Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)); Kaizhi Ruan (Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai));*
- 00:00 Apodization-based Fiber Bragg Grating Sensor Networks for Structural Health Monitoring  
*Janis Braunfelds (Riga Technical University); Ugis Senkans (Riga Technical University); Viktorija Leimane (Riga Technical University); Nauris Silkans (Riga Technical University); Martins Caune (Riga Technical University); Sandis Spolitis (Riga Technical University); Gregor Fischer (Technical University of Denmark); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Optically Pumped Lasing from Pyrene Excimers in a Planar Microcavity  
*Tienan Wang (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Jie Lin (Oxford University); Xiaoyang Guo (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Ying Lv (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);*
- 00:00 CNN-transformer Hybrid Architecture for Nonlinear Distortion Compensation in Open RAN Optical Infrastructure  
*Igors Lipļanskis (Riga Technical University); Roberts Pildavs (Riga Technical University); Inna Nagla (Riga Technical University); Nadezda Ungure (Riga Technical University); Elans Grabs (Riga Technical University); Toms Salgals (Riga Technical University); Ernests Pētersons (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University); Aleksandrs Romanovs (Riga Technical University); Gun-tis Ancans (Riga Technical University); Lilita Gegere (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);*
- 00:00 A High Gain, UWB Vivaldi Antenna Loaded with Director for EMC Measurement Application  
*Tong Li Yuan (Southwest University of Science and Technology); Ruofan Wang (Southwest University of Science and Technology); Ling Ren (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Zhen-Yong Du (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yixiang Li (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Simulation of a Balanced Antipodal Vivaldi Antenna Fed with a SISL Structure  
*Junrui Zhang (Shandong University); Huashan Zhang (Shandong University); Qipeng Wang (AVIC Research Institute for Special Structures of Aeronautical Composites); Peng Liu (AVIC Research Institute for Special Structures of Aeronautical Composites); Guiqiang Du (Shandong University);*
- 00:00 Design of a Broadband Circular Polarized Patch Antenna Using a Microstrip Power Divider  
*Egor Dmitrievich Malev (National Research University “Moscow Power Engineering Institute”); T. A. Trushin (National Research University “Moscow Power Engineering Institute”); Mikhail Sergeevich Mikhailov (National Research University “Moscow Power Engineering Institute”); Valery A. Permyakov (National Research University “Moscow Power Engineering Institute”);*

- 00:00 Solar Radio Images Observed by the Wide Band 0.4–2 GHz Solar Radio Telescope  
*Sha Li (National Space Science Center of the Chinese Academy of Sciences); Yihua Yan (National Space Science Center of the Chinese Academy of Sciences); Chengming Tan (National Space Science Center of the Chinese Academy of Sciences); Zhichao Zhou (National Space Science Center of the Chinese Academy of Sciences); Wei Wang (National Space Science Center of the Chinese Academy of Sciences); C. Su (National Space Science Center of the Chinese Academy of Sciences);*
- 00:00 Design of X-band Broadband Slotted Circularly Polarized Phased Array Antenna  
*Miao Tang (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Jun Xie (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 Compact High-selectivity Bandpass Filter Based on Cross-coupled SIRs  
*Ji Li (Southwest University of Science and Technology); Zuzue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Hangjiang Xiao (Southwest University of Science and Technology);*
- 00:00 A 2.4-GHz 0.18- $\mu\text{m}$  CMOS Low-noise Amplifier with Concurrent Impedance and Noise Matching  
*Zihua Xia (Guangzhou University); Jingmin Jiang (Guangzhou University); Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University);*
- 00:00 Theoretical and Experimental Investigation of Subterahertz Gyrotron Helical Electron Beam Parameters  
*Andrey N. Kuftin (Institute of Applied Physics of the RAS); Vladimir Nikolaevich Manuilov (Institute of Applied Physics RAS);*
- 00:00 A Tunable VO<sub>2</sub>-based Metamaterial Absorber with Ultra-broadband and Polarization-insensitive Performance  
*Meng Han (Civil Aviation Flight University of China); Dun Lu (University of Electronic Science and Technology of China); Ningjie Shi (University of Electronic Science and Technology of China);*
- 00:00 Silence-aware Dynamic TDMA Scheduling for Multi-user Low-rate Voice Communication  
*Long Zhang (Xi'an University of Posts & Telecommunications); Kangrui Hou (Xi'an University of Posts & Telecommunications);*
- 00:00 Coexistence Challenges of Meteorological Radars and RLAN in the 5 GHz Frequency Band  
*Guntis Ancans (Riga Technical University); Arnis Ancans (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University); Lilita Gegere (Riga Technical University);*
- 00:00 A Novel Method Based on Ghosts Position Offset in SAR Sub-aperture Image for Multipath Ghosts Suppression  
*Yi Zhang (National University of Defense Technology); Leping Chen (National University of Defense Technology); Dao Xiang An (National University of Defense Technology);*
- 00:00 Research on Dynamic Detection of Near-surface Defects in Continuous Casting Steel Billets Based on Electromagnetic-thermal Coupling Mechanism  
*Jiayu Li (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Hui Zhao (Southwest University of Science and Technology); Junxi Su (Southwest University of Science and Technology); Yuhao Zeng (Southwest University of Science and Technology);*
- 00:00 A Physics-informed Neural Surrogate Framework for Real-time Refractivity from Clutter Inversion  
*Yi Yan (Xidian University); Jiangting Li (Xidian University); Yuxuan Wang (Xidian University);*
- 00:00 Study on the Sources of Brightness Temperature Simulation Bias in Terahertz Ice Cloud Remote Sensing  
*Liu Yang (Shanghai Aerospace Electronics Technology Research Institute); Jie Gao (Shanghai Spaceflight Institute of TT&C and Telecommunication); Jian Shang (National Satellite Meteorological Center (National Centre for Space Weather)); Fangli Dou (National Satellite Meteorological Center (National Centre for Space Weather)); Wulayin Yisilamu (Institute of Desert and Meteorology, China Meteorological Administration);*
- 00:00 Enhanced Quantum Sensing with Dynamical Correction  
*Zhida Zhang (Southern University of Science and Technology); Haidong Yuan (The Chinese University of Hong Kong); Xiu-Hao Deng (International Quantum Academy);*
- 00:00 FPGA-based Digital Architecture for Dynamic Frequency Tracking in High-frequency Induction Heating  
*Zipeng Zhang (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Shunqiang Wan (Southwest University of Science and Technology); Jingrin Wei (Southwest University of Science and Technology);*
- 00:00 Construction of Short-length Encoded Worst-case Patterns Using Genetic Algorithms  
*Jie Li (Southwest University of Science and Technology); Wenzhi Wang (DeTooLIC Technology Co., Ltd); Yin Sun (DeTooLIC Technology Co., Ltd.); Xiaohu Chen (China University of Petroleum); Shufang Li (Beijing University of Posts and Telecommunications); Cailiang Fu (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*

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**Session 3P1a****Remote Sensing of Ocean Dynamical Processes:  
Methods and Applications**

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**Thursday PM, July 30, 2026****Room 1 - CR 1**

Organized by Xudong Zhang, Junmin Meng

Chaired by Xudong Zhang

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- 00:00 Submesoscale Dynamical Processes in the Northern South China Sea Based on Numerical Simulations Combined with Remote Sensing Data  
*Zhanpeng Zhuang (Ministry of Natural Resources);*
- 00:00 Monsoon-driven Spatiotemporal Evolution of the Upper-ocean Energy Budget and Eddy Responses in the South China Sea  
*Jintong Zhu (First Institute of Oceanography, Ministry of Natural Resources); Yong Wan (China University of Petroleum); Junmin Meng (First Institute of Oceanography, Ministry of Natural Resources); Qiushuang Yan (China University of Petroleum (East China)); Chenqing Fan (First Institute of Oceanography, Ministry of Natural Resources);*
- 00:00 Spatial Reconstruction and Localization of Sea Surface Oil Spills Using Multi-satellite CYGNSS Observations  
*Rui Zhang (China University of Petroleum); Yong Wan (China University of Petroleum); Xiangying Miao (China University of Petroleum);*
- 00:00 A New Significant Wave Height of Wind Wave Inversion Model Proposed Based on Wind Speed  
*Daozhong Sun (Xidian University); Xianxian Luo (Xidian University); Qian Li (Xidian University); Feng Luo (Xidian University);*
- 00:00 Analysis of Imaging Characteristics of Internal Solitary Waves under High Sea Conditions Based on SWOT Images  
*Zheng Xu (First Institute of Oceanography, Ministry of Natural Resources); Hao Zhang (First Institute of Oceanography, Ministry of Natural Resources); Lina Sun (First Institute of Oceanography, Ministry of Natural Resources); Junmin Meng (First Institute of Oceanography, Ministry of Natural Resources);*
- 00:00 Coastal-enhanced Wet Tropospheric Correction for SWOT Wide-swath Altimetry via Multi-source Objective Analysis  
*Xiangying Miao (China University of Petroleum); Yong Wan (China University of Petroleum); Kunming Wang (China University of Petroleum);*
- 00:00 A Wave Parameter Inversion Method for Coherent X-band Radar via Multiscale Decomposition and Spectrum Reconstruction  
*Yejing Wang (China Three Gorges University); Han Liu (China Three Gorges University); Xinqiong Liu (China Three Gorges University); Wenjing Zhang (China Three Gorges University); Mengming Mao (China Three Gorges University);*

- 00:00 Improved Three-dimensional Temperature and Salinity Reconstruction in the Northwestern Pacific Ocean: Models and Training Strategies  
*Wenfang Lu (Sun Yat-sen university); Jiangnan He (Sun Yat-sen university); Zhigang Lai (Sun Yat-sen university);*
- 00:00 Multi-source Satellite Observations Promote the Study of Internal Solitary Waves  
*Xudong Zhang (Institute of Oceanology, Chinese Academy of Sciences); Xiaofeng Li (Institute of Oceanology, Chinese Academy of Sciences);*
- 00:00 Precision-corrected Sentinel-1 Doppler Retrieval of Internal Solitary Wave Surface-motion Signatures in the Sulu Sea  
*Zhonghao Yang (Shandong University of Science and Technology); Ruifu Wang (Shandong University of Science and Technology); Meng Zhang (Shandong University of Science and Technology); Hanghang Yang (Shandong University of Science and Technology);*

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**Session 3P1b****AI-enhanced Microwave Remote Sensing of Sea Ice**

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**Thursday PM, July 30, 2026****Room 1 - CR 1**

Organized by Yibin Ren, Yufang Ye

Chaired by Yibin Ren

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- 00:00 GLFFuse: A Multimodal Feature-level Fusion Network for Multi-task Fine-grained Recognition of Arctic Sea Ice  
*Xinwei Chen (South China University of Technology);*
- 00:00 Precise Recognition and Change Detection of Sea Ice Based on Optical Remote Sensing Images  
*Wenjun Hong (Fuzhou University); Zhanchao Huang (Fuzhou University); Hua Su (Fuzhou University);*

- 00:00 Inter-comparison of Ku and C-band Backscatter Feature Parameters for Arctic Sea Ice Using Spaceborne FengYun-3E WindRAD Scatterometer  
*Xiaochun Zhai (China Meteorological Administration); Shengrong Tian (Beijing Huayun Shinetek Science and Technology Company Ltd.); Jian Shang (National Satellite Meteorological Center (National Centre for Space Weather)); Guangzhen Cao (China Meteorological Administration); Minghu Ding (State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences); Xiao Cheng (Sun Yat-sen University); Lei Zheng (Sun Yat-sen University); Qian Shi (Ocean University of China); Yufang Ye (Sun Yat-sen University); Ke Zhao (China Meteorological Administration); Zhaojun Zheng (China Meteorological Administration); Yixuan Shou (China Meteorological Administration); Na Xu (Key Laboratory of Radiometric Calibration and Validation for Environmental Satellites); Xiuqing Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration); Lin Chen (China Meteorological Administration);*
- 00:00 AI-reconstruction of a Daily Arctic Sea Ice Concentration Product during the Summer Melt Season Using Multisource Microwave Data  
*Yan Sun (National University of Defense Technology); Xiao Cheng (Sun Yat-sen University);*
- 00:00 Extracting Fine Features of Sea Ice Leads in the Arctic Using a Deep Learning Model from Sentinel-1 SAR Images  
*X. R. Yang (Institute of Oceanology, Chinese Academy of Sciences); Yibin Ren (Institute of Oceanology, Chinese Academy of Sciences); Xiaofeng Li (Institute of Oceanology, Chinese Academy of Sciences);*
- 00:00 SLAP-HiFNet: A Stage-linked Active-Passive Microwave Hierarchical Fusion Network with Label-efficient Transfer Learning for Sea Ice Mapping  
*Yushi Yang (Tongji University); Tiantian Feng (Tongji University); Peng Jiang (Tongji University); Liwen Zhang (Tongji University); Xiaomin Liu (Zhejiang Agriculture and Forestry University); Yuxuan Hu (Tongji University);*
- 00:00 Learning-based Arctic Sea Ice Drift Extractions from Multi-frequency Passive Microwave Data  
*Peng Jiang (Tongji University); Tiantian Feng (Tongji University); Yushi Yang (Tongji University); Xiaomin Liu (Zhejiang Agriculture and Forestry University);*
- 00:00 Regional Arctic Sea Ice Concentration Product Derived from Spaceborne Radarsat-2 SAR Imagery  
*Yiru Lu ();*
- 00:00 Global-local Feature Fusion Network for Multi-task Sea Ice Retrieval  
*Yuxuan Hu (Tongji University); Tiantian Feng (Tongji University); Yushi Yang (Tongji University); Peng Jiang (Tongji University);*

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**Session 3P2a**  
**Advances in Radar Sensing and Imaging Techniques**

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**Thursday PM, July 30, 2026**

**Room 2 - CR 2**

Organized by Kai Tan, Xianzhong Tian

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- 00:00 Satellite-based Retrieval of Radar Composite Reflectivity Using a Conditional Generative Adversarial Network  
*Chengming Pu (Chengdu University of Information Technology); Qiangyu Zeng (Chengdu University of Information Technology); Jianxin He (Chengdu University of Information Technology); Hao Wang (Chengdu University of Information Technology); Kai Cheng (Chengdu University of Information Technology);*
- 00:00 Space-time-range Adaptive Processing Design for FDA-MIMO Radar in Non-uniform Clutter Environment  
*Di Wang (Sun Yat-sen University); Tiantian Zhong (Sun Yat-sen University); Haifeng Huang (Sun Yat-sen University);*
- 00:00 Multi-source Observational Data Analysis of a Convective Heavy-rainfall Event in Aba Tibetan and Qiang Autonomous Prefecture  
*Ya Fu (Chengdu University of Information Technology); Xiaojing Huang (Sichuan Meteorological Observatory); Li Luo (Institute of Urban Meteorology); Bowen Ren (Chengdu University of Information Technology); Fang Cong (Sichuan Meteorological Observatory); Ling Yang (Chengdu University of Information Technology); Xiaoqiong Zhen (Chengdu University of Information Technology);*
- 00:00 Comparative Analysis of Beijing's S-band Weather Radar and C-band Phased Array Radar Observations During a Single Heavy Rainfall Event  
*Bowen Ren (Chengdu University of Information Technology); Jinqiang Zhang (Institute of Atmospheric Physics, Chinese Academy of Sciences); Fugui Zhang (Chengdu University of Information Technology); Ya Fu (Chengdu University of Information Technology); Hongbin Chen (Institute of Atmospheric Physics, CAS); Xiaoqiong Zhen (Chengdu University of Information Technology); Wenying He (Institute of Atmospheric Physics, Chinese Academy of Sciences); Yongheng Bi (Institute of Atmospheric Physics, Chinese Academy of Sciences);*
- 00:00 SIL Radar Sensor Based on a 2-4 GHz Push-Push VCO Used for Vital Sign Detection  
*Chun Chen (City University of Hong Kong Qingdao Research Institute); Zhengqing Guo (City University of Hong Kong Qingdao Research Institute); Xianzhong Tian (City University of Hong Kong Qingdao Research Institute);*

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**Session 3P2b**
**Microwave Imaging and Planetary Exploration Applications**


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**Thursday PM, July 30, 2026**
**Room 2 - CR 2**

 Organized by Pingping Lu, Robert Yu Wang
 

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- 00:00 Full Polarimetric Electromagnetic Scattering Model of Lunar Ice Particles and Analysis  
*Niutao Liu (Fudan University); Lan Luo (Fudan University); Ya-Qiu Jin (Fudan University);*
- 00:00 Antenna Pattern Calibration and Multi-scene Consistency for Mini-RF S-band  
*Zeyu Li (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Fei Zhao (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Tingyu Meng (University of Chinese Academy of Sciences); Lizhi Liu (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Zihan Xu (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Pingping Lu (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 A Benchmark Dataset of Lunar Secondary Craters with Radar-bright Ejecta and Its Classification Framework  
*Mofei Li (Aerospace Information Research Institute, Chinese Academy of Sciences); Pingping Lu (Aerospace Information Research Institute, Chinese Academy of Sciences); T. Y. Meng (Aerospace Information Research Institute, Chinese Academy of Sciences); Fei Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 3-D Full-wave PSTD Modeling of MARSIS Flyby Radar Sounding over Phobos  
*Weiliang Li (Chinese Academy of Sciences, National Space Science Center); Yang Lei (Chinese Academy of Sciences, National Space Science Center); Marco Mastrogiuseppe (Link Campus University); Maria Carmela Raguso (California Institute of Technology);*

- 00:00 Characterizing the Polarimetric Scattering Properties of 'A'ā and Pāhoehoe Lava Flows Using Dual-polarimetric SAR Data  
*Luxin Wang (CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center Chinese Academy of Sciences); Liting Liang (National Space Science Center, Chinese Academy of Sciences); Dong Li (National Space Science Center, Chinese Academy of Sciences); Feng Zhang (National Space Science Center, Chinese Academy of Sciences); Shengli Niu (National Space Science Center, Chinese Academy of Sciences); Yunhua Zhang (National Space Science Center, Chinese Academy of Sciences);*

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**Session 3P2c**
**Electromagnetic Scattering and Inversion in Complex Environments**


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**Thursday PM, July 30, 2026**
**Room 2 - CR 2**

 Organized by Hongxia Ye, Yuan Fang
 

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- 00:00 Defect Reconstruction Method Based on Magnetic Sensor Array  
*Chenxi Wang (Northwestern Polytechnical University); Jingpan Jia (Northwestern Polytechnical University); Zupeng Liang (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);*
- 00:00 A Machine Learning-based Method for Estimating Center Frequency from One-dimensional Doppler Spectrum  
*Qianlin Dong (China Three Gorges University); Han Liu (China Three Gorges University); Xinqiong Liu (China Three Gorges University); Wenjing Zhang (China Three Gorges University); Mengming Mao (China Three Gorges University);*
- 00:00 The Effect of Tundra Active-layer Vegetation and Surface Roughness on Ultra-wideband Impulse Reflection  
*Konstantin Victorovich Muzalevskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences);*
- 00:00 Key Factors Influencing Ship Wake Detection in SAR Images  
*Qian Li (Xidian University); Daozhong Sun (Xidian University); Feng Luo (Xidian University); Fanwei Su (Ocean University of China);*
- 00:00 NIE-Net: A New Integral Equation Network for Inverse Scattering Problems  
*Zhenghui Su (Fudan University); Hongxia Ye (Fudan University);*
- 00:00 BSM-CCBFM: A Hybrid Algorithm for Accelerated Full-wave Scattering Simulation of Electrically Large Rough Surfaces with Validation on Oceanic and Lunar Surface Scattering  
*Chenghao Cai (Fudan University); Hongxia Ye (Fudan University);*

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**Session 3P3a**
**Advanced Techniques in PolSAR and PolInSAR  
Scattering Interpretation and Applications**


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**Thursday PM, July 30, 2026**
**Room 3 - CR 3**

Organized by Junjun Yin, Jian Yang

 Chaired by Junjun Yin
 

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- 00:00 CMAES-GLRT: A Gridless Method for Super-resolution Detection in Tomographic SAR  
*Yucheng Gao (National University of Defense Technology (NUDT)); Y. J. Wang (National University of Defense Technology (NUDT)); S. Y. Zhang (National University of Defense Technology (NUDT)); Z. Dong (National University of Defense Technology (NUDT)); Wentao An (National Satellite Ocean Application Service);*
- 00:00 Lutan-1: First Demonstration of Hybrid Polarimetric SAR — Assessing Application Potentials and Performance Constraints  
*Lizhi Liu (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Pingping Lu (Aerospace Information Research Institute, Chinese Academy of Sciences); Cheng Xing (Aerospace Information Research Institute, Chinese Academy of Sciences); Yanyan Zhang (Aerospace Information Research Institute, Chinese Academy of Sciences); Yonghua Cai (University of Chinese Academy of Sciences); Fei Zhao (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Bo Li (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Liang Li (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Aichun Wang (China Center for Resources Satellite Data and Application); Ning Li (Henan University); Robert Wang (National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences); Yirong Wu (Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 Rapeseed Total Photosynthetic Area Index Inversion Coupling Canopy Vertical Layered Microwave Scattering Mechanism and Machine Learning  
*Shangrong Wu (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences);*
- 00:00 SAR Image Generation via Texture Consistency-based Diffusion Models  
*Zhiqiang Zeng (Chongqing University); Xin Su (Chongqing University); Xuelian Xu (Chongqing University); Yang Fang (Chongqing University); Huiping Lin (Chongqing University);*

- 00:00 Full-polarization EM Modeling and SAR Image Simulation for Large-scale Rough Surfaces  
*Zun Zhang (Tsinghua University); Xin Yuan (Beijing Institute of Technology); Zewei Zhao (Navigation and Control Technology Research Institute of China North Industries Group Corporation); Kun-Yi Guo (Beijing Institute of Technology); Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);*
- 00:00 A Space Target Recognition in Few-shot Scenarios Based on Polarimetric Scattering Mechanisms and Geometric Priors for ASC Characterization  
*Wenhao Xiao (University of Science and Technology Beijing); Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);*
- 00:00 Investigation of the Effect of Bi-spectrum on Multiple Scattering from Non-Gaussian Sea Surface  
*Yuhua Guo (Space Star Technology Co., Ltd, China Academy of Space Technology); Jiayong Yin (Space Star Technology Co., Ltd, China Academy of Space Technology); Zongwu Dai (Space Star Technology Co., Ltd, China Academy of Space Technology); Hongyan Cheng (Space Star Technology Co., Ltd, China Academy of Space Technology); Shangqiang Liu (Space Star Technology Co., Ltd, China Academy of Space Technology);*
- 00:00 A Polarimetric Statistical Information-guided Network for PolSAR Image Classification  
*Mingrui Song (University of Science and Technology Beijing); Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);*
- 00:00 Polarimetric Patterns: A Deep Understanding of Polarimetric Scattering Responses  
*Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);*
- 00:00 Salt Crust Fine Classification of Fully Polarimetric SAR Based on the Corrections from Rough Surface Scattering Mechanism  
*Shuo Li (Jinan Branch of China United Network Communications Co., Ltd.); Minghan Huang (Beijing University of Chemical Technology); Qiang Yin (Beijing University of Chemical Technology); Fan Zhang (Beijing University of Chemical Technology);*

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**Session 3P3b**
**Theory and Methods for Synthetic Aperture  
Radar Jamming Based on Time-modulated  
Metasurfaces**


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**Thursday PM, July 30, 2026**
**Room 3 - CR 3**

 Organized by Huilin Mu, Chang Ding
 

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- 00:00 Design of Conformal Beam Scanning Leakage Wave Antenna Based on PI  
*Jiahao Liu (Shenyang Aerospace University); Shuang Ma (Shenyang Aerospace University);*

- 00:00 Bipolarized Time-domain Modulated Reconfigurable Electromagnetic Metamaterial Surface  
*Peizhou Hu (Air Force Engineering University);*
- 00:00 A Wide-angle and Broadband C-band Metasurface Based on an Elongated Metallic Strip Array with Rectangular Patch Parasitism  
*Min Zhou (Air Force Engineering University); Zhihui Zhang (Air Force Engineering University); Jun Wang (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 An Inverse Design Method for Metasurfaces with Automated Modeling Based on Coupled-mode Theory  
*Jinwei Chen (Harbin Institute of Technology); Yang Yu (Harbin Institute of Technology); Chang Ding (Harbin Institute of Technology);*
- 00:00 A Full-space Transmit-reflect Integrated Metasurface for Switchable Transmission Communications and Passive SAR Deception  
*Fan Wu (Air Force Engineering University); Chang Ding (Air Force Engineering University); Huilin Mu (Air Force Engineering University);*
- 00:00 ITO Film-based Wide-angle Communication Enhanced Metasurface  
*Yujuan Wei (Air Force Engineering University);*
- 00:00 Longitudinal Control of Topological Skyrmions via Phased Meta-array  
*Xinmin Fu (Air Force Engineering University);*
- 00:00 Cosinusoidal Phase Modulation Jamming Using Tunable Metasurface Against SAR-GMTI  
*Chang Ding (Harbin Institute of Technology); Huilin Mu (Air Force Engineering University); Fanyi Meng (Harbin Institute of Technology); Yun Zhang (Harbin Institute of Technology); Jiafu Wang (Air Force Engineering University);*
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- Session 3P4a**  
**Advances of Numerical Methods and Techniques in Computational Electromagnetics**
- 
- Thursday PM, July 30, 2026**  
**Room 4 - CR 8**  
Organized by Mei Song Tong, Li Zhang
- 
- 00:00 Signal Integrity Analysis of Differential TSV-GSSG Arrays Using EM-Circuit Co-simulation Method  
*Wei Zhang (Zhejiang University); Guo Li (Zhejiang University); Qiwei Zhan (Zhejiang University);*
- 00:00 A Hierarchical Field-circuit Co-simulation Methodology for Monolithic 3D Integrated Systems  
*Guo Li (Zhejiang University); Yue Yuan (Nanjing University of Science and Technology); Wei Zhang (Zhejiang University); Lei Huang (Zhejiang University); Qiwei Zhan (Zhejiang University);*
- 00:00 Accelerating A-Phi Potential Solvers via FETI-DP Domain Decomposition  
*Hyeongjun Gwon (Pohang University of Science and Technology (POSTECH)); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 A Physics Residual Updated CCU-Net for Phaseless Electromagnetic Inverse Scattering  
*Kai Lun Xu (Shanghai Normal University); Chunxia Yang (Shanghai Normal University); Mei Song Tong (Tongji University);*
- 00:00 An Adaptive RBF Neural Network PID Speed Control Method for PMSM Drives under Load Disturbances  
*Xing Yu Xu (Shanghai University of Engineering Science); Shu Jia Yan (Shanghai University of Engineering Science); Junyou Chen (Shanghai Investigation, Design & Research Institute Co., Ltd., China Three Gorges Corporation); Mei Song Tong (Tongji University); Fan Shuo Liu (Shanghai University of Engineering Science);*
- 00:00 Construction and Application of a Knowledge Graph for Switchgears Based on Standards of Underwriters Laboratories  
*Fan Shuo Liu (Shanghai University of Engineering Science); Shu Jia Yan (Shanghai University of Engineering Science); Xing Yu Xu (Shanghai University of Engineering Science); Chunyu Yao (Evaluating and Examining Center of State-Funded Construction Projects); Mei Song Tong (Tongji University);*
- 00:00 A Unified SOC-TTE Framework for Power-temperature Mapping Based Smartphone Battery Life Prediction  
*Kaiqi Yang (Shanghai University of Engineering Science); Shu Jia Yan (Shanghai University of Engineering Science); Xinbo Liu (Shanghai Marine Equipment Research Institute); Mingyue Cao (Shanghai University of Engineering Science); Xuetong Yan (Shanghai University of Engineering Science);*
- 00:00 An Enhanced Real-time System for Crowd Density Detection and Intelligent Crowd Analysis Based on YOLOv8  
*Qihang Deng (Xian Jiaotong-Liverpool University); Huiying Shi (Shanghai University of Engineering Science); Hua Ding (High School Affiliated To Nanjing Normal University Suqian Campus); Kaiqi Yang (Shanghai University of Engineering Science);*
- 00:00 A Physics-consistent Imaging Method Based on Differentiable Forward Operator for Electromagnetic Inverse Scattering  
*Hao Ming Lv (Shanghai Normal University); Chunxia Yang (Shanghai Normal University); Mei Song Tong (Tongji University);*

**Session 3P4b****Recent Advances in Computational Electromagnetics: Methods and Applications**

Thursday PM, July 30, 2026

Room 4 - CR 8

Organized by Kewen He, Kazuya Kobayashi

Chaired by Kewen He, Kazuya Kobayashi

- 00:00 Electromagnetic Scattering from a Material-loaded Parallel-plate Waveguide under E-polarized Incidence  
*Tong Zhang (Chuo University); Kazuya Kobayashi (Chuo University);*
- 00:00 Scattering of Electromagnetic Waves by Inhomogeneous Dielectric Gratings Loaded with Parallel Perfectly Conducting Strips — Matrix Formulation of Point Matching Method  
*Tsuneki Yamasaki (Nihon University);*
- 00:00 Spectral Integral Method for Multilayered Concentric Magneto-dielectric-metallic Spheres and Its Applications  
*Zhen Guan (Great Bay University); Fa-Lin Liu (University of Science and Technology of China); Feng Han (Great Bay University);*
- 00:00 Comparative RCS Analysis of Material-loaded Parallel-plate Waveguide Cavities Based on the Wiener-Hopf Technique  
*Kewen He (Hunan University of Science and Technology); Kazuya Kobayashi (Chuo University);*
- 00:00 Wiener-Hopf Analysis of Plane Wave Diffraction by a Slit and a Strip with Fractional Boundary Conditions  
*Takashi Nagasaka (Ashikaga University); Kazuya Kobayashi (Chuo University);*
- 00:00 Analysis of Energy Distribution in Multilayered Inhomogeneous Media with Frequency Dependence  
*Yuyi Wang (Nihon University); Ryosuke Ozaki (Nihon University); Tsuneki Yamasaki (Nihon University);*
- 00:00 A Versatile Surface Integral Equation Method for Light Scattering in Homogeneous, Periodic, and Stratified Media  
*Parmenion S. Mavrikakis (Swiss Federal Institute of Technology Lausanne (EPFL)); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 Fundamental Study on Creation of Volumetric Video Using Generative AI  
*Takashi Kuroiwa (Nihon University); Yifan Wu (Nihon University); Syota Yazawa (Nihon University); Akira Uchida (Nihon University);*

**Session 3P5a****Inverse Design of Antennas and RF Circuits**

Thursday PM, July 30, 2026

Room 5 - CR 9

Organized by Yujie Zhang, Ziheng Zhou

Chaired by Yujie Zhang, Ziheng Zhou

- 00:00 Subwavelength Pixel Metamaterial for High-density Analog Computing  
*Pengyu Fu (Tsinghua University); Yue Li (Tsinghua University);*
- 00:00 Multiport Analytical Pixel Electromagnetic Simulator (MAPES) for AI-assisted Inverse Design of Microwave/RFIC Structures  
*Invited Junhui Rao (Hong Kong University of Science and Technology); Chi-Yuk Chiu (The Hong Kong University of Science and Technology); Ross D. Murch (Hong Kong University of Science and Technology);*
- 00:00 Neural Network Based Single-RF ESPAR Beamforming  
*Invited Zixiang Han (China Mobile Research Institute); Hanning Wang (China Mobile Research Institute); Jing Jin (China Mobile Research Institute); Qixing Wang (China Mobile Research Institute); Junhui Rao (Hong Kong University of Science and Technology); Yujie Zhang (Nanyang Technological University);*
- 00:00 AI for Electromagnetic Scattering Analysis Based on Inherent Feature Parameters  
*De-Hua Kong (National University of Singapore); Xudong Chen (National University of Singapore);*
- 00:00 Inverse Design of Geometric-phase Meta-atoms with Distinct Symmetries for Flexible Wavefront Control  
*Invited Kai Qu (Nanjing University); Ke Chen (Nanjing University); Yijun Feng (Nanjing University);*
- 00:00 Inverse Design of Pixel-metastructure-based Multi-element MIMO Antennas  
*Bin Wei (Fuzhou University); Zubin Cheng (Fuzhou University); Ziheng Zhou (Fuzhou University);*
- 00:00 Design of Matrix-type and Reconfigurable Multi-beam Antenna Arrays Using Pixel Structures  
*Fan Jiang (Guangdong University of Technology); Zhitao Song (Guangdong University of Technology);*
- 00:00 Design of Shared-aperture Multiband MIMO Antenna Array by Scattering Minimization  
*Yujie Zhang (Nanyang Technological University); Xudong Chen (National University of Singapore);*

**Session 3P5b****Antenna and Array: Theory and Applications 1**

Thursday PM, July 30, 2026

Room 5 - CR 9

- 00:00 A Hybrid Optimization Framework for 2-bit Polarimetric Time Modulated Array Beamforming  
*Dongwei Lu (National University of Defense Technology); Jiazhi Ma (National University of Defense Technology);*
- 00:00 Deterministic Polarization Control in Dual-CP Arrays via Generalized Scattering Matrix for Radar Stealth  
*Xiao Jie Lu (Tongji University); Qi Pu Zhang (Tongji University); Bo Wang (Tongji University); Xiao Yu Li (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 Research on Dual-band High-power Reflect Array Antenna Based on Orthogonal Open-loop Circularly Polarized Elements  
*Yunfei Sun (National University of Defense Technology); Zhaokun Ma (National University of Defense Technology); Quan Zhang (National University of Defense Technology); Chenbo Hua (National University of Defense Technology); Qiang Zhang (National University of Defense Technology);*
- 00:00 Edge Loading Technique for Bandwidth Enhancement of Antipodal Vivaldi Antenna Array  
*Xiao-Jun Zou (National University of Defense Technology);*
- 00:00 Wideband Clover-shaped ME-dipole Antenna on Glass Substrate for D-band Array Applications  
*Jiachen Du (Pengcheng Laboratory); Zhangju Hou (Pengcheng Laboratory); Ge Zhang (Pengcheng Laboratory); Wentao Xu (Pengcheng Laboratory); Shangcheng Kong (Pengcheng Laboratory);*
- 00:00 A Novel Ultra-wideband Reconfigurable Array Antenna Based on Fractal Structures  
*Jianying Zhao (Shanghai Polytechnic University); Chi Zhang (Shanghai Polytechnic University); Xiaokun Gu (Shanghai Polytechnic University); Mei Song Tong (Tongji University); Li Zhang (Shanghai Polytechnic University);*
- 00:00 Design of a Tri-band Dual Circularly Polarized Antenna  
*Jun-Cheng Shen (Xidian University); Xu-Bing Su (Xidian University); Neng-Wu Liu (Xidian University);*
- 00:00 Design of a Dual-polarized Low-sidelobe Ku-band Slotted Waveguide Antenna  
*Xu-Bing Su (Xidian University); Cheng-Peng Yuan (Xidian University); Neng-Wu Liu (Xidian University);*
- 00:00 A Phase-locked Cherenkov-type Oscillator for High Invited Power Microwave Applications  
*Jin-Chuan Ju (National University of Defense Technology); Tianzhen Zhao (National University of Defense Technology); Wei Zhang (National University of Defense Technology);*
- 00:00 Enhanced Carbon Dioxide Conversion in Atmospheric Microwave Plasma with Local Electric Field Enhancement  
*Wei Xiao (Guizhou University); X. Li (Guizhou University);*
- 00:00 Electromagnetic Black Hole Enhanced Time Reversal Directional Microwave Heating  
*Chong Xu (Chongqing University of Technology);*
- 00:00 Mechanism of Static Electric Field Effects on Regioselectivity in Friedel-Crafts Acylation of m-Bromotoluene via In-Situ Monitoring  
*Dezhi Gou (China West Normal University);*
- 00:00 Edge Effect of Periodic Silicon Wafers in Microwaves  
*Yinhong Liao (Southwest University); Hui Zhang (Southeast University);*
- 00:00 Study on the Thermal Mechanism of Microwave and Infrared Irradiation on Materials Based on Multi Physics Calculation  
*X. W. Xu (China West Normal University); D. G. Shen (Chengdu Guoguang Electric Co., Ltd); G. Shen (Sichuan Nanchong Shouchuang Technology Development Co., Ltd); Zheng-Ming Tang (China West Normal University);*
- 00:00 A Compact Coaxial Microwave Exciter for Enhancing Deep-ultraviolet ZnI<sub>2</sub> Lamp Output  
*Yu Zhong (Chongqing Polytechnic University of Electronic Technology); Kama Huang (Sichuan University);*
- 00:00 Enhanced Degradation of Metronidazole by Activation of Sodium Persulfate with a Microwave Atmospheric Pressure Cold Plasma  
*Li Xue (Southwest Medical University); Jiesi Luo (Southwest Medical University); Yin Wang (Southwest Medical University); Yukun Xue (Southwest Medical University); Limei Zheng (Southwest Medical University); Xuelian Li (Southwest Medical University);*
- 00:00 A Method for Enhancing the Self-ignition of Atmospheric Pressure Microwave Plasma by Using Porous Silicon Carbide  
*Wenqi Chen (China West Normal University); Kama Huang (Sichuan University);*
- 00:00 Metamaterial-assisted Impedance Compression for High-efficiency Microwave Heating of Dynamic Dielectric Loads  
*Fengming Yang (Chengdu University of Technology);*
- 00:00 Multiphysics Coupling Simulation of Microwave-assisted Pyrolysis of Low-rank Coal  
*Lin Gao (Taiyuan University of Science and Technology); Wenyan Tian (Taiyuan University of Science and Technology); Jiaming Shi (Taiyuan University of Science and Technology);*

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**Session 3P6**

**Principles and Mechanisms in Microwave Chemistry**

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**Thursday PM, July 30, 2026**

**Room 6 - CR 10**

Organized by Kama Huang

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- 00:00 Analysis of Thermal Runaway in Microwave Heating Chemical Reactions Based on the Coupling Degree  
*Xingpeng Liu (Chengdu Technological University); Ting Lei (Chengdu Technological University); Song Zhang (Chengdu Technological University); Dongdong Guo (Chengdu Technological University);*
- 00:00 An Impedance Matching Method for High-efficiency Heating in Rectangular Waveguide  
*Tao Hong (China West Normal University);*
- 00:00 Macrokinetic Models of Microwave Chemistry  
*Kama Huang (Sichuan University);*
- 00:00 Investigation of Non-invasive Deep-tissue Pathogen Inactivation Using Microwave Room-temperature Atmospheric Pressure Plasma Jet  
*Yutian Yu (Sichuan University); Kama Huang (Sichuan University); Li Wu (Sichuan University); Shuang Song (Sichuan University); Naoki Shinohara (Kyoto University);*

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**Session 3P8a**

**Reconfigurable and Programmable Metasurfaces: Physics and Applications 2**

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**Thursday PM, July 30, 2026**

**Room 8 - CR 11**

Organized by Jinhui Shi, Chunmei Ouyang, Wanying Liu

Chaired by Jinhui Shi

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- 00:00 Exceptional Points Evolved from Bound States in the Continuum  
Invited  
*Lei Wang (Nanjing University); Caihong Zhang (Nanjing University); Kebin Fan (Nanjing University); Jingbo Wu (Nanjing University); Biaobing Jin (Nanjing University); Jian Chen (Nanjing University); Peiheng Wu (Nanjing University);*
- 00:00 Dynamic Reconfigurable Metasurface Based on the Congener Dipoles Huygens Elements  
*Shicheng Wan (Harbin Engineering University); Ekaterina E. Maslova (ITMO University); Mikhail V. Rybin (ITMO University); Jinhui Shi (Harbin Engineering University);*
- 00:00 Spin Topological Photonic Crystal Devices for On-chip Terahertz 6G Communication  
*Yu Zhang (Tianjin University); Hongyi Li (Tianjin University); Chunmei Ouyang (Tianjin University);*
- 00:00 High-order Photonic Degeneracy Enables Topological Reconfiguration in Bound States in the Continuum  
Invited  
*Zhenchu Fu (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Yang Chen (University of Science and Technology of China); Fulong Shi (National University of Singapore); Andrea Alù (The City University of New York); Cheng-Wei Qiu (National University of Singapore); Xiaoshuang Chen (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Wei Lu (Shanghai Institute of Technical Physics, Chinese Academy of Sciences); Guanhai Li (University of Chinese Academy of Sciences);*
- 00:00 Recent Advances in GST-based Photonics: From Reconfigurable Metasurfaces to Active Optoelectronic Devices  
Invited  
*Mikhail V. Rybin (ITMO University);*
- 00:00 Dynamic Radiation Pattern Manipulation with a Tunable Nonlocal Metasurface  
Invited  
*Maksim Tumashov (Harbin Engineering University); Alexander Zhuravlev (ITMO University); Xuchen Wang (Harbin Engineering University); Stanislav B. Glybovski (ITMO University);*
- 00:00 Full-space Electromagnetic Control Based on Multifunctional Metasurfaces  
Invited  
*Tingting Lv (Harbin Engineering University); Enhui Cui (Northeast Petroleum University); Bing Yu (Northeast Petroleum University); Jinhui Shi (Harbin Engineering University);*
- 00:00 Active Reconfigurable Intelligent Surface Design  
*Min Li (Tianjin University);*

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**Session 3P8b**

**Intelligent Design and Intelligent Control of Electromagnetic Metamaterials**

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**Thursday PM, July 30, 2026**

**Room 8 - CR 11**

Organized by Ruichao Zhu, Weihai Li

Chaired by Ruichao Zhu, Weihai Li

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- 00:00 Brain Space Time Coding Metasurface for Secure Wireless Interaction  
Invited  
*Qiang Xiao (City University of Hong Kong);*
- 00:00 Metamaterial-based Designs of Intelligent Electromagnetic Control and Flexible Systems  
*Weihai Li (University of Macau); Wenxuan Tang (Southeast University); Shaodan Ma (University of Macau);*
- 00:00 Deep-learning-enabled Inverse Design of Symmetry-engineered Geometric-phase Meta-atoms  
*Kai Qu (Nanjing University); Ke Chen (Nanjing University); Yijun Feng (Nanjing University);*
- 00:00 Phase-preserving Electromagnetic Transparency via Field Manipulation in Metamaterials  
*Zhihui Zhang (Air Force Engineering University); Xin Wang (Air Force Engineering University); Min Zhou (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*

- 00:00 Artificial Intelligence-driven Rapid Design Method of Metamaterials  
*Ruichao Zhu (Air Force Engineering University); Weisheng Zhang (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 A Retrieval-augmented Generation Method Based on Multi-engine, Multi-strategy, and Multi-source Heterogeneous Knowledge Bases  
*Jia-Wei Ren (Beijing Foreign Studies University); Zuowen Li (Beijing Foreign Studies University); Jian Li (Beijing Foreign Studies University); Juncai Dai (Beijing Foreign Studies University);*
- 00:00 Multispectral Digital Camouflage Metasurface Design Based on Reinforcement Learning and Structural Pixelation  
*Huiting Sun (Air Force Engineering University); Ruichao Zhu (Air Force Engineering University); Jun Wang (Air Force Engineering University); Yuzi-ang Jia (Air Force Engineering University); Leyan Li (Air Force Engineering University); Peizhou Hu (Air Force Engineering University); Yang Yu (Air Force Engineering University); Yujuan Wei (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 An Optically Transparent Reconfigurable Metasurface with Joint Amplitude and Phase Modulations  
*Zuntian Chu (Air Force Engineering University); Xinqi Cai (Air Force Engineering University); Tiefu Li (Air Force Engineering University); Ruichao Zhu (Air Force Engineering University); Huiting Sun (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 A Study of DNN-based Design Methods for TTO Devices  
*Zhang Heng (National University of Defense Technology);*
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- Session 3P9**  
**Nonlinear, Topological Metamaterials and beyond 1 & 2**
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- Thursday PM, July 30, 2026**  
**Room 9 - CR 12**  
Organized by Yu Luo, Zhuo Li  
Chaired by Hao Hu
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- 00:00 Emergence and Ultrafast Modulation of Optically Induced Quasi-bound States in the Continuum Resonances  
*Keynote Stefan Alexander Maier (Monash University);*
- 00:00 Elastic Multi-dimensional Security for Wireless Communications Using Space-time Modulated Metamaterial  
*Yujie Liu (Nanjing University of Aeronautics and Astronautics); Xiaojian Fu (Southeast University);*
- 00:00 Broadband and Low-loss TE-pass Polarizer with High Fabrication Tolerance Using a Hybrid Plasmonic Waveguide on LNOI  
*Invited Songyan Hou (Xidian University);*
- 00:00 Integrated Broadband Nonlinear Optical Devices via Conformal Transformation Optics  
*Invited Chunyu Huang (Nanjing University of Aeronautics and Astronautics); Yu Luo (Nanjing University of Aeronautics and Astronautics); Hui Liu (Nanjing University);*
- 00:00 Casimir Force Variation Induced by Longitudinal Modes in Nonlocal Metals and Polar Dielectrics  
*Jieran Chen (Nanjing University of Aeronautics and Astronautics); Youxiu Yu (Nanjing University of Aeronautics and Astronautics); Dongliang Gao (Soochow University); Hao Hu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Hot-electron Super-generators Enabled by Fano Plasmonic Coupling  
*Peihang Li (Tsinghua University); Yue Li (Tsinghua University);*
- 00:00 Plasmonic-enhanced Second Harmonic Generation of van der Waals Structures  
*Invited Hong Liu (Agency for Science, Technology and Research (A\*STAR));*
- 00:00 Nonlinear Metasurface for HPM Protection Applications  
*Invited Meijun Qu (National Key Laboratory of Scattering and Radiation);*
- 00:00 Topological Aspects of Time Photonic Crystals with Chiral Symmetry  
*Invited Yukun Yang (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Electromagnetic Vectoriality Beyond Polarization  
*Invited Wei Liu (National University of Defense Technology);*
- 00:00 Passive Non-reciprocal Metasurfaces Based on Independently Tunable Nonlinear Dual Bound States in the Continuum  
*Invited Ye Fan (Sun Yat-sen University); Shubin Zhang (Sun Yat-sen University); Meixue Zong (Sun Yat-sen University); Yiqing Liu (Sun Yat-sen University); Jinwen Lv (Sun Yat-sen University); Zhengji Xu (Sun Yat-sen University);*
- 00:00 Reconfigurable Finite Barrier Bound States in Lithium Niobate-based Photonic Crystals  
*Yiru Du (Nanjing University of Aeronautics and Astronautics); Zhixiong Xie (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics);*
- 00:00 Quantitative Optical Identification of Chemical Liquids Enabled by Metasurface-generated Vortex Wavefronts  
*Invited Hongliang Li (Chinese Academy of Sciences, Suzhou Institute of Nano-Tech and Nano-Bionics); Yuting Zhou (Tsinghua University); Xuechao Yu (Suzhou Institute of Nano-Tech and Nano-Bionics); Xun Guan (Tsinghua University);*

00:00 Coherent Manipulation of Second Harmonic Generation  
Invited from Bilayer Meta-grating with Radiation Asymmetry  
*Ma Luo (Guangdong Polytechnic Normal University);*

00:00 All-dielectric Metasurface Enabling Wavefront Manipulation Based on Two-photon Polymerization 3D Printing  
*Demin Ni (Nanjing University of Aeronautics and Astronautics); Junkai Jiang (Nanjing University of Aeronautics and Astronautics); Yu Luo (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics);*

00:00 Metasurface Antennas-RIS Coordinated Communication for Complex Electromagnetic Environments in Coal Mines  
*Wang Yao (Xi'an University of Science and Technology); Xiaojun Huang (Xi'an University of Science and Technology);*

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**Session 3P10a**  
**Optical Manipulation and Its Applications 2**

**Thursday PM, July 30, 2026**

**Room 10 - CR 13**

Organized by Jack Ng, Jun Chen, Xiao Li

Chaired by Xiao Li, Jack Ng

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00:00 Sub-femtonewton Force Sensing and Super-resolved Temperature Measuring  
Invited  
*Fan Wang (Beihang University);*

00:00 Optical Forces and Torques Unique to Structured Light  
Invited  
*Xiaohao Xu (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*

00:00 Skyrmionic Optical Forces for Stable Separation and Transportation of Chiral Nanoparticles  
Invited  
*Peng Shi (Shenzhen University);*

00:00 Optical Manipulation Based on Metasurfaces  
Invited  
*Tianyue Li (The Hong Kong University of Science and Technology);*

00:00 The Optical Forces Modulated by Electromagnetic Hybridization and Coupling  
*Xiaoyong Duan (Jiaxing University);*

00:00 Universal Parity and Duality Asymmetries-based Optical Force/Torque Framework  
*Hongxia Zheng (Guangxi University of Science and Technology); Xu Yuan (Guangxi University of Science and Technology); Jiquan Wen (Guangxi University of Science and Technology); Xiaoshu Zhao (Fudan University); Huajin Chen (Guangxi University of Science and Technology); Xiaohao Xu (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Xiao Li (Southern University of Science and Technology); Jack Ng (Southern University of Science and Technology); Zhifang Lin (Fudan University);*

00:00 Time-reversal Invariant Topological Photonic Alloy  
*Ruili Feng (Shanxi University); Lei Zhang (Shanxi University); Jun Chen (Shanxi University);*

00:00 Rotational Optomechanics with Structured Transverse Orbital Angular Momentum Light  
*Yanhui Hu (ETH Zurich);*

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**Session 3P10b**  
**Optical Metasurface for Multi-dimensional Light Manipulation and Novel Response**

**Thursday PM, July 30, 2026**

**Room 10 - CR 13**

Organized by Maowen Song

Chaired by Maowen Song

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00:00 Metalens Based High-resolution Microscopy  
Invited  
*Gang Chen (Chongqing University);*

00:00 Optical Metasurface for Multi-dimensional Light Manipulation and Imaging  
Invited  
*Yinghui Guo (Institute of Optics and Electronics, Chinese Academy of Sciences);*

00:00 Spatial Light Modulator via Optically Addressed Metasurface  
Invited  
*Hui Gao (Huazhong University of Science and Technology);*

00:00 Dielectric Metasurfaces for Compact Optical Imaging  
Invited  
*Mingze Liu (Nanjing University);*

00:00 Long Focus Depth Dammann Grating  
Invited  
*Wei Zhang (Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences);*

00:00 Asymmetric Electromagnetic Manipulation via Multi-layered Janus Metasurfaces  
Invited  
*Yijia Huang (Sichuan Normal University);*

00:00 Geometry-robust high-Q Resonances via Guided Mode Metasurface  
*Chaoyang Wang (Eastern Institute of Technology); Jiaju Wu (Hangzhou Dianzi University); Kang Zhou (Eastern Institute of Technology);*

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**Session 3P11a**  
**Bound States in the Continuum-fundamentals and Applications 2**

**Thursday PM, July 30, 2026**

**Room 11 - CR 15**

Organized by Lujun Huang, Jiajun Wang

Chaired by Lujun Huang, Jiajun Wang

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- 00:00 Complex Band Structure and Bound States in the Continuum  
Invited  
*Dezhuan Han (Chongqing University);*
- 00:00 Topological Charge Lasing Based on Bound States in the Continuum  
*Xinhao Wang (Fudan University); Zhaochen Wu (Fudan University); Jiajun Wang (Fudan University); Lei Shi (Fudan University); Jian Zi (Fudan University);*
- 00:00 Chiral Ring Vortex Emission Enabled by Valley-Spin-Orbit Locking in Mini-BIC Modes  
*Xin Zhang (Jinan University); Xiangping Li (Jinan University); Zi-Lan Deng (Jinan University);*
- 00:00 Coherent Thermal Emissions with Vectorial Polarizations  
*Kaili Sun (Shandong Normal University); Zhanghua Han (Shandong Normal University);*
- 00:00 Photonic Neuromorphic Computing Enabled by a BIC Metasurface  
Invited  
*Haijun Tang (Harbin Institute of Technology); Qinghai Song (Harbin Institute of Technology); Can Huang (Harbin Institute of Technology);*
- 00:00 Magnetic-field-induced Topological Properties of Bound States in the Continuum in Momentum and Real Space  
*Xingqi Zhao (Fudan University); Jiajun Wang (Fudan University); Lei Shi (Fudan University); Jian Zi (Fudan University);*
- 00:00 Tunable Coupling Strength of Quasi-bound States in the Continuum in All-dielectric Metasurfaces  
Invited  
*Guangyuan Li (Beijing Institute of Technology); Rixing Huang (Beijing Institute of Technology); Zhiyu Chang (Beijing Institute of Technology); Zhenrong Zhang (Guangxi University);*
- 00:00 Narrowband Absorber Based on Dielectric-Mxene Hybrid BIC Metasurface  
*Shubhanshi Sharma (Indian Institute of Technology Kharagpur); Monica Pradhan (Indian Institute of Technology Kharagpur); Aviad Katiyi (Ben-Gurion University of the Negev); Alina Karabchevsky (Ben-Gurion University of the Negev); Shailendra Kumar Varshney (Indian Institute of Technology Kharagpur);*
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- Session 3P11b**  
**Technologies and Applications of Terahertz Metamaterials**
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- Thursday PM, July 30, 2026**  
**Room 11 - CR 15**  
Organized by Haotian Ling, Yifei Zhang  
Chaired by Haotian Ling, Yifei Zhang
- 
- 00:00 All-Dielectric High-Resistivity Silicon Terahertz Metasurfaces: Spin-Decoupled Polarization and Vector-Beam Control  
*Yuehong Xu (Aerospace Information Technology University); Xueqian Zhang (Tianjin University); Quan Xu (Tianjin University); Huifang Zhang (Shenzhen Institute for Advanced Study, University of Electronic Science and Technology of China); Mingguai Wei (Nanyang Technological University); Hiroaki Minamide (RIKEN); Jianguang Han (Tianjin University);*
- 00:00 Dielectric Terahertz Metasurfaces for Simultaneous Polarization Selection and Wavefront Shaping  
*Huifang Zhang (Shenzhen Institute for Advanced Study, University of Electronic Science and Technology of China); Xiaoyuan Hao (Guilin University of Electronic and Technology); Zhanqiang Xue (Southern University of Science and Technology); Lehui Wang (Tianjin University); Longqing Cong (Southern University of Science and Technology); Xueqian Zhang (Tianjin University); Bo Zhang (Shenzhen Institute for Advanced Study, University of Electronic Science and Technology of China); Jianguang Han (Tianjin University);*
- 00:00 A High-sensitivity Multi-band Terahertz Sensor for Refractive Index and Temperature Based on Spoof Surface Plasmon Polaritons  
*Ruiqi Zhao (Qilu Aerospace Information Research Institute, Chinese Academy of Sciences); Haotian Ling (Qilu Aerospace Information Research Institute (AIR), Chinese Academy of Sciences (CAS)); Yu Feng (Qilu Aerospace Information Research Institute, Chinese Academy of Sciences); Shumeng Wang (Aerospace Information Technology University (AITech)); Yuehong Xu (Aerospace Information Technology University); Xudong Zou (Qilu Aerospace Information Research Institute, Chinese Academy of Sciences);*
- 00:00 Angle-scanning and Size-scaling Pixelated Quasi-BIC Metasurface Array for Broadband Terahertz Fingerprint Biosensing  
*Mengya Pan (Shandong University); Haotian Ling (Aerospace Information Technology University); Dongjian Xin (University of Jinan); Xijian Zhang (Shandong University); Yanping Shi (Shandong University); Yifei Zhang (Shandong University);*
- 00:00 Terahertz EIT Metasurfaces Based on Liquid Crystal Polymer Film  
*Mengyuan Han (Shandong Normal University); Haotian Ling (Aerospace Information Technology University); Xinjie Wang (Shandong University); Yuehong Xu (Aerospace Information Technology University); Jianping Qiao (Shandong Normal University); Yifei Zhang (Shandong University);*
- 00:00 Reconfigurable Terahertz Metasurfaces with Graphene  
*Yifei Zhang (Shandong University);*

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**Session 3P12a**  
**Quantum Information Processing Assisted**  
**Quantum Sensing**

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**Thursday PM, July 30, 2026**

**Room 12 - CR 16**

Organized by Jinxian Guo, Xingchang Wang

Chaired by Jinxian Guo

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00:00 Super-resolving Frequency Sensing via Mode-selective  
Invited Quantum Memory

*Shicheng Zhang (Imperial College London); Aonan Zhang (Imperial College London); Ilse Maillette De Buy Wenniger (Imperial College London); Paul M. Burdekin (Imperial College London); Steven Sagona-Stophel (Imperial College London); Anindya Rastogi (Imperial College London); Sarah E. Thomas (Imperial College London); Ian A. Walmsley (Imperial College London);*

00:00 Receiving of the Enhanced Loran Time Service Signals  
Invited Based on Rydberg Atoms

*Mingtao Cao (National Time Service Center, Chinese Academy of Sciences); Ziyi Qin (National Time Service Center, Chinese Academy of Sciences); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences); Shougang Zhang (National Time Service Center, Chinese Academy of Sciences);*

00:00 High-performance Cold-atom Quantum Memory

Invited

*Yunfei Wang (South China Normal University);*

00:00 Quantum-memory-enhanced Metrology — Spectral Superresolution and Electrometry Robust Against Detection Losses

Invited

*Mateusz Mazelanik (University of Warsaw); S. Kurzyna (University of Warsaw); B. Niewelt (University of Warsaw); W. Wasilewski (University of Warsaw); R. Demkowicz-Dobrzanski (University of Warsaw); M. Parniak (University of Warsaw);*

00:00 Reaching Heisenberg Scaling in Optical Magnetometry  
Invited with Measurement-induced Correlations as a Quantum Resource

*Georg Engelhardt (International Quantum Academy);*

00:00 Quantum-enhanced Sensing Enabled by Scrambling-induced Genuine Multipartite Entanglement

*Guantian Hu (Nanjing University); Wenxuan Zhang (International Quantum Academy); Zihua Chen (Jimei University); Liuzhu Zhong (International Quantum Academy); Jingchao Zhao (International Quantum Academy); Chilong Liu (International Quantum Academy); Zixing Liu (International Quantum Academy); Yue Xu (International Quantum Academy); Yongchang Lin (International Quantum Academy); Yougui Ri (International Quantum Academy); Guixu Xie (International Quantum Academy); Mingze Liu (International Quantum Academy); Haolan Yuan (International Quantum Academy); Yuxuan Zhou (International Quantum Academy); Yu Zhang (Nanjing University); Chang-Kang Hu (International Quantum Academy); Song Liu (International Quantum Academy); Dian Tan (International Quantum Academy); Dapeng Yu (International Quantum Academy);*

00:00 Memory-assisted Nonlocal Interferometer Towards Long-baseline Telescopes

*Bin Wang (University of Science and Technology of China); Xi-Yu Luo (University of Science and Technology of China);*

00:00 Hybrid Quantum Network for Sensing in the Acoustic Frequency Range

*Jun Jia (University of Copenhagen);*

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**Session 3P12b**  
**Quantum Photonics**

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**Thursday PM, July 30, 2026**

**Room 12 - CR 16**

Organized by Xiaosong Ma, Qin Wang

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00:00 Single-shot Phase Quadrature Measurements with Hybrid Nonlinear Interferometry

*Marthe Zeja (Humboldt-Universität zu Berlin); Sven Ramelow (Humboldt-Universität zu Berlin);*

00:00 Polaritonic-mediated Attractive Interaction and Protected Two-electron States in Low-dimensional Semiconductors

*Andrea Alessandrini (The Barcelona Institute of Science and Technology); Valerio Di Giulio (Max Planck Institute for Multidisciplinary Sciences); F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology);*

00:00 Quantum Teleportation from Telecom Photons to Erbium-ion Ensembles

*Yuyang An (Nanjing University); Qian He (Nanjing University); Wenyi Xue (Nanjing University); Ming-Hao Jiang (Nanjing University); Chengdong Yang (Nanjing University); Yan-Qing Lu (Nanjing University); Shi-Ning Zhu (Nanjing University); Xiaosong Ma (Nanjing University);*

- 00:00 Experimental Demonstration of Chip-based Quantum Key Distribution with Uncharacterized Sources over 300 Kilometers  
*Jiali Zhu (Nanjing University of Posts and Telecommunications); Hua-Jian Ding (Nanjing University of Posts and Telecommunications); Xing-Yu Zhou (Nanjing University of Posts and Telecommunications); Qin Wang (Nanjing University of Posts and Telecommunications);*
- 00:00 Non-classical Intensity Correlations of Raman Light Propagating through Optical Waveguide  
*Ivan V. Panyukov (Moscow Institute of Physics and Technology); Evgeny S. Andrianov (Dukhov Research Institute of Automatics (VNIIA));*
- 00:00 Quantum Computers Go High-dimensional  
*Xiaoqin Gao (Nanjing University);*
- 00:00 Topological and Quantum Physics in Optomechanics  
*Haitan Xu (Nanjing University);*

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**Session 3P13a**

**Quantum Secure Communication and Its Beyond**

**Thursday PM, July 30, 2026**

**Room 13 - CR 17**

Organized by Yun-Ru Fan, Guan-Jie Fan-Yuan

Chaired by Yun-Ru Fan

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- 00:00 On-chip Optical Memory Enabled by Bound States in the Continuum — A Silicon-Erbium Hybrid Platform  
*Yu-Hui Chen (Beijing Institute of Technology);*
- 00:00 Efficient and Broadband Quantum Frequency Comb Generation in a Monolithic AlGaAs-on-insulator Microresonator  
*Xiaodong Zheng (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Xu Jing (Nanjing Normal University); Chenbo Liu (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Yufu Li (Nanjing Electronic Devices Institute); Runqiu He (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Lina Xia (Nanjing Normal University); Fei Wang (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Yuechan Kong (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Tangsheng Chen (Nanjing Electronic Devices Institute); Jiayun Dai (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Lian-gliang Lu (Nanjing Normal University); Bin Niu (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute);*
- 00:00 Photon Pairs Generation Based on Cascaded PPLN Waveguides  
*Chen-Zhi Yuan (Wuhan Institute of Technology); Mei-Mei Wang (Wuhan Institute of Technology); Rui-Bo Jin (Hunan Normal University);*

- 00:00 Quantum-enhanced Optical Time-domain Reflectometer for Hollow-core Fiber Testing  
*Qi Zhang (Tianfu Jiangxi Laboratory);*
- 00:00 Quantum Teleportation over Hollow-core Fiber Links  
*Qiang Zhou (University of Electronic Science and Technology of China);*
- 00:00 On-chip Time-bin to Path Encoding Converter via Thin-film Lithium Niobate Photonics Chip  
*Xiaosong Ren (Tsinghua University); Xiaotong Zou (Tsinghua University); Xiaole Zhang (Tsinghua University); Wei Zhang (Tsinghua University);*
- 00:00 Millimeter-accuracy 3D Quantum Correlation Imaging of Targets  
*Si Shen (Southwest Institute of Technical Physics); Jiandong Chen (Southwest Institute of Technical Physics); Zichang Zhang (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Shijie Deng (Southwest Institute of Technical Physics); Qiang Xu (Southwest Institute of Technical Physics); Jing Qiu (Southwest Institute of Technical Physics); Shuai Huang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*
- 00:00 Certified Randomness from Uncharacterized Source and Measurement  
*Xing Lin (University of Hong Kong); Rong Wang (The University of Hong Kong); Zhen Qiang Yin (University of Science and Technology of China); Shuang Wang (University of Science and Technology of China);*
- 00:00 High Temperature Superconducting Nanowire Single Photon Detector Based on Magnesium Diboride  
*Xiaofu Zhang ();*

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**Session 3P13b**

**Quantum Networking and Related Topics**

**Thursday PM, July 30, 2026**

**Room 13 - CR 17**

Organized by Jiefei Chen, Ying Zuo

Chaired by Jiefei Chen, Ying Zuo

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- 00:00 A High-performance Quantum Memory for Quantum In-Invited terconnects  
*Chang Li (South China Normal University);*
- 00:00 Quantum Skyrmion Generation and High-dimensional Invited Memory in a Cold-atom Platform  
*Chengyuan Wang (Xi'an Jiaotong University); Xin Yang (Xi'an Jiaotong University); Jinwen Wang (Xi'an Jiaotong University); Hong Gao (Xi'an Jiaotong University); Yun Chen (Huzhou University);*

- 00:00 Distributed Multi-parameter Quantum Metrology with a Superconducting Quantum Network  
*Jiajian Zhang (International Quantum Academy); Lingna Wang (International Quantum Academy); Yong-Ju Hai (International Quantum Academy); Jiawei Zhang (International Quantum Academy); Ji Chu (International Quantum Academy); Ji Jiang (International Quantum Academy); Wenhui Huang (International Quantum Academy); Yongqi Liang (International Quantum Academy); Jiawei Qiu (International Quantum Academy); Xuandong Sun (International Quantum Academy); Ziyu Tao (International Quantum Academy); Libo Zhang (International Quantum Academy); Yuzuan Zhou (International Quantum Academy); Yuanzhen Chen (International Quantum Academy); Weijie Guo (International Quantum Academy); Xiayu Linpeng (International Quantum Academy); Song Liu (International Quantum Academy); Wenhui Ren (International Quantum Academy); Youpeng Zhong (International Quantum Academy); Jingjing Niu (International Quantum Academy); Haidong Yuan (International Quantum Academy); Dapeng Yu (International Quantum Academy);*
- 00:00 Quantum Network States and Its Application in Quantum Metrology  
Invited *Zhen-Peng Xu (Anhui University);*
- 00:00 Efficient Integrated Quantum Memory for Light  
Invited *Min Jing (University of Science and Technology of China); Ruo-Ran Meng (University of Science and Technology of China); Xiao Liu (University of Science and Technology of China); Zhong-Yang Tang (University of Science and Technology of China); Zong-Quan Zhou (University of Science and Technology of China); Chuan-Feng Li (University of Science and Technology of China, CAS); Guang-Can Guo (University of Science and Technology of China);*
- 00:00 Fiber-integrated Quantum Frequency Conversion for Remote Quantum Networks  
Invited *Zhichuan Liao (Beijing Academy of Quantum Information Sciences); Ao Shen (Beijing Academy of Quantum Information Sciences); Lai Zhou (Beijing Academy of Quantum Information Sciences); Nan Jiang (Beijing Normal University); Zhiliang Yuan (Beijing Academy of Quantum Information Sciences);*
- 00:00 Realization of Dual Type Encoding Protocol in Ion Traps for Quantum Information Processing  
Invited *Zichao Zhou (Tsinghua University);*
- 00:00 Distributed Quantum Codes as Quantum Sensors for Chip-level Catastrophic Errors  
Invited *Xiu-Hao Deng (International Quantum Academy); Song Zhang (International Quantum Academy); Guixu Xie (Southern University of Science and Technology); Jinghan Lu (Southern University of Science and Technology);*

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**Session 3P14a**  
**Advancing Photonics with Gender Diversity**

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**Thursday PM, July 30, 2026**

**Room 14 - VIP R5**

Organized by Yiwei Xie, Shuxia Guo

Chaired by Shuxia Guo

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- 00:00 Raman Microscopy and Spectroscopy for Biomedical Applications  
Invited *Jing Huang (South China Normal University);*
- 00:00 Label-free Infrared Spectroscopy for Early Detection of Pediatric Lipid Metabolism Disorders  
*Leiyang Xie (Zhejiang University); Yingke Xu (Zhejiang University);*
- 00:00 Machine Learning and Deep Learning Approaches for Raman Spectral Analysis  
Invited *Jamile Jafari (Leibniz Institute of Photonic Technology); Thomas Bocklitz (Leibniz Institute of Photonic Technology);*
- 00:00 Degradation Compensation for Single-pixel Imaging in Practical Scenarios  
Invited *Zihan Geng (Tsinghua University);*
- 00:00 Compact and Broadband Thin-film Lithium Niobate Fast Quasi-adiabatic Devices  
Invited *Ya Han (Guangdong University of Technology); Mingxiu Yuan (Guangdong University of Technology); Chi Chen (Guangdong University of Technology); Songnian Fu (Guangdong University of Technology); Yuwen Qin (Guangdong University of Technology);*
- 00:00 Transferable Modelling in Raman Spectroscopy  
Invited *Shuxia Guo (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Thomas Bocklitz (Leibniz Institute of Photonic Technology);*
- 00:00 Correlative Photothermal Infrared Imaging of Amyloids in Cells and Tissues  
Invited *Oxana Klementieva (Lund University);*

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**Session 3P14b**  
**Meeting of Minds for Cross-continental Collaboration in Photonics and Electromagnetics**

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**Thursday PM, July 30, 2026**

**Room 14 - VIP R5**

Organized by Hugo Enrique Hernandez-Figueroa, Sailing He

Chaired by Hugo Enrique Hernandez-Figueroa, Sailing He

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- 00:00 Bound States in the Continuum in Dielectric Metasurfaces: From Fundamental Physics to Advanced Functionalities  
*Mikhail V. Rybin (ITMO University);*

00:00 Advanced Optical Sensing and Applications  
Sailing He (*Royal Institute of Technology & Zhejiang University*);

00:00 Electromagnetic Sensing of Living Systems: Neural Activity Inference Using Photonic Biosensors and Radar-inspired Techniques  
Hugo Enrique Hernandez-Figueroa (*University of Campinas (UNICAMP)*);

00:00 Highly Pure Chiral Emission via Planar Chiral Metasurfaces  
Yi Jin (*Zhejiang University*);

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### Session 3P15

#### Advances in Solar-blind Deep Ultraviolet Detectors and Ga<sub>2</sub>O<sub>3</sub> Optoelectronic Devices

Thursday PM, July 30, 2026

Room 15 - CR 18

Organized by Daoyou Guo, Jun Hu

Chaired by Daoyou Guo

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00:00 Luminescent Characteristics of Rare-earth-doped Oxide  
Invited Thin Films toward Full-color LED Applications  
Qixin Guo (*Saga University*);

00:00 Recent Process in Ultra-wide Bandgap Semiconductor  
Invited Gallium Oxide Materials and Devices  
Weihua Tang (*Nanjing University of Posts and Telecommunications*);

00:00 Insight into Giant External Quantum Efficiency in  
Invited Ga<sub>2</sub>O<sub>3</sub> Schottky Photodiodes  
Xinyi Pei (*Nanjing University*); Jiandong Ye (*Nanjing University*); Fang-Fang Ren (*Nanjing University*);

00:00 Interfacial Barrier Engineering for High-performance  
Invited Ga<sub>2</sub>O<sub>3</sub> Solar-blind Photodetectors  
Dianmeng Dong (*Beijing University of Posts and Telecommunications*); Zhenping Wu (*Beijing University of Posts and Telecommunications*);

00:00 Defect Engineering and Heterostructure Design of Ultra-wide Bandgap Gallium Oxide for High-performance  
Invited Deep Ultraviolet Photodetectors  
Wenrui Zhang (*Ningbo Institute of Materials Technology and Engineering, CAS*); Dongyan Han (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); Jianguo Zhang (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); Xiaoli Zhang (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); Ningtao Liu (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); Jichun Ye (*Ningbo Institute of Material Technology and Engineering, Chinese Academy of Sciences*);

00:00 Performance Regulation and Applications of GaN-based  
Invited Heterostructure Ultraviolet Photodetectors  
Guofeng Yang (*Jiangnan University*); Huazhen Sun (*Jiangnan University*); Xinyi Shan (*Jiangnan University*);

00:00 Advanced Heterogeneous Integration and Multi-physical  
Invited Field Coupling in Wide-bandgap Semiconductor Optoelectronics  
Jun Hu (*Zhejiang University*);

00:00 Bio-hydrovoltaic Solar-blind Ultraviolet Photodetector  
Invited  
Qichang Hu (*Fujian Agriculture and Forestry University*); Wei Wang (*Fujian Agriculture and Forestry University*);

00:00 Anisotropic  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> Based Direction-evolved Axon-multi-synapse Devices: Fabrication and Applications  
Chao Wu (*Zhejiang Sci-Tech University*); Daoyou Guo (*Zhejiang Sci-Tech University*);

00:00 Magnetron Sputtered Ultra-wide Bandgap Semiconductor  
Invited GeO<sub>2</sub> Films towards 213-nm Solar Blind Photodetection  
Xu Wang (*Ningbo University*); Ziyu Li (*Ningbo University*); Chen Guo (*Ningbo University*); Shuxian Zang (*Ningbo University*); Xingyu Liu (*Ningbo University*); Yang Chen (*Ningbo University*);

00:00 Solar-blind Enhanced Dual-band Ultraviolet Photodetector Based on Ga<sub>2</sub>O<sub>3</sub>/(Al<sub>x</sub>Ga<sub>1-x</sub>)<sub>2</sub>O<sub>3</sub>/GaN Heterojunction  
Yuefei Wang (*Northeast Normal University*); Bingsheng Li (*Northeast Normal University*); Yichun Liu (*Northeast Normal University*);

00:00 Robust Polycrystalline Ga<sub>2</sub>O<sub>3</sub> Deep Ultraviolet Photodetectors for Extreme Environment Applications  
Hong Huang (*University of Science and Technology of China*); Bei Yao (*University of Science and Technology of China*); Haoran Yin (*University of Science and Technology of China*); Qingping Geng (*University of Science and Technology of China*); Xiaolong Zhao (*University of Science and Technology of China*); Xiaohu Hou (*University of Science and Technology of China*); Shibing Long (*University of Science and Technology of China*);

00:00 Fermi-level Pinning-free Two-dimensional Hybrid MXene/ $\beta$ -Ga<sub>2</sub>O<sub>3</sub> van der Waals Polarization-sensitive Schottky Photodiodes

*Lei Li (Nanjing University of Posts and Telecommunications); Suhao Yao (Nanjing University of Posts and Telecommunications); Yingxu Wang (Nanjing University of Posts and Telecommunications); Xiangxi Meng (Nanjing University of Posts and Telecommunications); Jia-Han Zhang (Nanjing University of Posts and Telecommunications); Shaohui Zhang (Nanjing University of Posts and Telecommunications); Jie Huang (Nanjing University of Posts and Telecommunications); Daoyou Guo (Nanjing University of Posts and Telecommunications); Shan Li (Nanjing University of Posts and Telecommunications); Xueqiang Ji (Nanjing University of Posts and Telecommunications); Weihua Tang (Nanjing University of Posts and Telecommunications); Zeng Liu (Nanjing University of Posts and Telecommunications);*

00:00 Research on Emerging Self-powered Gallium Oxide Photoelectrochemical Devices and Applications

*Kai Chen (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);*

00:00 Growth Temperature-regulated Phase Transition from  $\alpha$  to  $\epsilon$  of Metastable Ga<sub>2</sub>O<sub>3</sub> Films by Mist Chemical Vapor Phase Deposition

Invited *Gaofeng Deng (Ningbo Institute of Materials Technology and Engineering, CAS);*

00:00 Epitaxial Growth of  $\alpha$ -(AlGa)<sub>2</sub>O<sub>3</sub> Films for Deep Ultra-violet Optoelectronic Devices

*Zewei Chen (Institute of Semiconductors, Chinese Academy of Sciences); Yanan Guo (Institute of Semiconductors, Chinese Academy of Sciences); Junxi Wang (Institute of Semiconductors, Chinese Academy of Sciences); Jianchang Yan (Institute of Semiconductors, Chinese Academy of Sciences);*

00:00 The Role of Defects on Multiphoton Photodetection in Widebandgap Photodetectors

*B. Zhang (Southern University of Science and Technology); J. Zhong (Southern University of Science and Technology); Khadga Jung Karki (Guangdong Technion-Israel Institute of Technology);*

00:00 In Vitro Antibacterial Effect of Long-term Irradiation with 310 nm Ultraviolet Light-emitting Diode on Staphylococcus Aureus

*Yuheng Chen (Zhejiang Chinese Medical University); Jian Ye (Zhejiang University School of Medicine);*

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### Session 3P16

#### Early-career Researchers in Optics and Photonics: Frontier Sources, Materials, and Applications in Communication and Sensing 1 & 2

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Thursday PM, July 30, 2026

Room 16 - CR 19

Organized by Tecla Gabbrielli, Jacopo Pelini, Zhen Wang

Chaired by Zhen Wang

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00:00 Quantum Phase Estimation with Integrated Photonics Invited Circuits

*Valeria Cimini (Sapienza University of Rome); M. Valeri (Sapienza University of Rome); E. Polino (Sapienza University of Rome); S. Piacentini (Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)); F. Ceccarelli (Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)); G. Corrielli (Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)); R. Osellame (Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)); N. Spagnolo (Sapienza University of Rome); F. Sciarrino (Sapienza University of Rome);*

00:00 High Saturation Regime Limit for Molecular Single-photon Sources

*Hugo Levy-Falk (National Institute of Optics (CNR-INO)); Daniele De Bernardis (National Institute of Optics (CNR-INO)); Elena Fanella (National Institute of Optics (CNR-INO)); Louise Morlaes (National Institute of Optics (CNR-INO)); Marco Arzilli (National Institute of Optics (CNR-INO)); Maja Colautti (National Institute of Optics, CNR-INO); Costanza Toninelli (National Institute of Optics, CNR-INO);*

00:00 Preparation and Characterization of Non-Gaussian Invited Quantum States of Motion in a Mechanical Resonator

*Matteo Fadel (ETH Zürich);*

00:00 Design and Optimization of a Vibration Insensitive Optical Ring Cavity for CQED Experiments

*Enlong Wang (National University of Defense Technology); Xiaojuan Mo (Hefei University of Technology); Sicheng Dai (Hefei University of Technology);*

00:00 Memory-based Quantum Networks: Prospects, Challenges, and New Efforts in Florence

*Emanuele Distante (Università degli Studi di Firenze); Maximilian Schemmer (European Laboratory for Non-linear Spectroscopy (LENS)); Natalia Bruno (European Laboratory for Nonlinear Spectroscopy (LENS));*

- 00:00 Enhanced Control of Single-molecules for Quantum Technologies  
*Maja Colautti (National Institute of Optics, CNR-INO); M.-A. Zommere (University of Latvia); R. Duquennoy (National Institute of Optics (CNR-INO)); S. Landreux (Institut d'Optique Graduate School, CNRS); Daniele De Bernardis (National Institute of Optics (CNR-INO)); J. Mony (National Institute of Optics, CNR-INO); L. Jin (Heidelberg University); W. Pernice (Heidelberg University); Costanza Toninelli (National Institute of Optics, CNR-INO);*
- 00:00 Unveiling Mid-infrared Radiation at the Standard Quantum Limit and Beyond for Sensing and Communication  
*Tecla Gabrielli (National Institute of Optics of the National Research Council — CNR-INO); Francesco Cappelli (CNR-INO, Istituto Nazionale di Ottica); Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Irene La Penna (CNR-INO — Istituto Nazionale di Ottica); Luigi Consolino (INO, Istituto Nazionale di Ottica — CNR); Cristina Rimoldi (Istituto Nazionale di Ottica (CNR-INO)); Simone Borri (CNR-INO, Istituto Nazionale di Ottica); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 Laser Spectroscopy Technologies for Deep Space Exploration and Their Applications  
*Nailiang Cao (Hefei Institutes of Physical Science, Chinese Academy of Sciences);*
- 00:00 QCL-based Self-mixing Platforms for Communication and Sensing  
*Chenghong Zhang (CNR-INO, National Institute of Optics); Tecla Gabrielli (National Institute of Optics of the National Research Council — CNR-INO); Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Francesco Cappelli (CNR-INO, Istituto Nazionale di Ottica); Paolo Vezio (LENS, European Laboratory for Non-Linear Spectroscopy); Stefano Dello Russo (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Mario Siciliani De Cumis (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Simone Borri (CNR-INO, Istituto Nazionale di Ottica); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 Optical Frequency Combs in Passive Cavities with Novel Dispersion  
*Carlo Silvestri (University of Sydney); C. Martijn de Sterke (University of Sydney); Antoine F. J. Runge (University of Sydney);*
- 00:00 Single-cavity Dual-comb Generation and Terahertz Spectroscopy  
*Jie Chen (Taiyuan University of Technology);*
- 00:00 In Situ High-precision Measurement of Deep-sea Dissolved Methane Based on Quartz-enhanced Photoacoustic Spectroscopy  
*Mai Hu (Hefei Institutes of Physical Science, Chinese Academy of Sciences);*
- 00:00 Direct Photoacoustic Measurements of Molecular Hydrogen at the Part-per-million Level  
*Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Stefano Dello Russo (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Marta Tonini (Politecnico di Milano — and IFN-CNR); Davide Gatti (Politecnico di Milano — and IFN-CNR); Chenghong Zhang (CNR-INO, National Institute of Optics); Guglielmo Vesco (Politecnico di Milano — and IFN-CNR); Maria Concetta Canino (INFN, Istituto Nazionale di Fisica Nucleare); Alberto Roncaglia (CNR-ISMN, The Institute for the Study of Nanostructured Materials of the National Research Council of Italy); Mario Siciliani De Cumis (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica); Marco Marangoni (Politecnico di Milano); Simone Borri (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 Integrated 1-Tb/s/ $\lambda$  Coherent Optical Transmission and Forward Vibration Sensing Using DFB Lasers with Combined Linewidth of 21.4 MHz  
*Yixiao Zhu (Shanghai Jiao Tong University); Chenbo Zhang (Peking University); Yi Zou (Peking University); Xiang Cai (Peking University); Xiansong Fang (Peking University); Jingjing Lin (Peking University); Xian Zhou (University of Science and Technology Beijing); Fan Li (Sun Yat-sen University); Zhangyuan Chen (Peking University); Xiaopeng Xie (Peking University); Weisheng Hu (Shanghai Jiao Tong University); Fan Zhang (Peking University);*
- 00:00 Cavity-enhanced Dual-comb Photoacoustic/Photothermal Spectroscopy for Gas Detection  
*Zhen Wang (Harbin Institute of Technology); Yue Yan (The Chinese University of Hong Kong); Wei Ren (The Chinese University of Hong Kong);*
- 00:00 Pushing the Limits of Brillouin Microscopy: High Spatiotemporal-resolution Sensing of Biomechanics  
*Fan Yang (Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences.);*
- 00:00 Graphene-based Integrated Microwave Photonics for the Next Generation Sub-THz Links  
*Alberto Montanaro (Consorzio Nazionale Interuniversitario per le Telecomunicazioni);*
- 00:00 Evidence of Squeezing in Semiconductor Lasers  
*Daniele Nello (Politecnico di Torino);*

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**Session 3P17a**
**Recent Advances in Optical Metasurfaces 2**


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**Thursday PM, July 30, 2026**
**Room 17 - CR 20**

Organized by Fei Ding, Cheng Zhang

 Chaired by Fei Ding
 

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- 00:00 Physical Unclonable Functions Based on Photonic Crystals  
Invited  
*Sen Li (ShanghaiTech University); Guanhong Wang (ShanghaiTech University); Lixian Ding (ShanghaiTech University); Yurui Qu (ShanghaiTech University);*
- 00:00 Recent Advances in Merging Transparency and Diffusion  
Invited  
*Hongchen Chu (Nanjing University); Jin Qin (Nanjing University); Jiatong Shi (Nanjing University); Xiangteng Li (Nanjing University); Xiaolong Wei (Nanjing University); Tao Yang (Nanjing University); Xiang Xiong (Nanjing University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University); Yun Lai (Nanjing University);*
- 00:00 Dual-wavelength Phase Decoupling Enabled by Complex Transmission Vector Optimization in Dielectric Metasurfaces  
Invited  
*Hongliang Li (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Yang Xiao (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences); Yuning Ye (Zhejiang University); Jisen Wen (Zhejiang University); Xuechao Yu (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences);*
- 00:00 Metasurface-enabled 3D Imaging and Sensing  
Invited  
*Hao Wang (Beihang University); Bochang Wu (Singapore University of Technology and Design);*
- 00:00 Chiral Emissions in Planar Chiral Metasurfaces with in-plane Symmetry Perturbation  
Invited  
*Xin Li (Jinan University); Pan Li (Jinan University); Meng-Xia Hu (Jinan University); Xin Zhang (Jinan University); Xiangping Li (Jinan University); Zilan Deng (Jinan University);*
- 00:00 Actively Tunable Hybrid Plasmonic Metasurfaces  
*Alemayehu Nana Koya (Eastern Institute of Technology); Qing Huo Liu (Eastern Institute of Technology);*
- 00:00 Tailoring Radiation Asymmetry in Vertically-symmetry-broken Bilayer Metagratings  
Invited  
*Ze-Peng Zhuang (Fudan University);*
- 00:00 Engineering Asymmetries and Anisotropies in Nonlinear Plasmonic Metasurfaces  
Invited  
*Sergejs Boroviks (Swiss Federal Institute of Technology Lausanne (EPFL)); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 00:00 Twisted Light from Topological Chiral Exceptional Points in a Nanolaser Array  
Invited  
*Kaiwen Ji (Université Bordeaux); Melissa Hedir (Laboratoire des Technologies de la Microelectronique, CNRS); Ge Li (College of Staten Island); Ramy A. El-Ganainy (Michigan Technological University); Alejandro M. Yacomotti (Université Bordeaux);*
- 00:00 Multi-dimensional Light Field Manipulation with Optical Metasurfaces: From Free Space to On-chip Integration  
Invited  
*Cheng Zhang (Huazhong University of Science and Technology);*
- 00:00 Anti-parity-time in Spoof Plasmonics  
Invited  
*Junhui Guo (Zhejiang University); Yuanzhen Li (Zhejiang University); Hongsheng Chen (Zhejiang University); Fei Gao (Zhejiang University);*
- 00:00 Implementation and Application of On-chip Nonlinear Photodetectors  
Invited  
*Xiaoqing Chen (Northwestern Polytechnical University); Xuetao Gan (Northwestern Polytechnical University);*
- 00:00 Photonic Neuromorphic Computing Using Symmetry-protected Zero Modes in Coupled Nanolaser Arrays  
*Kaiwen Ji (Université Bordeaux); Giulio Tirabassi (Universitat Politècnica de Catalunya); Cristina Masoller (Universitat de Girona); Ge Li (College of Staten Island); Alejandro M. Yacomotti (Université Bordeaux);*
- 00:00 Noise Performance of a Non-Hermitian Exceptional-point-based LC Sensing System  
*Ke Yin (Sichuan University); Lu Tan (Sichuan University); Huacheng Zhu (Sichuan University); Yang Yang (Sichuan University);*
- 00:00 Ultrafast Label-free Single-cell Analysis via Transient Dynamics at an Exceptional Point  
*Jianhui Wu (Zhejiang University); Jikui Luo (Zhejiang University);*
- 00:00 Demonstration of Self-balance Mechanism with Bloch Oscillations in Momentum Bandgap Engineering  
*Danni Chen (ShanghaiTech University); Changying Li (ShanghaiTech University); Jinze He (ShanghaiTech University); Huaiqiang Wang (Nanjing Normal University); Yiming Pan (ShanghaiTech University);*
- 00:00 Parity-time-symmetric Bimorphic Topological Insulators  
*Shuming Zhang (Zhejiang University); Tuo Wan (Zhejiang University); Zhaoju Yang (Zhejiang University);*
- 00:00 Exceptional-point-induced Sensitivity-robustness Phase Transition in Quantum Interference  
*Xing Lin (The University of Hong Kong); Zhongfu Li (The University of Hong Kong); Shuang Zhang (The University of Hong Kong);*

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**Session 3P17b**

**Non-Hermitian Optics, Photonics, and  
Electrodynamics**

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**Thursday PM, July 30, 2026**

**Room 17 - CR 20**

Organized by Minye Yang, Xuetao Gan

Chaired by Minye Yang

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**Session 3P18**
**Advanced Photonic Technologies for Sensing & Imaging Applications 2**


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**Thursday PM, July 30, 2026**
**Room 18 - VIP R8**

 Organized by Simone Borri, Weixiong Zhao, Lei Dong,  
 Marco Marangoni

 Chaired by Marco Marangoni
 

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- 00:00 Miniaturized High-precision Multi-pass Cell for UAV-based Methane Sensing  
*Ruyue Cui (Shanxi University); Hongpeng Wu (Shanxi University); Wei Dong Chen (Université du Littoral Côte d'Opale); Lei Dong (Shanxi University);*
- 00:00 Highly Sensitive Spectroscopic Detection of SF<sub>6</sub> Decomposition Gases for Early Fault Warning in GIS Equipment  
*Bo Sun (Taiyuan University of Technology); Hongpeng Wu (Shanxi University); Angelo Sampaolo (University and Polytechnic of Bari); Pietro Patimisco (University and Polytechnic of Bari); Andrea Zifarelli (University and Polytechnic of Bari); Mingjiang Zhang (Taiyuan University of Technology); Lei Dong (Shanxi University); Vincenzo Spagnolo (University and Polytechnic of Bari);*
- 00:00 Magnetic Field Temporal and Spatial Mapping Using Magneto-optical Effect  
*Ana-Maria Tiuleanu (National Institute for Laser, Plasma and Radiation Physics (NILPRP)); Razvan Ungureanu (National Institute for Laser, Plasma and Radiation Physics (NILPRP)); Bogdan Butoi (National Institute for Laser, Plasma and Radiation Physics (NILPRP)); Dorin Molovata (National Institute for Laser, Plasma and Radiation Physics (NILPRP)); Aurelian Marcu (National Institute for Laser, Plasma and Radiation Physics (NILPRP));*
- 00:00 Compressing Optical Systems with Engineered Spaceplates  
*Ryan Hogan (Nanjing University);*
- 00:00 Mid-IR QCL-based LIDAR for Ranging and Sensing  
*Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Tecla Gabbrielli (National Institute of Optics of the National Research Council — CNR-INO); Francesco Cappelli (CNR-INO, Istituto Nazionale di Ottica); Lorenzo Mischi (PpqSense S.r.l.); Davide Mazzotti (CNR-INO, Istituto Nazionale di Ottica); Giovanni Bianchini (CNR-INO, National Institute of Optics); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica); Simone Borri (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 A Frequency-locked Fiber-optic Gyroscope Based on Cascaded Resonant Stimulated-Brillouin Scattering  
 Invited *Gianluca Gagliardi (CNR, Istituto Nazionale di Ottica (INO));*
- 00:00 A Detectorless Photoacoustic Platform Based on Self-mixing Interferometry  
*Tecla Gabbrielli (National Institute of Optics of the National Research Council — CNR-INO); Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Chenghong Zhang (CNR-INO, National Institute of Optics); Francesco Cappelli (CNR-INO, Istituto Nazionale di Ottica); Stefano Dello Russo (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Mario Siciliani De Cumis (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Maria Concetta Canino (INFN, Istituto Nazionale di Fisica Nucleare); Alberto Roncaglia (CNR-ISMN, The Institute for the Study of Nanostructured Materials of the National Research Council of Italy); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica); Simone Borri (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 Compact Trace Gas Sensing by Balanced-detection Invited Interferometric Cavity-assisted Photothermal Spectroscopy (ICAPS)  
*Johannes Paul Waclawek (Technische Universität Wien); Harald Moser (Technische Universität Wien); Bernhard Lendl (Technische Universität Wien);*
- 00:00 Comparison of an Analytical Fitting Model for Modulated Direct and Indirect Laser Based Spectroscopy Techniques  
*Harald Moser (Technische Universität Wien); Johannes Paul Waclawek (Technische Universität Wien); Bernhard Lendl (Technische Universität Wien);*
- 00:00 Adaptable Photoacoustic Sensing Solutions for Precision Trace-gas Detection  
*Jacopo Pelini (CNR-INO — Istituto Nazionale di Ottica); Stefano Dello Russo (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Zhen Wang (Harbin Institute of Technology); Iacopo Galli (CNR-INO, Istituto Nazionale di Ottica); Maria Concetta Canino (INFN, Istituto Nazionale di Fisica Nucleare); Alberto Roncaglia (CNR-ISMN, The Institute for the Study of Nanostructured Materials of the National Research Council of Italy); Pablo Cancio Pastor (CNR-INO — Istituto Nazionale di Ottica); Naota Akikusa (Hamamatsu Photonics K.K.); Wei Ren (The Chinese University of Hong Kong); Paolo De Natale (CNR-INO, Istituto Nazionale di Ottica); Mario Siciliani De Cumis (ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale); Simone Borri (CNR-INO, Istituto Nazionale di Ottica);*
- 00:00 Non-invasive Multispectral Optical Sensing for Real-time Detection of Psychological Stress in Skin  
*Victoria V. Barygina (University of Florence); Enrico Baria (University of Florence); Anna Maria Monciatti (Conservatory of Music L. Cherubini); Francesco Saverio Pavone (University of Florence);*

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**Session 3P19**  
**Topological Nanophotonics 2**

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**Thursday PM, July 30, 2026**

**Room 19 - CR 27**

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

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00:00 Measurement-induced Topology in Photonic Lattices

Invited

*Quancheng Liu (Shandong University); Feng Chen (Shandong University);*

00:00 Observation of Spin-locking Effect of Light from Brownian Nanoparticles

Invited

*Xiao Zhang (Shanghai Jiao Tong University); Mei Li (Shanghai Jiao Tong University); Erez Hasman (Technion-Israel Institute of Technology); Xianfeng Chen (Shanghai Jiao Tong University); Bo Wang (Shanghai Jiao Tong University);*

00:00 Fundamental Properties of Surface Polaritons on Low Symmetry Materials

Invited

*Xiang Ni (Central South University);*

00:00 Nanostructured Moiré Superlattices for Laser Beam Steering

*Jun Guan (The Chinese University of Hong Kong, Shenzhen);*

00:00 Hopf Exceptional Points and Hopf Exceptional Rings in Electric Circuits

Invited

*Hongwei Jia (Tongji University);*

00:00 Topological Type Defects in Photonic Crystal Slabs Fabricated on Si Structures

*Margarita V. Stepihova (Institute for Physics of Microstructures RAS); E. O. Smolina (Ederal Research Center A.V. Gaponov-Grekhov Institute of Applied Physics RAS); I. A. Chuprin (Lobachevsky State University of Nizhny Novgorod); Artem V. Peretokin (Institute for Physics of Microstructures of the Russian Academy of Sciences); M. V. Shaleev (Institute of Physics of Microstructures RAS); D. V. Shengurov (Institute for Physics of Microstructures of RAS); E. E. Rodyakina (Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences); A. V. Novikov (Institute of Physics of Microstructures RAS);*

00:00 Programmable Chiral Edge States and Photonic Convolutions in Synthetic Frequency Dimension

Invited

*Weiwei Liu (Huazhong University of Science and Technology); Xiaolong Su (Huazhong University of Science and Technology); Bing Wang (Huazhong University of Science and Technology); Peixiang Lu (Huazhong University of Science and Technology);*

00:00 Advanced Near-field Optical Microscopy for the Discovery of Moiré Superlattices and Beyond

Invited

*Peng Shi (Shenzhen University);*

00:00 Manipulation of Photonic Topological Edge and Corner States via Trivial Claddings

Invited

*Hai-Xiao Wang (Ningbo University);*

00:00 Cavity-controlled Nonlinear Landau Fan in Graphene

Invited

*Hongxia Xue (The University of Hong Kong); Hsun-Chi Chan (The University of Hong Kong); Z. Lin (The University of Hong Kong); D. Borici (Universite Paris Cite, CNRS); S. Zhou (The University of Hong Kong); Y. Wang (The University of Hong Kong); K. Watanabe (National Institute for Materials Science); T. Taniguchi (National Institute for Materials Science); Cristiano Ciuti (Universite Paris Cite, CNRS); W. Yao (The University of Hong Kong); Dong-Keun Ki (The University of Hong Kong); Shuang Zhang (The University of Hong Kong);*

00:00 Spatial Inversion Kramers Degeneracy

*Jialu Mu (Hunan University); Biao Yang (National University of Defence Technology); Qinghua Guo (Hunan University);*

00:00 Experimental Demonstration of Higher-order Topological Photonic Router

*Rui Shi (School of Physics Science and Engineering); Zhiwei Guo (Tongji University); Yafeng Chen (Tongji University);*

00:00 Topological Power Router Based on Interferometric Control

*Menglin L. N. Chen (The University of Hong Kong);*

00:00 Optical Skyrmions in Single Microcavities Formed by Photonic Spin-orbit Coupling

Invited

*Feng Li (Xi'an Jiaotong University);*

00:00 Source-engineered Optical Skyrmions: From Localized Skyrmion Sources to Programmable Lattices

*Shan Huang (Jiangxi Normal University); Jianqiao Zhao (Tsinghua University); Sergejs Boroviks (Swiss Federal Institute of Technology Lausanne (EPFL)); Zhengjun Zhang (Tsinghua University); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*

00:00 Chirality Symmetry Breaking in a Microring with a Dual-mirror System

Invited

*Keya Zhou (Harbin Institute of Technology);*

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**Session 3P20**

**Extreme Nanophotonics in Plasmonic Nanostructures and Low-dimensional Systems 2**

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**Thursday PM, July 30, 2026**

**Room 20 - CR 28**

Organized by Wen Chen, Huatian Hu

Chaired by Wen Chen

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00:00 Enhancing and Directionally Controlling the Photoluminescence of 2D Materials Using Plasmonic Nanocavities

Invited

*Fajun Xiao (Northwestern Polytechnical University);*

00:00 Light-matter Interaction in UCNP in Weak and Strong-coupling Regimes

Invited

*Xiaolan Zhong (Beihang University);*

- 00:00 Collective Optomechanical Effects in Metallic  
Invited Nanocavity-enhanced Raman Scattering  
*Yuan Zhang (Zhengzhou University); R. Esteban (Center for Material Physics); S. P. Zhang (Wuhan University); J. Baumberg (Wuhan University); J. Azipurua (Wuhan University);*
- 00:00 Efficient Second Harmonic Generation in a Hybrid Plasmonic Waveguide  
Invited  
*Junjun Shi (Henan University);*
- 00:00 Single-atom Resolution for Surface and Subsurface Defects through Tip-enhanced Raman Spectromicroscopy  
Invited  
*Yao Zhang (University of Science and Technology of China);*
- 00:00 Nanoparticle-on-Mirror Architectures for Local and Remote Spectroscopy  
Invited  
*Yang Li (Shenzhen University); Jinqiao Wu (Shenzhen University); Jiawei Sun (Shenzhen University); Shuai Chen (Shenzhen University); Zhiwei Hu (East China Normal University); Wen Chen (East China Normal University); Wei Dai (Wuhan University); Hongxing Xu (Wuhan University);*
- 00:00 Regulation of Upconversion Luminescence of Rare Earth Ions by Plasmonic nanocavity  
*Huan Chen (Shaanxi Normal University);*
- 00:00 Self-assembled Surface-accessible Plasmonic Nanostructures for Surface-enhanced Raman Spectroscopy  
Invited  
*Yikai Xu (East China University of Science and Technology);*
- 00:00 Boosting Nonlinear Light Emission with Hybrid Plasmonic Nanocavities  
*Tianzhu Zhang (Institute of Physics, Henan Academic of Science);*
- 00:00 Room-temperature Strong Exciton-plasmon Coupling in Two-dimensional Materials  
Invited  
*Xiaobo Han (Wuhan Institute of Technology); Kai Wang (Huazhong University of Science and Technology); Peixiang Lu (Huazhong University of Science and Technology);*
- 00:00 Anisotropic Propagation and Ultrafast Dynamics of Exciton-polaritons  
Invited  
*Jin-Hui Zhong (Southern University of Science and Technology);*
- 00:00 Extreme Nanophotonics: From Molecular Sensing Platforms to Molecular Optomechanical Upconversion  
Invited  
*Wen Chen (East China Normal University); Haoran Liu (East China Normal University); Tao He (East China Normal University); Huatian Hu (Istituto Italiano di Tecnologia, Center for Biomolecular Nanotechnologies); Christophe Galland (Ecole Polytechnique Fédérale de Lausanne (EPFL)); Hongxing Xu (Institute of Physics, Henan Academy of Sciences);*
- 00:00 Ultrafast Raman Detection of Small Molecules by Plasmonic Nanopore  
Invited  
*Francesco Tantussi (Istituto Italiano di Tecnologia); Kirill Kabarov (Istituto Italiano di Tecnologia); Ilaria Micol Baldi (Istituto Italiano di Tecnologia); Maria Blanco Formoso (Istituto Italiano di Tecnologia); Foroogh Khozayemeh Sarbishe (Istituto Italiano di Tecnologia); Giulia Bruno (Istituto Italiano di Tecnologia); Michele Dipalo (Istituto Italiano di Tecnologia); Francesco Gentile (Università Magna Grecia); Federica Villa (Politecnico di Milano); Francesco De Angelis (Istituto Italiano di Tecnologia);*
- 00:00 Nonlinear Linewidth Compression in Micro-rings for Enhanced Optical Biosensing  
*Rui Fang (Eindhoven University of Technology); Elisabetta Bodo (Eindhoven University of Technology); Andy Van Moll (Eindhoven University of Technology); Koen Valk (Eindhoven University of Technology); Yuning Jiao (Eindhoven University of Technology); Peter Zijlstra (Eindhoven University of Technology);*
- 00:00 Active Tuning of Near-field Heat Transfer in Graphene Sheets and Nanoribbons with Drift Currents  
Invited  
*Eduardo J. C. Dias (University of Southern Denmark); Joel D. Cox (University of Southern Denmark);*

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**Session 3P21a**
**Disorder in Photonics 2**


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**Thursday PM, July 30, 2026**
**Room 21 - CR 29**

Organized by Haoran Ren, Changxu Liu

 Chaired by Haoran Ren
 

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- 00:00 Harnessing Disorder for Spatiotemporal Coherence and Robust Optical Catastrophes  
Invited  
*Hongtao Wang (Singapore University of Technology and Design);*
- 00:00 Turing Pattern-enabled Physical Unclonable Functions for Authentication and Random Number Generation  
*Feiliang Chen (University of Electronic Science and Technology of China); Xiaokang Wang (University of Electronic Science and Technology of China); Haonian Fang (University of Electronic Science and Technology of China); Ruijie Hui (University of Electronic Science and Technology of China); Yang Liu (University of Electronic Science and Technology of China); Fan Yang (University of Electronic Science and Technology of China); Haiquan Zhao (University of Electronic Science and Technology of China); Hao Jiang (University of Electronic Science and Technology of China); Mo Li (University of Electronic Science and Technology of China); Jian Zhang (University of Electronic Science and Technology of China);*

- 00:00 Disordered Metasurfaces for Infrared Silicon Photodetectors  
Invited  
*Zhaogang Dong (Singapore University of Technology and Design);*
- 00:00 Spatiotemporally Structured Light Fields  
Invited  
*Qiwen Zhan (Westlake University);*
- 00:00 Second-harmonic Wavefront Shaping with Lithium Niobate Metasurfaces  
Invited  
*Fei Ding (Eastern Institute of Technology);*
- 00:00 Upconversion Photonics-based Sensing and Imaging  
Invited  
*Fan Wang (Beihang University);*
- 00:00 Turbulence-resilient Data Transmission Using Steady Optical Vortex Beam with Extended Focus  
Invited  
*Yiqian Yang (Tsinghua University); Liangcai Cao (Tsinghua University);*
- 00:00 Disordered Near-field Metasurfaces for Light Shaping  
Invited  
*Luca Schmid (University of Stuttgart); Julian Schwab (University of Stuttgart); Chi Li (Monash University); Kaijian Xing (Monash University); Stefan Alexander Maier (Monash University); Harald W. Giessen (University of Stuttgart); Haoran Ren (Monash University); Mario Hentschel (University of Stuttgart);*

- 00:00 On-chip PI-excitonic Materials: Manipulating Quantum States in a Chiral Emitters and Plasmonic Nano-cavities Strongly Coupled System  
Invited  
*Kun Liang (Beijing University of Posts and Telecommunications); Chengmao He (Beijing University of Posts and Telecommunications); Junqiang Li (Beijing University of Posts and Telecommunications); Dou Li (Beijing University of Posts and Telecommunications); Li Yu (Beijing University of Posts and Telecommunications);*
- 00:00 Tailoring Branched Flow of Light in Liquid Crystals  
Invited  
*Jinhui Chen (Xiamen University);*
- 00:00 Origins of Beam Self-cleaning Robustness in GRIN Multimode Fibers  
Invited  
*Ping Fang (Beijing University of Posts and Telecommunications); Yuhui Chao (Beijing University of Posts and Telecommunications); Zhenming Yu (Beijing University of Posts and Telecommunications);*
- 00:00 Chirped Nonautonomous Solitons on a Continuous-wave Background  
Invited  
*Qin Zhou (Wuhan Textile University);*

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**Session 3P22  
Poster Session 7**

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**Thursday PM, July 30, 2026  
14:00 PM - 18:00 PM  
Poster Area**

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**Session 3P21b  
Wave Propagation in Nonlinear and Disordered Media**

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**Thursday PM, July 30, 2026**

**Room 21 - CR 29**

Organized by Wenjun Liu, Ping Fang

Chaired by Ping Fang

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- 00:00 Guiding Waves through Chaos: Universal Bounds for Targeted Mode Transport  
Invited  
*Cheng-Zhen Wang (Lanzhou University);*
- 00:00 Soliton Attractors in the Mode-locked Fiber Laser  
Invited  
*Chao-Qing Dai (Zhejiang A&F University); Xue-Peng Wang (Zhejiang A&F University); Li-Jia Zhuang (Zhejiang A&F University);*
- 00:00 Dynamics of Multiple Solitons in Fiber Laser  
Invited  
*Yue Yue Wang (Zhejiang A&F University); Zhen-Tao Ju (Zhejiang A&F University); Xin Yan (Zhejiang A&F University); Zhi-Zeng Si (Zhejiang A&F University); Chao-Qing Dai (Zhejiang A&F University);*
- 00:00 Nonlinear Optical Properties of 2D Materials and the Application in Ultrafast Lasers  
Invited  
*Lu Li (Xi'an University of Posts and Telecommunications);*

- 00:00 ELF Magnetic-resonant Wireless Power Transfer through Thick Ferromagnetic Steel Barriers for Sealed Vessel Monitoring  
*Yiran Ma (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jin Zhou (Southwest University of Science and Technology); Liming Yu (Southwest University of Science and Technology); Yilin Huang (Southwest University of Science and Technology); Chenhao Fang (Southwest University of Science and Technology);*
- 00:00 Optimized Triple-Phase-Shift Control for Hybrid Three-level DC/DC Converters  
*Cheng Chen (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yong Li (Southwest University of Science and Technology); Lei Zhao (Southwest University of Science and Technology); Haoyu Zhang (Southwest University of Science and Technology); Qifeng Wu (Southwest University of Science and Technology); Yuying Zhu (Southwest University of Science and Technology);*

- 00:00 A Feasible-region-constrained Lightweight Integrated Receiver Design Method for Ducted-fan UAV Wireless Charging  
*Guozheng Zhang (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Chengcheng Wen (Southwest University of Science and Technology); Qi Liu (Southwest University of Science and Technology); Lei Zhao (Southwest University of Science and Technology);*
- 00:00 A Damping Strategy for Resonance Suppression in Filters of High-voltage Piezoelectric Drive Amplifiers  
*Mingcan Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Qiu He (Southwest University of Science and Technology); Cheng Chen (Southwest University of Science and Technology); Qifeng Wu (Southwest University of Science and Technology);*
- 00:00 Internal Short Circuit Detection in Lithium-ion Batteries Based on a Distributed BMS Architecture and Adaptive Resistance Estimation  
*Chengcheng Wen (Southwest University of Science and Technology); Guozheng Zhang (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);*
- 00:00 A PLL-stabilized Spoof Surface Plasmon Polariton Interconnect for Energy-efficient Sub-THz CMOS Links  
*Keshan Guo (Guangzhou University); Lin Peng (Guangzhou University); Yuming Su (Guangzhou University); Yibo Li (Guangzhou University); Yuqian Han (Guangzhou University); Mengding Guo (Guangzhou University); Yufan Xie (Guangzhou University);*
- 00:00 A Sub-THz Energy-efficient CMOS THz Inter-chip Interconnect Using SSPP Waveguides and a PLL-synchronized SSPP Oscillator  
*Rui Yu (Guangzhou University); Zicheng Liang (Guangzhou University); Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University); Rui Ma (Guangzhou University); Yifan Li (Guangzhou University);*
- 00:00 Generalized Unified  $S$ -parameter Calculation Method for Rectangular Waveguides Based on Frequency-domain Multimode Expansion  
*Shiyao Wang (Xi'an University of Technology); Xile Chen (Xi'an University of Technology); Wei Quan (Xi'an University of Technology);*
- 00:00 Influence of Plasma Parameters on Microwave Radiation Matching with Plasma in a Gasdynamic ECR Ion Source  
*Vadim A. Skalyga (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Egor D. Gospodchikov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS)); I. V. Izotov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. V. Polyakov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. S. Vybin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00  $3 \times 3$  Grooved-shaped Choke Ring Metasurface for L and S Band GNSS Applications  
*Ashish Singh (NMAMIT, Nitte (Deemed to be University)); Shekhara Kavitha (NMAMIT, Nitte (Deemed to be University)); Nagendra Prasad Yadav (Hubei Polytechnic University); Mohammad Aneesh (Veer Bahadur Singh Purvanchal University);*
- 00:00 Spectrum Occupancy Prediction and Dynamic Access Method Based on Hidden Markov Model  
*Mengqiang Li (Hainan University); Zhenjia Chen (Hainan University); Gan Luan (Hainan University);*
- 00:00 A Broadband Transmissive Metasurface for  $45^\circ$  Linear Polarization Rotation Based on Amplitude and Phase Balance  
*Bochen Wu (Tongji University); Haoyu Gao (Tongji University); Cheng Chen (Tongji University);*
- 00:00 Interference-induced Entanglement Engineering on a Metasurface  
*Rui Zhong (Nanjing University); Ya-Jun Gao (Nanjing University); Yi-Fei Liu (Nanjing University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University);*
- 00:00 High-performance UV Photodetector Based on  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>/GaN Heterojunction Prepared by a New Route of Reverse Substitution Growth  
*Yurui Han (Northeast Normal University); Bingsheng Li (Northeast Normal University);*
- 00:00 Low-profile Omnidirectional Vertical Polarization Antenna with Gain Enhancement in the Horizontal Plane  
*Longjian Zhou (Southwest University of Science and Technology); Haonan Huang (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology);*
- 00:00 Fast Gridless Clutter Suppression for Airborne Bistatic Radar via 2D-IVDST  
*Junyao Hu (National University of Defense Technology); Jiameng Pan (National University of Defense Technology); Qinglong Bao (National University of Defense Technology);*

- 00:00 Modeling of Electromagnetic Scattering of Doppler Characteristics for Sea Surface with Breaking Waves  
*Pengbo Du (Ocean University of China); Yunhua Wang (Ocean University of China); Jianbo Cui (Ocean University of China); Yanmin Zhang (Ocean University of China); Fanwei Su (Ocean University of China); Honglei Zheng (Ocean University of China);*
- 00:00 Efficient Design of Broadband RF Matching Networks Using Smith Chart-guided Reinforcement Learning  
*Pengfei Yu (East China Research Institute of Electronic Engineering); Lai-Fu Jin (East China Research Institute of Electronic Engineering);*
- 00:00 Design of a Transmission-reflection-integrated Bifunctional Metasurface by Hybridizing the Geometric Phase and the Propagation Phase  
*Zhaotang Liu (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 Carrier Phase Cycle Slip Detection for Shipborne GNSS under Polar Conditions  
*Benqiang Sun (Shanghai Maritime University); Wei Liu (Shanghai Maritime University); Yuan Hu (Shanghai Ocean University); Linjin Wu (Shanghai Maritime University);*
- 00:00 A Deep Learning Model for Reconstructing Subsurface Thermohaline Structure in the South China Sea from Multi-resolution Satellite Observations  
*Hao Wang (Ocean University of China); Qing Xu (Ocean University of China); Xiaobin Yin (Ocean University of China); Huarong Xie (Nanjing University of Information Science and Technology); Letian Lv (Ocean University of China); Yanping Qin (Ocean University of China); Peng Mao (Ocean University of China); Yue Zhang (Ocean University of China);*
- 00:00 A Transformer-based Framework for Multi-sensor Track Fusion in Low-data-rate Radar Systems  
*Haoze Wang (Beijing Institute of Technology); Changhao Liu (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology);*
- 00:00 Optimizing Metal-semiconductor Interface for MoTe<sub>2</sub>-based Photodetectors with Broadband Sensitivity and Rapid Dynamics  
*Zijian Wang (Jiangnan University); Jing Bai (Army Engineering University of PLA); Xingyu Zhou (Jiangnan University); Jialing Jian (Jiangnan University); Zhengjin Weng (Jiangnan University); Shaoqing Xiao (Jiangnan University); Haiyan Nan (Jiangnan University);*
- 00:00 A Massively Parallel 100-Channel On-chip Spectrometer via Single-bus Microring Arrays and Multi-FSR Computational Reconstruction  
*Haorui Liu (Zhejiang University, Zijingang Campus); Long Zhang (Zhejiang University); Daoxin Dai (Zhejiang University);*
- 00:00 A New Framework for Estimating High-resolution Root-zone Soil Moisture Using the Soil Moisture Analytical Relationship: A Comparison between the Generalized Additive Model and a Machine-learning Fusion Strategy  
*Abba Aliyu Kasim (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences); Qian-Yu Liao (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences); Pei Leng (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences);*
- 00:00 Nonlocal Optomechanics of Nanoparticles in the Hybrid Anapole State  
*Susanna Rozental (Moscow Institute of Physics and Technology); Denis Kislov (Moscow Institute of Physics and Technology); Ilia M. Fradkin (Skolkovo Institute of Science and Technology); Vjaceslavs Bobrovs (Riga Technical University); Aleksandr Sergeevich Shalin (Moscow Institute of Physics and Technology);*
- 00:00 Joint Transceiver Optimization for Underwater Wireless Optical Communications  
*Lu Wang (Tsinghua University); Jiaming Lin (Tsinghua University); Tongzheng Sun (Tsinghua University); Shuanghe Liu (Tsinghua University); Jian Song (Tsinghua University); Yuhan Dong (Tsinghua University);*
- 00:00 Contact Less Human Vital Signs Extraction Using mm-Wave Radar in Autonomous Vehicle  
*J. Valarmathi (VIT University);*
- 00:00 The Forward Modeling for Microwave Non-destructive Testing of Electrically Large Anisotropic Objects  
*Saihang Qie (Northwestern Polytechnical University); Changyou Li (Northwestern Polytechnical University);*
- 00:00 Equivalent Circuit Modeling with Three-dimensional Circuit Plasma Interaction Simulation  
*Jaeguk Lee (Pohang University of Science and Technology); Hongbin Kim (Pohang University of Science and Technology); Sungyong Yun (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 An Efficient 3D Inversion Algorithm for the Transient Electromagnetic Method with Induced Polarization Effects  
*Qi Zhao (Shandong University); Shangbin Liu (Shandong University); Huai Feng Sun (Shandong University);*
- 00:00 Broadband Achromatic Metalens for the Short-wave Infrared  
*Yan He (University of Glasgow); Adetunmise C. Dada (University of Glasgow);*
- 00:00 Research on Relativistic Backward-wave Oscillator Technology with Multi-mode Operation in Low Magnetic Fields  
*Kun Chen (Northwest Institute of Nuclear Technology); Renzhen Xiao (Northwest Institute of Nuclear Technology); Yanchan Shi (Northwest Institute of Nuclear Technology); Xiangguo Wu (Northwest Institute of Nuclear Technology);*

- 00:00 End-to-end Complex-valued Signal Recovery for Radar ISRJ Suppression via Cascaded Unitary Autoencoders  
*Shuai Shi (Shanghai Jiao Tong University); Feiming Wei (Shanghai Jiao Tong University);*
- 00:00 Light-driven Metasurface for Parallel Logic Operations via Time-space Modulation  
*Hongping Yuan (Air Force Engineering University); Jian-Gang Liang (Air Force Engineering University);*
- 00:00 Ultralow-loss Etchless Silicon Carbide Integrated Photonics  
*Xuying Wang (École Polytechnique Fédérale de Lausanne (EPFL));*
- 00:00 Design of an S-band Broadband High-power Wave Radiation System Based on Power Synthesis  
*Jianglong Zhou (Northwest Institute of Nuclear Technology); Tao Jiang (Northwest Institute of Nuclear Technology); Weida Bai (Northwest Institute of Nuclear Technology); Zhengfeng Xiong (Northwest Institute of Nuclear Technology (NINT)); Guodong Gao (Northwest Institute of Nuclear Technology); Feng Yan (Northwest Institute of Nuclear Technology); Wei Peng (Northwest Institute of Nuclear Technology);*
- 00:00 Hyperspectral Image Classification via Adaptive Physical Prior Generative Adversarial Networks  
*Haijun Jiang (National University of Defense Technology); Xianyue Wang (National University of Defense Technology); Lei Lin (National University of Defense Technology); Hao Sun (National University of Defense Technology);*
- 00:00 Snow Depth Ensemble Forecasting and Data Assimilation Based on Conditional Diffusion Transformer  
*Xiaoyu Liu (Nanjing University of Information Science and Technology); Yonghui Li (Institute of Atmospheric Physics, Chinese Academy of Sciences); Yunhao Fu (Nanjing University of Information Science and Technology); Lu Li (Sun Yat-sen University); Yujia Sun (Nanjing University of Information Technology); Wei Han (Center for Earth System Modelling and Prediction, CMA);*
- 00:00 Research on the Synergistic Mechanism of Myoelectric Sensing and Multi-channel Electrical Stimulation Based on Wearable Flexible Array  
*Changzheng Li (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Tianqi Zhao (Southwest University of Science and Technology); Qicao Chen (Southwest University of Science and Technology);*
- 00:00 A GPS-guided Adaptive Metasurface Based on a Perception-decision-response Mechanism  
*Yuxi Li (Air Force Engineering University);*
- 00:00 Self-powered Photodetection via Plasma-etched Graphene Channels with MoS<sub>2</sub> Contacts  
*Zijian Wang (Jiangnan University); Jing Bai (Army Engineering University of PLA); Xingyu Zhou (Jiangnan University); Jialing Jian (Jiangnan University); Zhengjin Weng (Jiangnan University); Shaoqing Xiao (Jiangnan University); Haiyan Nan (Jiangnan University);*
- 00:00 Low-cost Mechatronic Power Sequencing for 48-V Micro-EVs: Embedded Computing, Electronic Systems, Pre-charge Verification and Fault Isolation  
*Okose Divine Ofure (Nile University of Nigeria); Azunka N. Ukala (University of Hertfordshire); Opeyemi Osanaiye (Nile University of Nigeria); Felix Ngobigha (University of Suffolk); Eugene A. Ogbodo (University of Hertfordshire); Martin A. Thomas (University of Hertfordshire, College Lane);*
- 00:00 Dihedral Reflector Polarimetric Roll Scattering Characteristics Measurement Based on Fourier Series Analysis  
*Fang Liu (National Key Laboratory of Scattering and Radiation); Xingyun Zhang (National Key Laboratory of Scattering and Radiation); Yang Bai (National Key Laboratory of Scattering and Radiation); Guangzhao Yang (Tsinghua University);*
- 00:00 Combination of Finite Element Method with Modal Method for Optimal Numerical Simulations of Photonic Crystal Structures  
*Dmitry Dresvyankin (Skolkovo Institute of Science and Technology);*
- 00:00 Conducted Emission Testing and Analysis Based on Isolated SiP Chips  
*Pingyun Jiang (National University of Defense Technology); Jianfei Wu (National University of Defense Technology); Ledong Chen (National University of Defense Technology); Honghai Liu (National University of Defense Technology); F. C. Niu ();*
- 00:00 Circularly Polarized Coherent Thermal Emission with Temperature-driven Helicity Reversal and Wavelength Tunability  
*Kaili Sun (Shandong Normal University); Zhanghua Han (Shandong Normal University);*
- 00:00 Two-photon Photodynamic Therapy and Assessment of Cancer Prognosis  
*Bobo Gu (Shanghai Jiao Tong University);*
- 00:00 Bio-aware Electromagnetic Noise Harvesting for Communication Enhancement and Radiation Mitigation  
*Diva Bhattacharya (Netaji Subhas University of Technology); Bhaskar SenGupta (Heriot-Watt University);*
- 00:00 Analysis of Phase Drift in Outdoor RCS Measurements  
*Ming Lyu (Science and Technology on Electromagnetic Scattering Laboratory);*
- 00:00 OptoPCM-MetaData: A Generative AI-based Approach for Intelligent Optimization of Phase Change Materials  
*Chaohuan Wu (Soochow University); Lei Gao (Suzhou City University); Muhammad Qasim Mehmood (Information Technology University (ITU)); Dongliang Gao (Soochow University);*

- 00:00 Dynamic Optical Field Modulation and Biological Microparticle Trapping Using a Dual-band Wavelength-selective Metalens  
*Rui Jun Guo (Zhengzhou University); Yong Zeng (Zhengzhou University); Chengkai Zhang (Zhengzhou University); Kai Yu (Zhengzhou University);*
- 00:00 Comparative Investigation of Two Kinds of Typical Dual-wavelength Rb-Cs Vapor Lasers  
*Shunyan Wang (Southwest Institute of Technical Physics); Weiye Tie (Southwest Institute of Technical Physics); Meihong Rao (Southwest Institute of Technical Physics); Chenghuan Su (Southwest Institute of Technical Physics); You Wang (Southwest Institute of Technical Physics);*
- 00:00 Design of a Fragment-type 77 GHz MIMO Antenna Using an Improved Genetic Algorithm  
*Bingquan Yang (University of Science and Technology of China); Lai-Fu Jin (East China Research Institute of Electronic Engineering); Pengfei Yu (East China Research Institute of Electronic Engineering);*
- 00:00 Intercepting of Electrons with High Rotational Velocities in Inverse Gyrotron Magnetron-injection Guns  
*Vladimir Nikolaevich Manuilov (Institute of Applied Physics, RAS); Mikhail Dmitrievich Proyavin (Institute of Applied Physics, Russian Academy of Sciences); A. V. Aktanaev (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Aleksandr A. Bogdashov (Institute of Applied Physics, Russian Academy of Sciences);*
- 00:00 An Improvement of the SAR-based Rainfall Retrieval Model Using Tropical Cyclone Structural Parameters  
*Chunlan Liu (Ocean University of China); Yuan Gao (Ocean University of China); Yunhua Wang (Ocean University of China);*
- 00:00 FPGA-based Parallel Landweber Algorithm for Electromagnetic Tomography Image Reconstruction  
*Jiwei Huo (Beijing Jiaotong University); Ying Gao (Standards & Metrology Research Institute, China Academy of Railway Science Corporation Limited); Haihua Yang (China Railway Hohhot Group Corporation Limited); Wei Yuan (Infrastructure Inspection Research Institute, China Academy of Railway Science Corporation Limited);*
- 00:00 Investigation on the Utilization of 905 nm-LiDAR for Ocean Wave Monitoring  
*Fei Chen (Ocean University of China); Yunhua Wang (Ocean University of China); Yanmin Zhang (Ocean University of China);*
- 00:00 Physics-guided Microwave Inverse Scattering via Edge-enhanced Multi-frequency Fusion Network with PixelShuffle  
*Xingbao Zhai (Zhengzhou University); Fazhong Shen (Zhengzhou University);*
- 00:00 Research on Model Predictive Control Method for Disturbance Rejection of Electric Rudder under Nonlinear Disturbances  
*Huanfa Yi (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yang Li Liu (Southwest University of Science and Technology); Gaohua Xiong (Southwest University of Science and Technology); Yang Qiu (Southwest University of Science and Technology);*
- 00:00 Transformer Network-based Low Data Rate Radar Track Prediction  
*Youshen Tian (Beijing Institute of Technology); Changhao Liu (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology);*
- 00:00 Electromagnetic Compatibility Risk Mitigation in Modular Wheelchair Power-assist Kits Using a Supervisory Fail-safe Control Architecture  
*Azunka N. Ukala (University of Hertfordshire); Abdul-Samad Lawal (Nile University of Nigeria); Okose Divine Ofure (Nile University of Nigeria); Goodnews Eko Michael (Nile University of Nigeria); Opeyemi Osanaiye (Nile University of Nigeria); Taiwo A. Fasakin (Nile University of Nigeria); Eugene A. Ogbodo (University of Hertfordshire); Martin A. Thomas (University of Hertfordshire, College Lane);*
- 00:00 A Scalable Sub-picosecond Clock synchronization Architecture Enabled by Quantum Two-way Time Transfer  
*Bingke Shi (National Time Service Center, Chinese Academy of Sciences); Huibo Hong (National Time Service Center, Chinese Academy of Sciences); Xiao Xiang (National Time Service Center, Chinese Academy of Sciences); Runai Quan (National Time Service Center, Chinese Academy of Sciences); Yuting Liu (National Time Service Center, Chinese Academy of Sciences); Zhiguang Xia (National Time Service Center, Chinese Academy of Sciences); Tao Liu (National Time Service Center, Chinese Academy of Sciences); Shougang Zhang (National Time Service Center, Chinese Academy of Sciences); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences);*
- 00:00 A Method of Microwave Therapy, Music and LED-therapy for Alzheimer and Parkinson Disease  
*Liliia Rabenok (Aesthetic Surgeon); Margarita Tecpoyotl-Torres (Autonomous University of State Morelos (UAEM)); Nikolay Grimalsky (UAM);*
- 00:00 Exceptional Point Realization in Asymmetric Non-Hermitian All-dielectric Metasurface  
*Monica Pradhan (Indian Institute of Technology Kharagpur); Shubhanshi Sharma (Indian Institute of Technology Kharagpur); Shailendra Kumar Varshney (Indian Institute of Technology Kharagpur);*
- 00:00 Non-invasive Wearable Cerebral Blood Flow Monitoring Using Structure Similarity Diffuse Correlation Spectroscopy (SS-DCS)  
*Yingqi Jiang (King's College London); Tianrui Zhao (King's College London);*

- 00:00 Design of Circular Airy Beams Carrying OAM Using a Lens-integrated Small-aperture Antenna Array  
*Ze Zheng (Xidian University); H. X. Zuo (Xidian University); Q. Feng (Xidian University); X. Hao (Xidian University); Long Li (Xidian University);*
- 00:00 Integrated Design of Multidimensional Camouflage Based on Metasurface Electromagnetic Modulation  
*Huiting Sun (Air Force Engineering University); Jun Wang (Air Force Engineering University); Ruichao Zhu (Air Force Engineering University); Yuxiang Jia (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 Tucker and ActNet-kernel Neural Operator for Electric Field Integral Equations of 3-D PEC Targets  
*Haokun Lei (Fudan University); Yang Liao (Fudan University); Feng Wang (Fudan University);*
- 00:00 Design of a Broadband Hybrid EMI Filter  
*Qilong Yu (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yining Qing (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yonghao Lu (Southwest University of Science and Technology); Yong Li (Southwest University of Science and Technology);*
- 00:00 Analysis of Pulse Integration Gain in RCS Measurements  
*Ming Lyu (Science and Technology on Electromagnetic Scattering Laboratory);*
- 00:00 Tailoring Chiroptical Properties of Large-area Moiré Metamaterials with TiO<sub>2</sub> Nanoantenna Stickers  
*Jiayang He (Kyoto University); Shunsuke Murai (Kyoto University); Tienyang Lo (Kyoto University); Katsuhisa Tanaka (Kyoto University);*
- 00:00 Machine-learning Assisted Infrared Optical Sensing for Rapid Viral Detection and Ultra-low Copy Number Quantification  
*Pooja Lahiri (Indian Institute of Technology Kharagpur); Subhanita Roy (Indian Institute of Technology Kharagpur); Basudev Lahiri (IIT Kharagpur);*
- 00:00 Filter-free Photonic Frequency Octupling Based on Cascaded MZM Parameter Coordination  
*Chengyao Liu (Nankai University); Yalong Xu (Nankai University); Jing He (Nankai University); Kunpeng Zhai (Nankai University); Huashun Wen (Nankai University); Ninghua Zhu (Nankai University);*
- 00:00 Intelligent Classification and Multi-source Decoupling of Radiation Sources Using Near-field Electromagnetic Data  
*Zongjin Li (Beihang University); Xiaofei Zhao (Beihang University); Lingnan Song (Beihang University); Cheng Wang (Beihang University);*
- 00:00 All-optical Signal Processing-based Flexible Optical Interconnection Using Pump Assisted Nonlinear Optical Loop Mirror  
*Zhe Sun (China Electronic Product Reliability and Environmental Testing Research Institute); Qiankun Li (Nankai University); Huashun Wen (Nankai University); Zijie Feng (University of Electronic and Science Technology of China); Yameng Li (Hangzhou Research Institute, China Coal Technology and Engineering Group); Chengyao Liu (Nankai University); Qi Xu (Beijing Institute of Technology); Xiongwei Yang (Xi'an University of Posts and Telecommunications); Ninghua Zhu (Nankai University);*
- 00:00 Harmonic Behavior of the Coupling Coefficient of an Oscillatory Neural Network Based on the Magnetoelectric Composite Structure  
*Aleksandr O. Nikitin (Yaroslav-the-Wise Novgorod State University); Roman V. Petrov (Novgorod State University); Vasilii A. Misilin (Yaroslav-the-Wise Novgorod State University);*
- 00:00 CSI Technology Introduction and Its Application  
*Xiuqi Lai (Shanghai University); Xia Zhou (Nokia Shanghai Bell Co., Ltd.); Jingjing Shi (University of Manchester);*
- 00:00 Simulation Study on the Light Field Modulation Characteristics of Dual Optical Degrees of Freedom in Vector Vortex Beams  
*Zhelei Chen (China Jiliang University); C. H. Li (China Jiliang University); Wei Bin Qiu (China Jiliang University); Han Gao (China Jiliang University);*
- 00:00 RCS Sensitivity Analysis Based on Higher-order Basis Functions and Automatic Differentiation  
*Zongwei Zhan (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Hongbin Zhang (Southwest University of Science and Technology); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd); Hongqiu Xie (Mianyang Product Quality Supervision and Inspection Institute); Longjian Zhou (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Hao-ran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 The Seismic Resistance Grade of Buildings Identification Method Based on Low-altitude Embedded Visual Image Processing and Distributed Communication Networking  
*Yupei Fan (Hainan Earthquake Agency); Zhenjia Chen (Hainan University); Xu Geng (Huanghuai University); Jun Chen (Hainan University); Zhonghao Huang (Hainan University);*

- 00:00 An Intelligent RCS Prediction Method Based on Target Geometric Parameterization Modeling  
*Weiyu Xia (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haonan He (Southwest University of Science and Technology); Hao-ran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Bo Pu (DeTooLIC Technology Co., Ltd.); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Localization Method for Mixed Near-field and Far-field Electromagnetic Interference Sources  
*Bin Xie (Southwest University of Science and Technology); Peng Liu (Southwest University of Science and Technology); Feng Guo (Southwest University of Science and Technology); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd); Qiang-ming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Tao Bai (Southwest University of Science and Technology); Yuan Zhang (Robot Technology Used for Special Environment Key Laboratory of Sichuan Province); Yujie Song (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Knowledge Graph-based Electromagnetic Compatibility Analysis for Integrated Electronic System  
*Jingci Zhang (Jilin University); Hong Jiang (Jilin University); Sen Wang (Jilin University);*
- 00:00 Nonreciprocal Metasurfaces for Asymmetric Wavefront Manipulation  
*Hao Pan (City University of Hong Kong); Zheng Yang (City University of Hong Kong); Shubo Wang (City University of Hong Kong);*
- 00:00 Design of a Flexible X-band Wideband Phase-modulated Metasurface Based on Diamond-shaped Unit Structure  
*Tianyue Xie (National University of Defense Technology); Junjie Wang (National University of Defense Technology); Jiong Wu (National University of Defense Technology); Dejun Feng (National University of Defense Technology);*
- 00:00 Lithography-free, High-purity Dual-mode Structural Colors via Fano-resonant Cavities with Active  $\text{Ge}_2\text{Sb}_2\text{Te}_5$  Modulation  
*Hwajin An (Yonsei University); Dongkyun Kang (Yonsei University); Jungwoo Pyo (Yonsei University); Jaehyeong Kim (Yonsei University); Myeongkyu Lee (Yonsei University);*
- 00:00 Design of a 330–500 GHz Triple-subharmonic Mixer Using Schottky Diodes  
*Zewei Wang (UESTC); Yi Zhou (UESTC); Tianchi Zhou (UESTC); Jun Zhou (UESTC); Ziqiang Yang (University of Electronic Science and Technology of China);*
- 00:00 Embedded Fluorescent Molecules in a Hexagonal Boron Nitride Stack  
*Tianyu Fang (University of Bonn); Ricardo Gioia Alvarez (University of Bonn); Babak Behjati (University of Bonn); Moritz Scharfstadt (University of Bonn); Noah Henseler (University of Bonn); Andrea Bergschneider (University of Bonn); Stefan Linden (University of Bonn); Christian Schafer (Technical University of Vienna); Daqing Wang (University of Bonn);*
- 00:00 Scenario Recognition for Real-time Sub-nanometer Drift Correction in Super-resolution Microscopy  
*Kui Wang (Zhejiang Normal University); Anping Xiao (Zhejiang Normal University); Chuankang Li (Zhejiang Normal University);*
- 00:00 Research on Linear Range Expansion for Optical Field-strength Probes Based on Support Vector Machine  
*Bo Peng (Beijing Institute of Radio Metrology and Measurement); Ting Liu (Beijing Institute of Radio Metrology and Measurement); Shuo Zhang (Beijing Institute of Radio Metrology and Measurement); Yongjie Cheng (Beijing Institute of Radio Metrology and Measurement); Nan Wang (Beijing Institute of Radio Metrology and Measurement); Hai-Yang Wang (University of Electronic Science and Technology of China);*
- 00:00 Advances in SBS-gain-spectrum Widening in Silica-based Optical Fibers through Significant  $\text{B}_2\text{O}_3$  Incorporation  
*Sergey V. Tsvetkov (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center); Denis S. Lipatov (Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences); Tatiana S. Zaushitsyna (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center); Vitaliya A. Agakhanova (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center); Mikhail V. Yashkov (Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences); Mikhail M. Bubnov (Prokhorov General Physics Institute of the Russian Academy of Sciences); Mikhail E. Likhachev (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center);*

- 00:00 Room Temperature Broadband Photodetection with Enhanced Detectivity Based on 2D BP/PtSe<sub>2</sub> Heterostructure  
*Beitong Cheng (Southwest Institute of Technical Physics); Ruomei Jiang (Southwest Institute of Technical Physics); Danfeng Wang (Southwest Institute of Technical Physics); Tong Li (Southwest Institute of Technical Physics); Shuai Huang (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Zichang Zhang (Southwest Institute of Technical Physics); Jing Qiu (Southwest Institute of Technical Physics); Wei Zhang (Southwest Institute of Technical Physics); Qian Dai (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*
- 00:00 Integrating a GNUradio-based Cognitive Radio Module into the OpenRAN Network  
*Sergejs Šukšins (Riga Technical University); Roberts Pildavs (Riga Technical University); Aleksandrs Rībalko (Riga Technical University); Jelena Kulikova (Riga Technical University); Arnis Ancans (Riga Technical University); Māris Aleksandrov (Riga Technical University); Dmitrijs Rjazanovs (Riga Technical University); Elans Grabs (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);*
- 00:00 Research on Ku/Ka Dual-band Relativistic Transit-time Oscillator Based on Single Electron Beam Operation  
*Yanjin Cheng (National University of Defense Technology); Junpu Ling (National University of Defense Technology); Hao Song (National University of Defense Technology); Yufang He (National University of Defense Technology); Lei Wang (National University of Defense Technology); Zu Long Chen (National University of Defense Technology); Bin Ding (National University of Defense Technology);*
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- Session 4A1**  
**Radar Imaging, GPR, Inverse Scattering**
- 
- Friday AM, July 31, 2026**  
**Room 1 - CR 1**
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- 00:00 NMO-DSTT Tomographic Algorithm Advancements for Geotechnical Site Characterization  
*Erick Baziw (Baziw Consulting Engineers Ltd.);*
- 00:00 3D Object Detection Algorithm Based on GPR Echo Data  
*Jingpan Jia (Northwestern Polytechnical University); Chenxi Wang (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);*
- 00:00 On the Use of Closed-loop Network for Airport Pavement Inspection with Multi-static GPR Survey  
*Lilong Zou (Kingston University); Xianghao Liu (Jilin University); Ying Li (University of London); Kevin Munisami (Kingston University); Amir M. Alani (Kingston University); Motoyuki Sato (Tohoku University);*
- 00:00 Cascaded Generative Networks for High-frequency Ground Penetrating Radar Data Reconstruction  
*Fan Yang (Nanchang University); Shufan Hu (Nanchang University);*
- 00:00 Multi-granularity Multimodal Understanding of Remote Sensing Images via Attention-guided Resolution Reallocation  
*Xianzhi Ma (Nanjing University); Jianhui Li (Nanjing University);*
- 00:00 Beyond Data Expert-level Interpretation of the Sustainable Development Goals by AI Agents  
*Xiaohan Li (Nanjing University); Jianhui Li (Nanjing University);*
- 00:00 Robust Sparse Staring Imaging for Stochastic Radiation Radar  
*Ping Zhang (University of Electronic Science and Technology of China); Deqing Mao (University of Electronic Science and Technology of China); Yin Zhang (University of Electronic Science and Technology of China); Yulin Huang (University of Electronic Science and Technology of China); Jianyu Yang (University of Electronic Science and Technology of China);*
- 00:00 A Parameter-free Angular Superresolution Imaging Method Based on Unfolded Network under Antenna Pattern Error  
*Mingjie Yang (University of Electronic Science and Technology of China); Deqing Mao (University of Electronic Science and Technology of China); Yin Zhang (University of Electronic Science and Technology of China); Yulin Huang (University of Electronic Science and Technology of China); Jianyu Yang (University of Electronic Science and Technology of China);*
- 00:00 Multi-beamforming Design of MIMO Radar under Hybrid Analog-digital Architecture  
*Xian Zhao (University of Electronic Science and Technology of China); Deqing Mao (University of Electronic Science and Technology of China); Changhai Lin (University of Electronic Science and Technology of China); Yulin Huang (University of Electronic Science and Technology of China); Yin Zhang (University of Electronic Science and Technology of China); Jianyu Yang (University of Electronic Science and Technology of China);*
- 00:00 Size Effects on the Electromagnetic Wave Scattering Property of Finite Periodic Structures  
*Saihang Qie (Northwestern Polytechnical University); Yongqiang Wang (Northwestern Polytechnical University); Shuaiwen Liang (Northwestern Polytechnical University); Changyou Li (Northwestern Polytechnical University);*

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**Session 4A2**  
**Computational Imaging**

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**Friday AM, July 31, 2026**

**Room 2 - CR 2**

Organized by Wen Chen, Rui Chen

Chaired by Wen Chen

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- 00:00 Computational Phase Imaging for Label-free 3D Microscopy: Noninterferometric Phase Retrieval and Intensity Diffraction Tomography  
Invited  
*Chao Zuo (Nanjing University of Science and Technology);*
- 00:00 Exploiting Spatiotemporal Priors for Motion-resolved Computational Microscopy  
Invited  
*Yunhui Gao (Tsinghua University); Liangcai Cao (Tsinghua University);*
- 00:00 Optical Encryption with Single-pixel Imaging  
Invited  
*Hongchao Liu (University of Macau);*
- 00:00 Computational Imaging with Randomness  
Invited  
*Ryoichi Horisaki (The University of Tokyo);*
- 00:00 Single-pixel Non-imaging Rapid Autofocus Technology  
Invited  
*Dongfeng Shi (University of Science and Technology of China);*
- 00:00 Computational Lensless Imaging Methods with High-fidelity  
Invited  
*Zhengjun Liu (Harbin Institute of Technology); Yutong Li (Harbin Institute of Technology);*
- 00:00 Imaging in Time-varying Scattering Media  
Invited  
*Wen Chen (The Hong Kong Polytechnic University);*
- 00:00 Rigorous Forward Modeling and Super-resolution Inverse Scattering in Optical Coherence Tomography  
*Chengran Wang (National University of Singapore); Chen-Hsin Sun (National University of Singapore); Xudong Chen (National University of Singapore);*
- 00:00 Accelerated Bayesian Deconvolution: Optimizing the Back-projector for High-speed Image Restoration  
*Farhad Niknam (UiT The Arctic University of Norway); Krishna Agarwal (UiT The Arctic University of Norway);*
- 00:00 Study on Vehicle Tracking on Two-lane Road by Using Fractal Image Analysis with Updating Reference Image  
*Yifan Wu (Nihon University); Jinbo Xuan (Nihon University); Syota Yazawa (Nihon University); Akira Uchida (Nihon University); Takashi Kuroiwa (Nihon University);*

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**Session 4A3a**  
**Remote Sensing and Polarimetry, SAR**

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**Friday AM, July 31, 2026**

**Room 3 - CR 3**

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- 00:00 Footprint-constrained Building-wise Phase Unwrapping for Urban 3D Reconstruction Using Multi-temporal InSAR  
*Lei Zhang (Tongji University);*
- 00:00 Large-Kernel Convolution with Self-supervised Pretraining for Robust Maritime Target Classification in SAR Imagery  
*Wenyi Lu (China University of Geosciences (Wuhan)); Shuang Yang (China University of Geosciences (Wuhan)); Xiang Zhang (China University of Geosciences);*
- 00:00 Dynamic Thresholding and Curriculum Class-confusion Learning for Unsupervised PolSAR Terrain Classification  
*Xuanqi Zhang (Xidian University); Jiashu Ma (Xidian University); Lirong Han (Xidian University); Tao Xie (Shaanxi Satellite Application Technology Center for Natural Resources); Shuang Wang (Xidian University); Yuwei Guo (Xidian University);*
- 00:00 Fine-grained Landslide Identification Based on MCB-net from Multi-modal Remote Sensing  
*Yizhan Li (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);*
- 00:00 Enhancing PS-InSAR Point Density and Precision through Deep Learning-based Semantic Prior Constraints in Complex Urban Environments  
*Yanyi Yuan (Fudan University); Junjie Ma (Fudan University); Fengming Hu (Fudan University);*
- 00:00 SAR Statistical Dynamics Theory and Its Patterns  
*Xiangguang Leng (National University of Defense Technology); Kefeng Ji (National University of Defense Technology); Gangyao Kuang (National University of Defense Technology);*
- 00:00 A Multi-feature-based Model for Underwater Topography Inversion with SAR Imagery  
*Yide Cui (Aerospace Information Research Institute, Chinese Academy of Sciences); Sheng Wang (Aerospace Information Research Institute, Chinese Academy of Sciences); Yang Yu (Aerospace Information Research Institute, Chinese Academy of Sciences); Guihong Liu (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences); Wentao Ma (Aerospace Information Research Institute, Chinese Academy of Sciences); Xiaofeng Yang (Nanjing University);*
- 00:00 A Gradient-guided Energy Reweighting for SAR Image Data Augmentation  
*Wenkai Pang (Nanjing University of Science and Technology); Jihong Gu (Nanjing University of Science and Technology); Zhou Cong (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*

- 00:00 Airborne Wide-area Observation Circular Stripmap Synthetic Aperture Radar (CSSAR) Experiment and Raw Data Processing  
*Leping Chen (National University of Defense Technology); Jingyu Xue (National University of Defense Technology); Dao Xiang An (National University of Defense Technology);*
- 00:00 Study on the Layout of Mulberry Industry in China Based on Remote Sensing  
*Zihao Wu (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences); Zijian Cao (China Agricultural University); Xiao-Jing Han (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences);*
- 00:00 Bistatic Radar Data Fusion Based on Compressed Sensing  
*Shengkai Sun (Nanjing University of Science and Technology); Zi He (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Compound Interference Suppression via ILRSD-ADMM in FDA-MIMO Radar  
*Qikai Wang (Xidian University); Qihang Xu (Xidian University); Lan Lan (Xidian University);*
- 00:00 Mainlobe Deceptive Jammer Suppression via Low-rank Sparse Decomposition with EPC-MIMO Radar  
*Xiang Zhang (Xidian University); Lan Lan (Xidian University); Kunkun Li (Xidian University); Guisheng Liao (Xidian University);*
- 00:00 HRWS SAR Imaging Using Beam Scanning with Vertical Coherent FDA Radar  
*Hai Huang (Xidian University); Qihang Xu (Xidian University); Lan Lan (Xidian University);*
- 00:00 Fine-grained Identification of Winter Wheat Planting Areas in Henan Using Sentinel-1/2 Images  
*Hui Liang (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University); Hongyu Liu (Henan Polytechnic University);*
- 00:00 Space-variant TomoSAR Baseline Error Correction Using Incident Angle Information  
*Mingyi Zhang (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology); J. Z. Liang (Beijing Institute of Technology); C. H. Liu (Beijing Institute of Technology);*
- 00:00 Adaptive Block Division Method in Spaceborne SAR Terrain Matching Curved Onboard Real-time Imaging  
*Dong Qiao Zhao (Beijing Institute of Technology); Xuan Wang (Beijing Institute of Technology); Chenglin Xie (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology);*
- 00:00 Beam Steering Optimization of Spaceborne SAR Terrain Matching Curved Interferometry  
*Zhihao Yuan (Beijing Institute of Technology); Ke Chen (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology);*
- 00:00 A Robust Anti-jamming Back-projection Method Using Vortex Waves through MISO Radar  
*Yu-Peng Yuan (Nanjing University of Science and Technology); Jun Hu (Nanjing University of Science and Technology); Qiao-Yu Chen (Nanjing University of Science and Technology); Shuo Wang (Nanjing University of Science and Technology); Yue-Fei Hu (Nanjing University of Science and Technology); Huang-Yan Li (Nanjing University of Science and Technology); Xiang Wang (Nanjing University of Science and Technology);*

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#### Session 4A4a

#### Modeling, Simulation, and Assessment of Electromagnetic Health in Complex Systems

Friday AM, July 31, 2026

Room 4 - CR 8

Organized by Tao Jiang

Chaired by Tao Jiang

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#### Session 4A3b

#### Advances of Synthetic Aperture Radar Imaging Techniques: Acquisition and Processing

Friday AM, July 31, 2026

Room 3 - CR 3

Organized by Yan Wang

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- 00:00 Block-size Optimization of Spaceborne SAR Terrain Matching Curved Imaging Using Frequency Domain Algorithm  
*Chenglin Xie (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology); Xuan Wang (Beijing Institute of Technology); Dong Qiao Zhao (Beijing Institute of Technology);*
- 00:00 Transformer-based Estimation of Pareto Shape Parameters and Empirical Model Correction for Sea Clutter under Moderate Sea States  
*Jialong Han (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*
- 00:00 Optimal Placement of Anti-jamming Test Points for Array Antennas Based on an Improved Artificial Lemming Algorithm  
*Haobo Chai (Harbin Engineering University); Haoxuan Jiang (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*
- 00:00 Risk Assessment of Sea-State-Driven Intermittent EMI in Off-boresight Regions Using an Improved OU Surrogate  
*Shuaikang Wang (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*

- 00:00 A Fast Spatial Domain Anti-intentional Interference Algorithm for Array Communication Based on One-dimensional MUSIC&LCMV-CMT  
*Steve Sun (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*
- 00:00 Simulation Study on the Propagation of Electromagnetic Radiation from Cables in Ship Compartments  
*Xintong Song (Harbin Engineering University); Tao Jiang (Harbin Engineering University); Shuaikang Wang (Harbin Engineering University);*
- 00:00 Electromagnetic Health Status Assessment for the Full Life Cycle of Ships  
*Haoxuan Jiang (Harbin Engineering University); Tao Jiang (Harbin Engineering University); Shuaikang Wang (Harbin Engineering University); Jiangnan Xing (ITMO University);*
- 00:00 Probabilistic Modeling of Electromagnetic Collision in Distributed Unmanned Systems Based on Motion Dynamics and Radiation Coupling  
*Jialin Shi (Naval Academy of China); Shuaikang Wang (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*

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#### Session 4A4b

#### Electromagnetic Research for Computational Innovations by Different Industrial Developments

Friday AM, July 31, 2026

Room 4 - CR 8

Organized by Yuxian Zhang, Naixing Feng

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- 00:00 Numerical Design and Analysis of a High-Q Helical Resonator for Olive Oil Purity Detection via FMCW Radar Approach  
*Hava Çeliktaş Oğuzcan (Akdeniz University); Mohamed S. Afifi (Akdeniz University); Selçuk Helhel (Akdeniz University);*
- 00:00 A Subgridding Algorithm for the Hexagonal-mesh-based FDTD  
*Yichao Jiang (Anhui University); Ke Xu (Anhui University); Ming Fang (Anhui University);*
- 00:00 An Explicit FDTD Method for Heavy-photon Wavepacket Propagation in the One-dimensional Time-dependent Schrödinger Equation Framework  
*Junji Dai (Anhui University); Zeya Wang (Anhui University); Yuxian Zhang (Anhui University);*
- 00:00 A Defective Dual-arc Dual-band Microstrip Antenna  
*Rui Li (Anhui University); Rui Cao (Anhui University); Bingqing Sun (Anhui University); Zhaolong Huang (Anhui University); Yuxian Zhang (Anhui University);*
- 00:00 A Compact UWB Antenna with Irregular Branches and Multi-defect Y-shaped DGS  
*Rui Cao (Anhui University); Rui Li (Anhui University); Bingqing Sun (Anhui University); Zhaolong Huang (Anhui University); Yuxian Zhang (Anhui University);*

- 00:00 Scattering Center Parametric Modeling of Rough Surface  
*Chang Huang (Anhui University); Anqi Wang (Anhui University); L. Yang (Anhui University); Xingang Ren (Anhui University); Z. Huang (Anhui University);*

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#### Session 4A5

#### Antenna and Array: Theory and Applications 2

Friday AM, July 31, 2026

Room 5 - CR 9

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- 00:00 GSM-based Analysis of Complementary Polarization Rotation in Dual-CP Arrays  
*Xiao Jie Lu (Tongji University); Bo Wang (Tongji University); Xiao Yu Li (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 The Beamwidth Expansion of a Novel Stacked-layer Patch Antenna and Its Application in Wide-angle Scanning Circularly Polarized Phased Array Design  
*Shiyuan Zhang (University of Electronic Science and Technology of China); Neng-Wu Liu (Xidian University); Sheng Sun (University of Electronic Science and Technology of China);*
- 00:00 Scan Blindness Suppression Using Surface-wave Propagation Constant Extraction Based on the Short-Open-Calibration (SOC) Technique for Defected Ground Structures  
*Guanglei Yang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Zhongjun Yu (Aerospace Information Research Institute, Chinese Academy of Sciences); Jie Peng (Aerospace Information of Research Institute, Chinese Academy of Sciences); Yunlong Tang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Juncheng Min (Aerospace Information of Research Institute, Chinese Academy of Sciences); Peng Yue (Aerospace Information of Research Institute, Chinese Academy of Sciences);*
- 00:00 A Dual-band Ultra-thin Flexible Antenna for WLAN Applications  
*Wajeeha Fatima (Tongji University); Jehangir Khan (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 W-band Wideband Antenna-in-package Integrated with Coplanar Waveguide Power Divider Based on Through-glass via Technology  
*Ji-Wei Lian (Nanjing University of Science and Technology); Zhi Zhao (Nanjing University of Science and Technology); Wobin Hong (Pohang University of Science and Technology (POSTECH)); Dazhi Ding (Nanjing University of Science and Technology);*
- 00:00 Decoupling-free ECC Reduction for Compact MIMO Antennas Based on Perfect Matching and Phase Orthogonality  
*Libin Sun (Shanghai Jiaotong University);*

- 00:00 Resonance-aware Neural Surrogates for Pixelated Multi-band Antennas  
*Ali Al-Zawqari (Vrije Universiteit Brussel); A. Safa (Hamad Bin Khalifa University); D. Peumans (Vrije Universiteit Brussel); G. Vandersteen (Vrije Universiteit Brussel);*
- 00:00 Optimization Design of a Longitudinal Corner-reflector Array for Ship HRRP Based on Dominant Scattering-center Matching  
*Sheng Tang (Harbin Engineering University); Tao Jiang (Harbin Engineering University);*
- 00:00 Low Cost Array Antenna for Mobile Terminals  
*Yan Wang (Fudan University);*
- 00:00 Broadband Electrically Small Vivaldi Antenna Realized Using a FET-based Active Matching Circuit  
*Xice Zhang (Beijing Institute of Technology); Changjiang Deng (Beijing Institute of Technology);*
- 00:00 A Low-cost Reconfigurable One-bit Phased Array with Wide-angle Scanning  
*Xiang Gao (Science and Technology on Electronic Information Control Laboratory); Haiqiang Yu (Science and Technology on Electronic Information Control Laboratory); Yutao Wang (Science and Technology on Electronic Information Control Laboratory);*
- 00:00 Pickup Unit Grouping Effects in Multi-phase Variable Reluctance Energy Harvesters  
*Ye Xu (Mid Sweden University); Mengfei Wu (Mid Sweden University); Sebastian Bader (Mid Sweden University); Bengt Oelmann (Mid Sweden University);*
- 00:00 Synergistic Framework for 6G: Integrating Partial LIS and Learning-based Interference Cancellation  
*Mário Marques da Silva (Universidade Autónoma de Lisboa); Rui Dinis (Universidade Nova de Lisboa);*
- 00:00 Design of Selective Wideband Bandpass Filter Based on Coupled Lines and Open Stubs  
*Jamel Ben Romdhane Hajri (University of Electronic of Science and Technology of China (UESTC));*
- 00:00 Compact Substrate Integrated Waveguide Multiband Filter and Filtering Couplers Based on Mixed Cavities with Flexible Topology  
*Zhigang Zhang (Chengdu University of Information Technology); Jiahao Li (Chengdu University of Information Technology); Ke Yu (Chengdu University of Information Technology); Yuchen Xiao (Chengdu University of Information Technology); Weiwei Lan (Chengdu University of Information Technology);*
- 00:00 Free-space Laser-induced Ultrafast GeTe Phase-change RF Switches  
*Sixian Qian (National University of Defense Technology); Xinyu Ma (National University of Defense Technology); Yajing Li (National University of Defense Technology); Qiang Chen (National University of Defense Technology); Yunqi Fu (National University of Defense Technology);*

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**Session 4A6**
**Microwave Circuits, Systems and Components**
**Friday AM, July 31, 2026**
**Room 6 - CR 10**


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- 00:00 Design and Implementation of a High-density IoT-SDR Spectrum Monitoring Station: Automating ITU-R SM.1880-2 Based Occupancy Measurements  
*Zulhaidir Hamid (Universitas Hasanuddin (UNHAS)); Elyas Palantei (Universitas Hasanuddin (UNHAS)); Intan Sari Areni (Universitas Hasanuddin (UNHAS));*
- 00:00 Deep Learning-enabled Geolocation of FM Broadcast Stations for Optimizing Green IoT Energy Harvesting Networks  
*Elyas Palantei (Universitas Hasanuddin (UNHAS)); Zulhaidir Hamid (Universitas Hasanuddin (UNHAS)); Intan Sari Areni (Universitas Hasanuddin (UNHAS));*
- 00:00 IoT-based Water Quality Surveillance System Operated through Hilly Terrain and Densely Forest Topology of Microwave Transmission Network  
*Theresia Wuri Oktaviani (Universitas Hasanuddin (UNHAS)); Elyas Palantei (Universitas Hasanuddin (UNHAS)); Dewiani Dewiani (Hasanuddin University);*
- 00:00 Light-load ZVS Control Optimization for Resonant Wireless Power Transfer Systems  
*Yu Cheng Wang (Shanghai Maritime University);*
- 00:00 Design of a Compact Ka-band High-power Microwave Pulse Compressor Based on a Dual-polarization Mode Coupler  
*Xingyu Hao (University of Electronic Science and Technology of China (UESTC)); Bingyang Liang (University of Electronic Science and Technology of China (UESTC)); Zhengguo Zhou (University of Electronic Science and Technology of China (UESTC)); Xingyu Lu (University of Electronic Science and Technology of China (UESTC)); Yubin Gong (University of Electronic Science and Technology of China);*
- 00:00 A Laser-induced GeTe RF Switch Achieving Nanosecond Switching and High RF Performance via Thermal Isolation Layer Design  
*Xinyu Ma (National University of Defense Technology); Sixian Qian (National University of Defense Technology); Yajing Li (National University of Defense Technology); Qiang Chen (National University of Defense Technology); Yunqi Fu (National University of Defense Technology);*
- 00:00 RF MEMS Switches: Path to Industrialization  
*Xiaolong Li (Tsinghua University); Yikun Liu (Tsinghua University); Jiangtao Wei (Tsinghua University); Zewen Liu (Tsinghua University); Yulong Zhang (North University of China);*

- 00:00 Design of a 60-GHz Zero-IF CMOS Receiver Supporting 802.11ad Protocol  
*Zeyu Ren (Tsinghua University); Yi Yao (Tsinghua University); Xi Forest Zhu (University of Technology Sydney); Haigang Feng (Tsinghua University);*
- 00:00 Design of RF Touch Sensor Based on Frequency Coding Defect Grounding Structures  
*Peiqin Zhou (Zhejiang University); Zhihui Wang (Zhejiang University); Zhicheng Shi (Zhejiang University); Huilin Bao (Zhejiang University); Jiangtao Huangfu (Zhejiang University);*
- 00:00 Microwave Sensor Based on Parametric Frequency Divider  
*Lu Yi She (Soochow University); Lei Wang (Soochow University); Yuan Quan Cao (Soochow University); Yunjing Zhang (Soochow University);*
- 00:00 Inverse Design of Bending Silicon-on-insulator Waveguides through an Adjoint Optimization  
*Shan Xue (Tongji University); Hao Zheng Lu (Tongji University); Mei Song Tong (Tongji University);*
- 00:00 Mitigation of Open Stop-band in Leaky Coaxial Cables  
*Kimberly Nguyen (Carleton University); David F. Hardy (Carleton University); Shulabh Gupta (Carleton University);*
- 00:00 A Low-complexity Hybrid SSA-OS-ELM Framework for Digital Predistortion of Wideband Power Amplifiers  
*Shiyu Xiang (Southeast University); Hongcai Chen (Southeast University);*
- 00:00 CSL-incorporated 1200 V SiC JBS Diode with Improved Forward Characteristics  
*Xiaopei Chen (Chengdu Technological University); Anlin Xiong (Chengdu Technological University); Keyuan Zhang (Chengdu Technological University); Quanyuan Feng (Southwest Jiaotong University); Suping Huang (Southwest Jiaotong University);*
- 00:00 Parameter Tuning of Virtual Synchronous Generator Based on Improved Grey Wolf Optimizer  
*Tonghui Xu (Shanghai Maritime University);*
- 00:00 Optimization of a Wideband Frequency Selective Surface for Aperture-shared Antenna Array  
*Jin-Nuo Chen (University of Electronic Science and Technology of China); Wei Shao (University of Electronic Science and Technology of China); Zi-Zhen Shen (University of Electronic Science and Technology of China); Zu-Qin Tong (University of Electronic Science and Technology of China); Li-Ye Xiao (University of Electronic Science and Technology of China);*
- 00:00 Topology Optimization Design of Patch Antenna Based on Multi-physics Coupling  
*Zu-Qin Tong (University of Electronic Science and Technology of China); Wei Shao (University of Electronic Science and Technology of China); Zi-Zhen Shen (University of Electronic Science and Technology of China); Jin-Nuo Chen (University of Electronic Science and Technology of China); Li-Ye Xiao (University of Electronic Science and Technology of China);*
- 00:00 Electromagnetic-thermal Bi-objective Optimization of Frequency Selective Surfaces  
*Zi-Zhen Shen (University of Electronic Science and Technology of China); Wei Shao (University of Electronic Science and Technology of China); Zu-Qin Tong (University of Electronic Science and Technology of China); Jin-Nuo Chen (University of Electronic Science and Technology of China); Li-Ye Xiao (University of Electronic Science and Technology of China);*
- 00:00 Supervised Learning of Oscillatory Neural Networks using Equilibrium Propagation  
*Dobroslav Pavlovich Egorov (Kotelnikov Institute of Radioengineering and Electronics of RAS); A. R. Safin (Kotelnikov Institute of Radioengineering and Electronics of RAS);*
- 00:00 OSIBS: Fast Surrogate-based Multiobjective Optimization for Batch Synthesis of On-chip Deformable Spiral Inductors  
*Chang Liu (Southeast University); Qi Wu (Southeast University);*
- 00:00 Design of a Low-RCS Metasurface Antenna Based on Characteristic Mode Theory  
*Xiao-Li Wang (University of Electronic Science and Technology of China); Wei Shao (University of Electronic Science and Technology of China); Jin-Nuo Chen (University of Electronic Science and Technology of China); Li-Ye Xiao (University of Electronic Science and Technology of China);*
- 00:00 Substrate Integrated Waveguide Slot Antenna Arrays Electromagnetic-thermal Analysis based on DMDc and LSTM  
*Shouyu Qiao (Xiamen University); Qiuyue Wu (Xiamen University); Ke Chen (Xiamen University); Mingwei Zhuang (Xiamen University); Na Liu (Xiamen University);*

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**Session 4A7a**

**Electromagnetic/Multi-physics Modeling and Design of Microwave Components Based on Machine Learning Algorithms**

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**Friday AM, July 31, 2026**

**Room 7 - VIP R3**

Organized by Li-Ye Xiao, Qi Wu

Chaired by Qi Wu

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- 00:00 Inverse Design of Metasurface: From Physically-driven Search to Generative Discovery  
*Jia Nan Zhang (Southeast University); Jian Wei You (Southeast University); Qiang Cheng (Southeast University); Tie Jun Cui (Southeast University);*

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**Session 4A7b**
**Advanced Multiphysics Simulation for RF and Electromagnetic Systems — From Numerical Methods to Intelligent Computing and Their Applications**


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**Friday AM, July 31, 2026**
**Room 7 - VIP R3**

 Organized by Wei E. I. Sha, Xingang Ren
 

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- 00:00 Multi-manifold Feature Fusion Network for Robust Recognition  
*Xinyu Wang (Anhui University); Xianliang Wu (Anhui University); Jin Zhao (Anhui University); Xingang Ren (Anhui University); Junhao Liang (Anhui University); Xuelong Xu (Anhui University);*
- 00:00 A Multi-Fano Channel MIM Waveguide Filter  
*Hui Wang (Hefei Normal University); Qiuyu Liang (Hefei Normal University); Zezhi Zhang (Hefei Normal University); Xingang Ren (Anhui University);*

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**Session 4A10a**
**Innovations and Applications of Microwave Metasurfaces and Antennas**


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**Friday AM, July 31, 2026**
**Room 10 - CR 13**

Organized by Junming Zhao, Bian Wu

 Chaired by Junming Zhao
 

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- 00:00 Origami Inspired Metasurfaces for Frequency-polarization Reconfigurable Manipulation  
*Liqiao Jing (Zhejiang University); Ding Zhang (Zhejiang University); Kai Song (Zhejiang University); Zuo-jia Wang (Zhejiang University);*
- 00:00 Wideband Frequency Selective Rasorber with Continuously Tunable Transmission Band  
*Weixi Xu (Xidian University); Kaili Wei (Xidian University); Bian Wu (Xidian University);*
- 00:00 Full-space Multi-functional Metasurfaces and Their Application in Array Antenna and 5G Wireless Communication  
 Invited *Yijun Feng (Nanjing University);*
- 00:00 Dual-polarized Absorption-transmission Integrated Metasurface for Large Incident Angles  
 Invited *Jifang Ren (Yangtze Delta Region Academy of BIT); Zhongxiang Shen (Yangtze Delta Region Academy of Beijing Institute of Technology);*

- 00:00 Design of a Wideband High-efficiency Dual-Linearly Polarized Transmitarray Antenna Based on Double-layer Metasurfaces

*Hao Wang (Chengdu University of Information Technology); Jiaqing Li (Chengdu University of Information Technology); Ximing Li (Chengdu University of Information Technology); Guo-Hong Du (University of Science and Technology of China); Fengling Peng (Chengdu University of Information Technology);*

- 00:00 Design of a Reconfigurable Frequency Selective Rasorber with Broadband Absorption

*Shanmeng Wang (Xidian University); Kaili Wei (Xidian University); Weixi Xu (Xidian University); Hao Gu (Shanghai Radio Equipment Research Institution); Bian Wu (Xidian University);*


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**Session 4A10b**
**Multifunctional and Reconfigurable Metasurfaces and Their Applications in Antenna Design**


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**Friday AM, July 31, 2026**
**Room 10 - CR 13**

 Organized by Ke Chen, Yueyi Yuan
 

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- 00:00 Transmission Characteristics and Multidimensional Polarization Manipulation of Multi-layer Cascaded Metasurfaces  
 Invited *Yueyi Yuan (Harbin Institute of Technology); Yuxiang Wang (Harbin Institute of Technology); Cong Liu (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology);*
- 00:00 Glass-substrate Metasurfaces for Optically Transparent High-gain Antenna Applications  
 Invited *Ziheng Zhou (Fuzhou University); Guirong Feng (Fuzhou University);*
- 00:00 A VO<sub>2</sub>-based Column-controllable Multifunctional Terahertz Metasurface  
*Mengxuan Zhuang (Fudan University); Wenfeng Yao (Fudan University); Yijie Zhang (Fudan University); Guo-Min Yang (Fudan University);*
- 00:00 3D Möbius Polarization Topology in Propagation-invariant Vector Beams  
*Na Ri (Harbin Institute of Technology); Yueyi Yuan (Harbin Institute of Technology); Yuxiang Wang (Harbin Institute of Technology); Guohui Yang (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology);*
- 00:00 Pre-phase-assisted Broadband Quasi-2-Bit Metasurface for Single-beam Manipulation  
*Chenxi Fan (Nanjing University); Junming Zhao (Nanjing University); Tian Jiang (Nanjing University); Ke Chen (Nanjing University); Yijun Feng (Nanjing University);*

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**Session 4A11**  
**Metamaterials, Plasmonics and Complex Media**

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**Friday AM, July 31, 2026**

**Room 11 - CR 15**

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- 00:00 Chiral Metasurfaces Based on Laterally Shifted Bilayer Split-ring Resonator  
*Jéssica Abranches Pinto Ribeiro (National Institute of Telecommunications (Inatel)); Jhon James Hernández-Sárrria (National Institute of Telecommunications (Inatel)); Luciano Leonel Mendes (National Institute of Telecommunications — Inatel); Jorge Ricardo Mejia-Salazar (National Institute of Telecommunications (Inatel));*
- 00:00 BD-RIS-enabled SWIPT-NOMA: Joint Design for Reliable Information Transfer and Efficient Energy Harvesting  
Invited  
*Eliseu Elias Cândido Moreira (National Institute of Telecommunications); Victoria Dala Pegorara Souto (National Institute of Telecommunications in Brazil); Richard Demo Souza (Federal University of Santa Catarina);*
- 00:00 Design and Applications of Transmissive Metasurfaces for Next-generation Wireless Communication  
*Fengyuan Yang (Shanghai University);*
- 00:00 Chiral Bound States in the Continuum Empowered by Twisted Metasurfaces  
*Min Liu (National University of Defense Technology);*
- 00:00 Geometry-driven Competition between Skin Effect and Topological Edge States in Passive Acoustic Structures  
*Meijuan Liu (Sun Yat-sen University);*
- 00:00 Point Dipole Representation for Plasmonic Interactions in Semiconductor Nanoparticles  
*Zi Wang (Illinois Institute of Technology); Thomas Wong (Illinois Institute of Technology);*
- 00:00 Study on the Spatiotemporal Evolution Characteristics of Non-uniform Ar-Hg Plasma Excited by High-power Microwaves  
*Haoyuan Gu (Harbin Institute of Technology); Xingji Tang (Unit 92942 of the People's Liberation Army of China); Yize Yan (Harbin Institute of Technology); Qiang Liu (Harbin Institute of Technology); Jingfeng Tang (Harbin Institute of Technology);*
- 00:00 Design Optimization of Asymmetric Infrared-transparent Based Dielectric Metasurfaces for Passive Radiative Cooling Applications  
*Mohamad Khoiril Anam (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*
- 00:00 Programmable Acoustic Complex Media for Tailored Scattering and Wavefield Control  
*Hongkuan Zhang (Hong Kong Baptist University); Jiaying Xu (Hong Kong Baptist University); Guancong Ma (Hong Kong Baptist University);*
- 00:00 Towards Fully Printed Flexible Plasmonic Displays with Electrically Tunable Directional Color Dynamics  
*Jialong Peng (National University of Defense Technology);*
- 00:00 Genetically Designed-based Volumetric Metamaterials for Radar Range Enhancement  
*Dmytro Vovchuk (Tel Aviv University); Dmitry Dobrykh (Tel Aviv University); Konstantin Grotov (Tel Aviv University); Anna Mikhailovskaya (Tel Aviv University); Mykola Khobzei (Riga Technical University); Vladyslav Tkach (Riga Technical University); Anton Kharchevskii (Tel Aviv University); Toms Salgals (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University); Pavel Ginzburg (Tel Aviv University);*
- 00:00 Polarization-division Full-space Metasurface for Independent Transmission and Reflection Phase Modulation  
*Shulei Zhang (Air Force Engineering University); Ruichao Zhu (Air Force Engineering University); Fan Wu (Air Force Engineering University); Yuxiang Jia (Air Force Engineering University); Chang Ding (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 N2-channel OAM-polarization Multiplexing via Bi-layer Diffractive Neural Networks  
*Cong Liu (Harbin Institute of Technology); Yueyi Yuan (Harbin Institute of Technology); Yuxiang Wang (Harbin Institute of Technology); Jinxing Li (Harbin Institute of Technology); Guohui Yang (Harbin Institute of Technology); Kuang Zhang (Harbin Institute of Technology);*
- 00:00 Optimizing the Casimir force via Spatial Nonlocality  
*Jieran Chen ();*
- 00:00 Phase-cancellation-based Wideband RCS Reduction Using a 1-Bit Coding Metasurface  
*Awanish Kumar (Univ Grenoble Alpes);*
- 00:00 A Dual-polarization Time-domain Modulated Reconfigurable Electromagnetic Metasurface  
*Peizhou Hu (Air Force Engineering University); Chang Ding ();*
- 00:00 Passive Reconfigurable Intelligent Surface Based on Movable Metasurfaces  
*Weiren Zhu (Shanghai Jiao Tong University);*
- 00:00 Deep Learning-enhanced Complex Permittivity Characterization of Liquid Crystals via Transfer Learning  
*Chang Ding (Harbin Institute of Technology); Huilin Mu (Air Force Engineering University);*
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- Session 4A12a**  
**Quantum Light Source**
- 
- Friday AM, July 31, 2026**  
**Room 12 - CR 16**  
Organized by E Wu
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- 00:00 Femtosecond Laser Writing of Preferentially Orientated Shallow NV Centers in (111) Diamond  
*Botao Wu (East China Normal University); E Wu (East China Normal University);*
- 00:00 Spectroscopy of Single Rare Earth Ions in Solids  
*Kangwei Xia (University of Science and Technology of China);*
- 00:00 Optoelectronic Integrated Neuromorphic Hardware Based on Quantum Dot Light-emitting Memristor: From Multidimensional Visual Perception to Deep Fusion of Memory-Computing-Display  
*Gengxu Chen (Fuzhou University);*
- 00:00 Stable, Tunable High-repetition-rate Operation of Gain-switched Semiconductor Laser  
*Jinxu Fang (University of Shanghai for Science and Technology); Yanyan Qi (University of Shanghai for Science and Technology); Liang Yin (University of Shanghai for Science and Technology); Yan Liang (University of Shanghai for Science and Technology);*
- 00:00 Research on Broadband Laser Amplification of Diamond NV Centers  
*Zitong Wang (East China Normal University); Junjie Lin (); E Wu (East China Normal University);*
- 00:00 A Real-time Dual-comb Ranging System Based on a Single-cavity Mode-locked Fiber Laser and a FPGA Platform  
*Zehui Cui (Nanjing University of Aeronautics and Astronautics); Xiaorong Gu (Nanjing University of Aeronautics and Astronautics); Yao Li (Nanjing University);*
- 00:00 Generation of High-quality Quantum States by Incoherent Light  
*Yuewei Song (University of Science and Technology of China); Heng Zhao (University of Science and Technology of China); Li Chen (University of Science and Technology of China); Zhi-Cheng Guo (University of Science and Technology of China); Ming-Yuan Gao (University of Science and Technology of China); Yin-Hai Li (University of Science and Technology of China); Guang-Can Guo (University of Science and Technology of China); Zhi-Yuan Zhou (University of Science and Technology of China); Baosen Shi (University of Science and Technology of China);*
- 00:00 High-efficiency Multi-wavelength Quantum Light Generation Based on AlGaAs Chip  
*Xiaodong Zheng (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Xu Jing (Nanjing Normal University); Chenbo Liu (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Yufu Li (Nanjing Electronic Devices Institute); Runqiu He (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Lina Xia (Nanjing Normal University); Fei Wang (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Yuechan Kong (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Tangsheng Chen (Nanjing Electronic Devices Institute); Jiayun Dai (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute); Liangliang Lu (Nanjing Normal University); Bin Niu (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute);*

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### Session 4A12b

#### Integrated Photonic Sources and Devices

Friday AM, July 31, 2026

Room 12 - CR 16

Organized by Yan-Xiao Gong, Zhi-Yuan Zhou

Chaired by Yan-Xiao Gong

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- 00:00 High Spectral Purity Photon Source on Thin-film Lithium Niobate  
*Ran Yang (National University of Singapore); Sakthi Sanjeev Mohanraj (National University of Singapore); Dong-Jie Guo (Nanjing University); Lin Zhou (National University of Singapore); Veerendra Dhyani (Agency for Science, Technology and Research (A\*STAR)); Xiaodong Shi (Agency for Science, Technology and Research (A\*STAR)); Hao Hao (National University of Singapore); Guangxing Wu (National University of Singapore); Mengyao Zhao (National University of Singapore); Xu Chen (National University of Singapore); Shi-Ning Zhu (Nanjing University); Yan-Xiao Gong (Nanjing University); Di Zhu (National University of Singapore (NUS));*

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### Session 4A13a

#### Advanced Photonic Integration for On-chip Spectrometry and Sensing

Friday AM, July 31, 2026

Room 13 - CR 17

Organized by Zhenzhou Cheng, Long Zhang

Chaired by Zhenzhou Cheng

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- 00:00 A High-speed Multi-target On-chip Spectrometer with Switchable Spectral Resolution  
*Gaopeng Wang (Zhejiang University); Long Zhang (Zhejiang University); Daoxin Dai (Zhejiang University);*
- 00:00 Prototype-to-chip Design of a Silicon Photonic Fiber-optic Gyroscope  
*Teresa Natale (Polytechnic University of Bari);*
- 00:00 Research Progress of Silicon Photonic Gas Sensors  
*Zhenzhou Cheng (Tianjin University); Zunyue Zhang (Tianjin University);*

00:00 Hyperuniform Disordered Solids Waveguide Gas Sensor  
*Si Chen (State Key Laboratory of Precision Measuring Technology and Instruments); Zhenzhou Cheng (Tianjin University);*

00:00 Chirped Grating Coupler Array for Vertical Multimode Fiber-to-chip Coupling  
*Zhihao Chen (State Key Laboratory of Precision Measuring Technology and Instruments); Zunyue Zhang (Tianjin University); Zhenzhou Cheng (Tianjin University);*

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### Session 4A13b

#### Quantum Electromagnetics, Imaging, Sensing

Friday AM, July 31, 2026

Room 13 - CR 17

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00:00 A Hybrid Quantum-classical Scheme for Solution of Matrix Equation Systems for Analyzing Electromagnetic Scattering Problems

*Rui Chen (Nanjing University of Science and Technology); Teng-Yang Ma (Origin Quantum Computing Technology (Hefei) Co., Ltd.); Meng-Han Dou (Origin Quantum Computing Technology (Hefei) Co., Ltd.); Chao-Fu Wang (Nanjing University of Science and Technology);*

00:00 Eigenstates of Photon Creation Operator and Negative Energy

*Huai-Yu Wang (Tsinghua University);*

00:00 Ab Initio Modeling of Multi-emitter Quantum Electrodynamics in Open and Dissipative Environments

*Hyunwoo Choi (Pohang University of Science and Technology); Junwoo Gim (Pohang University of Science and Technology); Jisang Seo (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);*

00:00 Casimir-polder Interactions of S-state Rydberg Atoms with Graphene

*Kosit Wongcharoenbhorn (University of Nottingham); C. Koller (University of Applied Sciences Wiener Neustadt); T. Mark Fromhold (University of Nottingham); Weibin Li (University of Nottingham);*

00:00 Enhancement of Coherent Stokes Raman Scattering in High-Q Resonators

*Evgenii A. Tereshchenkov (Dukhov Research Institute of Automatics (VNIIA)); Evgeny S. Andrianov (Dukhov Research Institute of Automatics (VNIIA));*

00:00 Rotman Lens Design Using Factorization Machine and Quantum Annealing

*Sanghoek Kim (Kyung Hee University); Yunhee Son (Kyung Hee University);*

00:00 Quantum Computing Method Based on FEM for EM Simulations

*Feng Feng (Tianjin University); X. Li (Tianjin University); Q. J. Zhang (Carleton University);*

00:00 3D Quantum Correlation Imaging with Millimeter Accuracy for Target Detection

*Si Shen (Southwest Institute of Technical Physics); Jiandong Chen (Southwest Institute of Technical Physics); Zichang Zhang (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Shijie Deng (Southwest Institute of Technical Physics); Qiang Xu (Southwest Institute of Technical Physics); Jing Qiu (Southwest Institute of Technical Physics); Shuai Huang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*

00:00 Birefringent Spherulite Optomechanics for Dual Quantum pH and Magnetic Bio-sensing

*Hani Barhum (Triangle Regional R&D Center); Tamara Amro (Triangle Regional R&D Center); Mohammad Attrash (Triangle Regional R&D Center); Pavel Ginzburg (Tel Aviv University); Vjaceslavs Bobrov (Riga Technical University); Nir Bar-Gill (Hebrew University of Jerusalem);*

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### Session 4A14a

#### Emerging Optical and Photonic Sensors

Friday AM, July 31, 2026

Room 14 - VIP R5

Organized by Yongjun Huang, Boyu Fan

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00:00 Optical Sieve for Nanoplastic Detection, Sizing and Counting

*Dominik Ludescher (University of Stuttgart); Lukas Wesemann (The University of Melbourne); Julian Schwab (University of Stuttgart); Julian Karst (University of Stuttgart); Shaban B. Sulejman (The University of Melbourne); Monika Ubl (University of Stuttgart); Brad O. Clarke (University of Melbourne); Ann Roberts (The University of Melbourne); Harald W. Giessen (University of Stuttgart); Mario Hentschel (University of Stuttgart);*

00:00 Investigation of Strain and Temperature Dual-parameter Sensing Based on Forward Stimulated Brillouin Scattering in Lead-silicate Fibers

*Shanglin Hou (Lanzhou University of Technology); Zhiqiang Zhang (Lanzhou University of Technology); Gang Wu (Lanzhou University of Technology); Zuyong Yan (Lanzhou University of Technology); Jingli Lei (Lanzhou University of Technology); Xi Tan (Lanzhou University of Technology);*

00:00 Chalcogenide Glass Heterogeneously Integrated Silicon Photonic Sensors

*Qingyang Du (Zhejiang Lab);*

- 00:00 TiO<sub>2</sub>-modified Multi-channel Photonic Crystal Fiber Based Surface Plasmon Resonance Sensor  
*Hao Feng (Lanzhou University of Technology); Gang Wu (Lanzhou University of Technology); Shanglin Hou (Lanzhou University of Technology); Zuyong Yan (Lanzhou University of Technology); Jingli Lei (Lanzhou University of Technology); Xi Tan (Lanzhou University of Technology);*
- 00:00 Cavity Optomechanics-based Optical Tuning for Frequency Mismatch Compensation in Hemispherical Resonator Gyroscopes  
*Shuyun Xue (University of Electronic Science and Technology of China); Maoyuan Wang (University of Electronic Science and Technology of China); Haosen Li (University of Electronic Science and Technology of China); Ziyue Zhang (University of Electronic Science and Technology of China); Xiaodong Wei (University of Electronic Science and Technology of China); Yongjun Huang (University of Electronic Science and Technology of China); Boyu Fan (University of Electronic Science and Technology of China);*
- 00:00 Chaotic Dynamics in a Six-dimensional Nonlinear Multi-physics Coupled Photonic Crystal Optomechanical System  
*Xiaodong Wei (University of Electronic Science and Technology of China); Maoyuan Wang (University of Electronic Science and Technology of China); Changsong Wang (University of Electronic Science and Technology of China); Xiaolan Liu (University of Electronic Science and Technology of China); Yizhi Ma (KTH Royal Institute of Technology); Ziyue Zhang (University of Electronic Science and Technology of China); Shuyun Xue (University of Electronic Science and Technology of China); Yongjun Huang (University of Electronic Science and Technology of China); Boyu Fan (University of Electronic Science and Technology of China);*
- 00:00 Co-design of Optical and Mechanical Modes in a High-Q Silicon Nitride Photonic Crystal Nanobeam Cavity for Rubidium Hyperfine Transition  
*Ziyue Zhang (University of Electronic Science and Technology of China); Si Huang (University of Electronic Science and Technology of China); Changsong Wang (University of Electronic Science and Technology of China); Shuyun Xue (University of Electronic Science and Technology of China); Xiaodong Wei (University of Electronic Science and Technology of China); Yizhi Ma (KTH Royal Institute of Technology); Yongjun Huang (University of Electronic Science and Technology of China); Boyu Fan (University of Electronic Science and Technology of China);*
- 00:00 Optomechanics Hemispherical Resonator Gyroscope  
*Maoyuan Wang (University of Electronic Science and Technology of China); Shuyun Xue (University of Electronic Science and Technology of China); Haosen Li (University of Electronic Science and Technology of China); Ziyue Zhang (University of Electronic Science and Technology of China); Xiaodong Wei (University of Electronic Science and Technology of China); Yongjun Huang (University of Electronic Science and Technology of China); Boyu Fan (University of Electronic Science and Technology of China);*
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- Session 4A14b**  
**Advanced Polarization and Spectral Imaging Techniques**
- 
- Friday AM, July 31, 2026**  
**Room 14 - VIP R5**  
 Organized by Yiting Yu, Tingbiao Guo  
 Chaired by Tingbiao Guo
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- 00:00 Hybrid Hardware-algorithm Co-design for Liquid-lens Diffractive Spectral Array Imaging  
*Chenxi Li (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Hao Fan (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences); Bo Gao (Xi'an); Weixing Yu (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*
- 00:00 Single-pixel Long-wave Infrared Sensing via Coded Metasurfaces  
*Quanzhou Long (Zhejiang University); Sailing He (Royal Institute of Technology & Zhejiang University); Tingbiao Guo (Zhejiang University);*
- 00:00 Metasurface-empowered Miniaturized Spectroscopic Systems  
*Guangcan Zhou (Hunan University);*
- 00:00 Advanced Multi-functional Silicon On-chip Spectrometers  
*Long Zhang (Zhejiang University);*
- 00:00 Asymmetric Metasurfaces for Light-field Sensing and Processing  
*Zhenchao Liu (Singapore University of Technology and Design);*
- 00:00 Reconfigurable Polarization-encoded Quasi-random Metasurface for Near-infrared Computational Spectral Imaging  
*Xiaohui Geng (Zhejiang University); Tingbiao Guo (Zhejiang University); Sailing He (Royal Institute of Technology & Zhejiang University);*

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**Session 4A15**  
**Optoelectronics, Photovoltaics, and Light**  
**Emitting**

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**Friday AM, July 31, 2026**

**Room 15 - CR 18**

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- 00:00 Optical Design of Photonic Multilayer Structures for Colored Photovoltaic Cells and Modules with Low Optical Losses  
*Catarina G. Ferreira (University of Southern Denmark); Ananta Paul (University of Southern Denmark); Jani Lamminaho (University of Southern Denmark); Eswaran Jayaraman (University of Southern Denmark); Markus Babin (Technical University of Denmark); Nanna L. Andersen (Technical University of Denmark); Sune Thorsteinsson (Technical University of Denmark); Peter B. Poulsen (Technical University of Denmark); Karlis Petersons (Stensborg A/S); Leif Yde (Stensborg A/S); Jan F. Stensborg (Stensborg A/S); N. Asger Mortensen (University of Southern Denmark); Joel D. Cox (University of Southern Denmark); Morten Madsen (University of Southern Denmark);*
- 00:00 Overcoming Boltzmann Losses by Inhibiting Photon Emission in Organic Solar Cells  
*Invited Francisco Bernal-Texca (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); Chiara Cortese (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology); Jordi Martorell (ICFO-Institut de Ciències Fotòniques);*
- 00:00 Theoretical Studies on the Heterogeneous Photoinduced Electron Transfer in Dye-sensitized Solar Cells  
*Ang-Yang Yu (Heilongjiang Agricultural Engineering Vocational College);*
- 00:00 Enhancing the Performance of Red Perovskite Light-emitting Diodes by Alkali Metal Regulation  
*Maixi Zheng (Zhejiang University); Zhixiang Ren (Zhejiang University); Zhenghao Zhao (Zhejiang University); Chen Zou (Zhejiang University); Baodan Zhao (Zhejiang University); Dawei Di (Zhejiang University);*
- 00:00 Design and Fabrication of Wrinkled Structures for High-performance Stretchable OLEDs  
*Da Yin (Jilin University);*

- 00:00 Shift and Incline Measurement with Shearing Interferometer  
*Egor Vladimirovich Adamov (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Egor Andreevich Bogach (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); E. S. Poznaharev (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); Vadim V. Dudorov (V. E. Zuev Institute of Atmospheric Optics SB RAS); E. V. Shesterikov (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)); A. E. Shesterikov (V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS));*
- 00:00 Branch Choice of Leaky or Confined Harmonics for High-order Grating Using Floquet-Bloch Theory  
*Nai-Hsiang Sun (I-Shou University); Ya-Zhou Li (I-Shou University); Yu-Zhe Guo (I-Shou University); Jung-Sheng Chiang (I-Shou University);*
- 00:00 Photonic Neural Network Based on Laser Graded Neurons  
*Yu Huang (Soochow University); Nianqiang Li (Soochow University);*
- 00:00 In-sensor-memory Computing Technologies: Challenges and Opportunities for Post-von Neumann Intelligence  
*Hongyu Tang (Fudan University); Ninghai Yu (Fudan University); Pengsheng Min (Fudan University);*
- 00:00 Diffractive Networks for Intelligent Visual Information Processing  
*Jingtian Hu (Harbin Institute of Technology, Shenzhen); Fenglei Wang (Harbin Institute of Technology, Shenzhen); Yuxiang Sun (Harbin Institute of Technology, Shenzhen);*
- 00:00 Investigation of p-type AlN/GaN Superlattices for High-efficiency Deep UV LEDs  
*Siqi Li (Ningbo Institute of Materials Technology and Engineering, CAS); Wei Guo (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences);*

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**Session 4A16**  
**Optics and Photonics**

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**Friday AM, July 31, 2026**

**Room 16 - CR 19**

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- 00:00 Cavitation Empowerment: Navigation Strategies and Invited Mechanisms of Light-driven Micro-robots  
*Chao-Qing Dai (Zhejiang A&F University);*

- 00:00 Formation of Two- and Three-particle Quasiparticles in a Controlled Optomechanical System  
*Evgenii A. Tereshchenkov (Dukhov Research Institute of Automatics (VNIIA)); Alexander A. Zyablovsky (Dukhov Research Institute of Automatics (VNIIA)); E. S. Andrianov (Dukhov Research Institute of Automatics (VNIIA));*
- 00:00 Spectro-temporal Soliton Buildup Dynamics of Dual-wavelength Mode-locked Fiber Lasers and Spectral Encoded 3D Imaging  
*Keming Wang (Taiyuan University of Technology); Jinze Han (Taiyuan University of Technology); Jie Chen (Taiyuan University of Technology);*
- 00:00 Transition Oxides-based Hydrogen Sensors: From Fabrication to Detection Means and Mechanisms  
*Olga A. Lutikova (Dukhov Automatics Research Institute (VNIIA)); I. N. Askhadullin (Dukhov Automatics Research Institute (VNIIA)); Daria P. Kulikova (Lomonosov Moscow State University); Yevgeniy M. Sgibnev (Lomonosov Moscow State University); M. E. Dokukin (Lomonosov Moscow State University); Alexander V. Baryshev (Lomonosov Moscow State University);*
- 00:00 Modeling for Elliptical Capillaries Cladding Structure of Negative Curvature Hollow-core Fibers  
*Jung-Sheng Chiang (I-Shou University); Meng-Han Sie (I-Shou University); Yu-Cheng Su (I-Shou University); Wei-Te Chien (I-Shou University); Nai-Hsiang Sun (I-Shou University);*
- 00:00 All-polarization-maintaining Dual-cavity Cascaded Passively Mode-locked Fiber Laser and Its Ultrafast Startup Dynamics  
*Menghao Fang (Nanjing University); Qianchao Wu (Nanjing University);*
- 00:00 DFB-laser Based on a Quasirelativistic-momentum-law HgCdTe Quantum Well Structure with a Third-order Bragg Grating  
*Sergey V. Morozov (Institute for Physics of Microstructures of RAS);*
- 00:00 Photocatalytic Hybrid Nanostructures for the Degradation of Emerging Pollutants  
*Andrea Lanfranchi (University of Genova); Riccardo Trevia (University of Genova); Vincenzo Spinoso (University of Florence); Alejandro Martinez-Bueno (University of Florence); Valeria d'Agostino (University of Naples Federico II); Simone Bertucci (Adolphe Merkel Institute); G. Manfredi (Novavido S. r. L, Bologna & Micamo Lab S. r. l.); Paola Lova (University of Genova);*
- 00:00 A Photodiode Effect in 2D Superconductors  
*Anton V. Parafilo (Institute for Basic Science (IBS)); Vadim Kovalev (Institute of Semiconductor Physics); Ivan G. Savenko (Guangdong Technion-Israel Institute of Technology (GTIIT));*
- 00:00 Structured Photon Emission from Geometry Frustrated Lattice  
*Jun Lu (National University of Singapore);*
- 00:00 Acceleration of Optical Computations via Usage of the Detectors as Computing Elements  
*Ivan V. Vovchenko (Dukhov Research Institute of Automatics (VNIIA)); Alexander A. Zyablovsky (Dukhov Research Institute of Automatics (VNIIA)); Alexander A. Pukhov (Institute of Theoretical and Applied Electrodynamics RAS); Evgeny S. Andrianov (Dukhov Research Institute of Automatics (VNIIA));*
- 00:00 Tuning Computational Capacities of Photonic Reservoir Computing via Laser Cavity Size  
*J. Huang (Xidian University); Tao Wang (Xidian University); Kathy Lüdge (Technische Universität Ilmenau); X. Guo (Xidian University); S. Xiang (Xidian University); Y. Hao (Xidian University);*
- 00:00 Bias-free Functional Terahertz Photoconductive Emitters for Direct Wavefront Engineering  
*Haidi Qiu (Tianjin University); Xueqian Zhang (Tianjin University); Jiaguang Han (Tianjin University);*
- 00:00 Design of Quasi-optical Mode Converter for 260-GHz TE<sub>3,2</sub> Gyrotron Azimuthal Standing Wave  
*Yuying Geng (China Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Xianfei Chen (Huazhong University of Science and Technology);*

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**Session 4A17a**
**Advanced Optical Sensors**


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**Friday AM, July 31, 2026**
**Room 17 - CR 20**

Organized by Huan Li, Weixi Liu

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00:00 Power-efficient Computational Spectrometers on Silicon Invited Photonic Chips

*Yiming Ma (Shanghai University);*

00:00 High-performance Passive Integrated Photonic Devices Invited for Fiber Gyroscopes

*Weixi Liu (Zhejiang University);*

00:00 Integrated Fiber Optic Gyroscope Based on Optical Waveguide Chip

*Changkun Feng (Beihang University);*


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**Session 4A18**
**Advanced Millimeter-wave Radar and Optical Sensor Fusion Technology**


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**Friday AM, July 31, 2026**
**Room 18 - VIP R8**

Organized by Yanwen Jiang, Guoyan Wang

Chaired by Yanwen Jiang

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- 00:00 LightID: Joint Gesture and Identity Recognition Based on Optical Display and Sensing  
*Wenhao Kang (Zhejiang University); Peiqin Zhou (Zhejiang University); Chen Huang (Zhejiang University); Mingyang Wu (Zhejiang University); Jiangtao Huangfu (Zhejiang University);*
- 00:00 Optical Flow Estimation with Variational Bayesian Neural Networks  
*Qiming Qi (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Yixuan Fang (National University of Defense Technology); Hongqi Fan (National University of Defense Technology);*
- 00:00 Phase-coded Wavefront Modulation Imaging with Spatially Concentrated Radiation Fields  
*Huanxu Zhan (National University of Defense Technology); Yongqiang Cheng (National University of Defense Technology); Hongyan Liu (National University of Defense Technology); Kang Liu (National University of Defense Technology); Yang Yang (National University of Defense Technology); Zhengkuan Tan (National University of Defense Technology);*
- 00:00 Cyclic Frequency Domain Enhanced Detection Method for Rotary-wing UAVs  
*Chengchen Xia (National University of Defense Technology); Libing Jiang (National University of Defense Technology); Shuo Liu (Xi'an Electronic Engineering Research Institute); Zhuang Wang (National University of Defense Technology);*
- 00:00 Clutter Suppression Method for Marching Vehicle-borne Radar Based on IMU Measurement Data Compensation  
*Shuo Liu (Xi'an Electronic Engineering Research Institute); Libing Jiang (National University of Defense Technology); Guoji Chen (Xi'an Electronic Engineering Research Institute); Chengchen Xia (National University of Defense Technology); Zhuang Wang (National University of Defense Technology);*
- 00:00 Adaptive Keyframe and Feature Management for Multi-camera Visual Odometry  
*Yueshang Zhou (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Yonglei Pan (National University of Defense Technology); Jun Ma (Belarusian State University of Informatics and Radioelectronics); Tsviatkou Viktor (Belarusian State University of Informatics and Radioelectronics); Hongqi Fan (National University of Defense Technology);*
- 00:00 Trustworthy Monocular Depth Estimation with Uncertainty  
*Yixuan Fang (National University of Defense Technology); Dongsheng Li (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Yanwen Jiang (National University of Defense Technology); Jun He (National University of Defense Technology); Dawei Lu (National University of Defense Technology); Hongqi Fan (National University of Defense Technology);*
- 00:00 A Lightweight and Robust Hybrid Visual Odometry for Weak-textured Environments  
*Yonglei Pan (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Jun He (National University of Defense Technology); Hongqi Fan (National University of Defense Technology); Tsviatkou Viktor (Belarusian State University of Informatics and Radioelectronics); Jun Ma (Belarusian State University of Informatics and Radioelectronics);*
- 00:00 Adaptive Natural-landmark Extraction and Robust Trajectory Generation for UAV Dynamic Environment Perception  
*Yuxin Wu (National University of Defense Technology); Zhilong Zhang (National University of Defense Technology); Ziyu He (National University of Defense Technology); Aoxu Liu (National University of Defense Technology); Sijun He (National University of Defense Technology);*
- 00:00 Semantic-guided Radar Point Cloud Enhancement Method via Joint Density and Boundary Awareness  
*ZhengJie Ma (National University of Defense Technology); Yanwen Jiang (National University of Defense Technology); Dawei Lu (National University of Defense Technology); Jun Li (National University of Defense Technology);*
- 00:00 A Miniaturized Prototype of a Shared-aperture Radar-optical Fusion Imaging System  
*Yanwen Jiang (National University of Defense Technology); Hongqi Fan (National University of Defense Technology); Dawei Lu (National University of Defense Technology);*
- 00:00 Globally Consistent Dense Mapping for Collaborative Multi-robot Systems  
*Lian Yu (National University of Defense Technology); Dongsheng Li (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Fei Zhao (National University of Defense Technology); Hongqi Fan (National University of Defense Technology);*
- 00:00 Learning Viewpoint-robust Global Representations for Cross-modal UAV Localization via Dual-stream ConvNeXt  
*Ziyu He (National University of Defense Technology); Zhilong Zhang (National University of Defense Technology); Yuxin Wu (National University of Defense Technology); Xin Li (National University of Defense Technology); Xiangen Zeng (National University of Defense Technology);*
- 00:00 Vision-aided Enhanced Imaging Method for MIMO Radar via Structural Information  
*Qiuyu Liu (National University of Defense Technology); ZhengJie Ma (National University of Defense Technology); Yanwen Jiang (National University of Defense Technology); Hongqi Fan (National University of Defense Technology);*

00:00 Vortex Electromagnetic Wave SAR 3D Imaging in the Downward-looking Sight with UCCA  
*Hanli Zhao (National University of Defense Technology); Kang Liu (National University of Defense Technology); Ping Xu (National University of Defense Technology); Yuzin Chen (National University of Defense Technology);*

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**Session 4A19a**

**Computational EM Characterization of Complex Structured Materials**

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**Friday AM, July 31, 2026**

**Room 19 - CR 27**

Organized by Sheng Sun, Ming-Lin Yang

Chaired by Sheng Sun

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00:00 An Efficient Homogenization Strategy for Radar Cross-section Analysis of Ceramic Lattice Structures in Hypersonic Vehicles

*Ming-Lin Yang (Beijing Institute of Technology); Zichen Li (Beijing Institute of Technology);*

00:00 A Physics-based Equivalent Impedance FDTD Method for Rapid Scattering Analysis of Ceramic Lattices

*Zhicheng Xiao (Anhui University); Ming Fang (Anhui University);*

00:00 An Extraction Method for the Equivalent Electromagnetic Parameters of Composite Electromagnetic Materials

*Jiahui Zhu (University of Electronic Science and Technology of China); Jiahang Liu (University of Electronic Science and Technology of China); Pei-Yao Chen (University of Electronic Science and Technology of China); Sheng Sun (University of Electronic Science and Technology of China);*

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**Session 4A19b**

**Computational Electromagnetics**

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**Friday AM, July 31, 2026**

**Room 19 - CR 27**

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00:00 Electromagnetic-mechanical Simulation of Microspeakers Based on Multi-parameter Dynamic Mode Decomposition

*Qiu Yue Wu (Xiamen University); Shouyu Qiao (Xiamen University); Guoxiong Cai (Xiamen University); Jianliang Zhuo (Xiamen University); Na Liu (Xiamen University);*

00:00 Single Universal FDTD Method for Electrostatics and Electrodynamics

*Eng Leong Tan (Nanyang Technological University);*

00:00 An Efficient Adaptive Implicit-explicit DGTD Method for Large-scale and Multiscale Electromagnetic Simulations

*Youshen Tian (The Hong Kong Polytechnic University); Heng Cao (Shanghai Jiao Tong University); Zhao Guo (Eastern Institute of Technology); Lixiao Wang (Eastern Institute of Technology, Ningbo); Wen Chen (The Hong Kong Polytechnic University); Qing Huo Liu (Eastern Institute of Technology);*

00:00 Diamond Tiling Implementation of Lattice Maxwell Method Scheme for the Simulation of Electromagnetic Phenomena

*Arseniy V. Berezin (National Research Nuclear University MEPhI); Anton V. Ivanov (Keldysh Institute of Applied Mathematics); Vadim D. Levchenko (Keldysh Institute of Applied Mathematics); Anastasia Y. Perepelkina (Keldysh Institute of Applied Mathematics RAS);*

00:00 An Efficient Hybrid TCM-PO Method for Electromagnetic Scattering Analysis of Multiple Objects under the Sea Surface

*Jiaxin Guo (Nanjing University of Science and Technology); Jihong Gu (Nanjing University of Science and Technology); Zhaoyuan Wang (Nanjing University of Science and Technology); Chao-Fu Wang (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);*

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**Session 4A19c**

**Electromagnetics with Artificial Intelligence, Deep Learning, Signal Processing**

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**Friday AM, July 31, 2026**

**Room 19 - CR 27**

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00:00 An Intelligent Anti-interference Acquisition Method for Wireless Broadcast Information

*Zhicheng Shi (ZheJiang University); Wenhao Kang (Zhejiang University); Long Chen (Zhejiang University); Yilu Sun (ZheJiang University); Jiangtao Huangfu (Zhejiang University);*

00:00 Assessing Quality with Advanced 3D X-ray Tomography and Artificial Intelligence

*Dingzhong Han (Carl Zeiss (Shanghai) Co., Ltd.);*

00:00 Deep Learning Based Automatic Modulation Classification of OFDM Subcarrier with Carrier Frequency Offset

*Pengjiang Hu (National University of Defense Technology); Chuanrong Jiang (National University of Defense Technology);*

00:00 Super-resolution Source Reconstruction Based on Time-reversal with High-order Kurtosis

*Xiao-Yao Feng (Hunan Normal University); Zhizhang (David) Chen (Fuzhou University);*

00:00 3D Variable Magnetic Field Generator for Biological Applications

*Ana-Maria Tiuleanu (National Institute for Laser, Plasma and Radiation Physics (NILPRP)); Elena Ionita (Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering); Mihai Serbanescu (National Institute for Laser, Plasma and Radiation Physics (NIL-PRP)); Valentin Ionita (National University for Science and Technology Politehnica Bucharest); Mihai Ciubotaru (Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering); Aurelian Marcu (National Institute for Laser, Plasma and Radiation Physics (NIL-PRP));*

00:00 Empowering EM Design with LLM-driven Workflow

*Hongcai Chen (Southeast University); Ming Gao (Southeast University); Lingrui Shen (Southeast University); Jiarui Zhong (Southeast University);*

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**Session 4A22**  
**Poster Session 8**

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**Friday AM, July 31, 2026**

**9:00 AM - 12:00 AM**

**Poster Area**

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00:00 Ku-band Low-profile Dual-circularly Polarized Shared-aperture Phased Array Antenna

*Ruofan Wang (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Jun Zhou (Chengdu Juji Millimeter Wave Technology Co., Ltd.); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Tong Li Yuan (Southwest University of Science and Technology);*

00:00 Low-profile Antenna Design with AMC Reflector for RFID

*Tenghui Cui (Shandong University); Jingyu Li (Shandong University); Junrui Zhang (Shandong University);*

00:00 Design of Low-profile Broadband Aperture-coupled Metamaterial-based Slot-grating Patch Antennas for Different Frequency Ranges

*Egor Dmitrievich Malev (National Research University "Moscow Power Engineering Institute"); T. A. Trushin (National Research University "Moscow Power Engineering Institute"); Mikhail Sergeevich Mikhailov (National Research University "Moscow Power Engineering Institute"); Valery A. Permyakov (National Research University "Moscow Power Engineering Institute");*

00:00 Miniaturized Vivaldi Electrically Connected Tightly Coupled Array for Wide-angle Time-domain Beam Scanning

*Jialing Xie (Northwest Institute of Nuclear Technology); Hanqing Qiao (Northwest Institute of Nuclear Technology); Xu Fang (Northwest Institute of Nuclear Technology); Ruoyuan Sun (Northwest Institute of Nuclear Technology); Longhui Fang (Northwest Institute of Nuclear Technology);*

00:00 Low-loss Transmission on Metallic Cylindrical Surfaces

*Long Chen (Zhejiang University); Zhihui Wang (Zhejiang University); Butian Chen (Zhejiang University); Hanwen Shen (Zhejiang University); Kaize Lin (Zhejiang University); Jiangtao Huangfu (Zhejiang University);*

00:00 Wideband Filtering Power Divider Based on SIW Resonator

*Pingping Chen (Southwest University of Science and Technology); Zuxue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Mingjie Liu (Southwest University of Science and Technology); Dequan Shang (Southwest University of Science and Technology);*

00:00 Topologically Protected Vertical Interconnects for Glass-based AiP Robust Against Wafer Bonding Errors

*Ge Zhang (Pengcheng Laboratory); Chenyang Wu (Pengcheng Laboratory); Shangcheng Kong (Pengcheng Laboratory); Weichao Li (Pengcheng Laboratory); Xiaofeng Tao (Pengcheng Laboratory);*

00:00 Design of a High-power Photonic Band Gap Gyrotron at 170 GHz

*Jinhong Jiang (Aerospace Information of Research Institute, Chinese Academy of Sciences); Rui Zhang (Aerospace Information Research Institute, Chinese Academy of Sciences); Lu Tian (Aerospace Information Research Institute, Chinese Academy of Sciences); Dengpan Chang (Aerospace Information Research Institute, Chinese Academy of Sciences); Jiawei Wang (Aerospace Information Research Institute, Chinese Academy of Sciences);*

00:00 Research on Asymmetric Mode Control in the Sub-Terahertz Coaxial Overmoded Cerenkov Generator Based on Slotted Slow Wave Structure

*Junqing Wang (Tsinghua University); Renzhen Xiao (Northwest Institute of Nuclear Technology); Kun Chen (Northwest Institute of Nuclear Technology);*

00:00 A Flexible Intelligent Bandage Sensor Antenna Based on Chipless RFID Technology

*Xiao Shuai Li (Tongji University); Shan Xue (Tongji University); Mei Song Tong (Tongji University);*

00:00 Mini-ConvNeXtV2 with Global Response Normalization for Robust Wind Farm Clutter Recognition in Weather Radar

*Chenyu Ye (Chengdu University of Information Technology); Qiangyu Zeng (Chengdu University of Information Technology); Jianxin He (Chengdu University of Information Technology); Hao Wang (Chengdu University of Information Technology); Kai Cheng (Chengdu University of Information Technology);*

- 00:00 Sidelobe Orthogonalization of Squint SAR Based on Spectrum Weighting  
*Jingyu Xue (National University of Defense Technology); Leping Chen (National University of Defense Technology); Dao Xiang An (National University of Defense Technology);*
- 00:00 Simulation of Dynamic Electromagnetic Characteristics of Dual-plane Linear Array Electromagnetic Tomography Based COMSOL Moving Mesh  
*Yong Li (Public Security Department, Fujian Police College); Liyun Ou (Public Security Department, Fujian Police College); Qinli Zhu (Fujian Agriculture and Forestry University);*
- 00:00 An Acoustic Environment Sensing Method  
*Haoyin Wang (University of Electronic Science and Technology of China); Zhihui Wang (Zhejiang University); Peiqin Zhou (Zhejiang University); Wenhao Kang (Zhejiang University); Jiangtao Huangfu (Zhejiang University);*
- 00:00 Validation of Mironov's Dielectric Models for Calculating the Complex Permittivity of Organic Soils Sampled from Test Plots in the Norilsk Urban District in Russia  
*Sergey Viktorovich Fomin (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences); Andrey Yu. Karavayskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences); Konstantin Victorovich Muzalevskiy (Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences);*
- 00:00 Emission Imaging for Terrain with Subsurface Anomaly  
*Dongjin Bai (National Space Science Center, Chinese Academy of Sciences); Saibun Tjuatja (University of Texas at Arlington);*
- 00:00 The Application of Optical Quantum Detection Technology  
*Ruomei Jiang (Southwest Institute of Technical Physics); Beitong Cheng (Southwest Institute of Technical Physics); Jing Qiu (Southwest Institute of Technical Physics); Zichang Zhang (Southwest Institute of Technical Physics); Si Shen (University of Electronic Science and Technology); Shuai Huang (Southwest Institute of Technical Physics); Tong Li (Southwest Institute of Technical Physics); Mengke Cai (Southwest Institute of Technical Physics); Wei Zhang (Southwest Institute of Technical Physics); Haizhi Song (Southwest Institute of Technical Physics & UESTC);*
- 00:00 Adaptive Wide-speed-range Sensorless Control of PMSMs Using High-frequency Injection and a Back-EMF Sliding-mode Observer  
*Changjie Huang (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Li Wu (Southwest University of Science and Technology); Siyue Qiu (Southwest University of Science and Technology); Huanfa Yi (Southwest University of Science and Technology); Hui Zhao (Southwest University of Science and Technology); Yangli Liu (Southwest University of Science and Technology); Yuchen Zhang (Southwest University of Science and Technology);*
- 00:00 Research on Energy-information Mutual Transmission Method for Casing Annulus in Extreme Environments  
*Jin Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yiran Ma (Southwest University of Science and Technology); Liming Yu (Southwest University of Science and Technology); Yilin Huang (Southwest University of Science and Technology); Chenhao Fang (Southwest University of Science and Technology);*
- 00:00 Parameter Identification and State Estimation for Lithium-ion Batteries Based on a Second-order RC Model and Dual Extended Kalman Filter  
*Xinyang Huang (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Hao Yang (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Yuying Zhu (Southwest University of Science and Technology); Jun Fan (Southwest University of Science and Technology);*
- 00:00 Fractional-order Adaptive Unscented Kalman Filter with Optimal Sigma Points and Marginalization for Lithium-ion Battery State of Charge Estimation  
*Li Xie (Southwest University of Science and Technology); Liang Luo (Southwest University of Science and Technology); Zhenhua Quan (Southwest University of Science and Technology); Kunle Wang (Southwest University of Science and Technology);*
- 00:00 Research on SOC Estimation of Lead-acid Batteries Based on Extreme Learning Machine and Adaptive Extended Kalman Filter  
*Qiu He (Southwest University of Science and Technology); Yuying Zhu (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Mingcan Li (Southwest University of Science and Technology); Junfeng Luo (Southwest University of Science and Technology); Mingjie Li (Southwest University of Science and Technology);*

- 00:00 Experimental Verification of the Nonlinear Characteristics of the Dispersion Relation in Composite Right/Left-handed Transmission Line Devices  
*Xin Shu (Southwest Jiaotong University); Songning Wang (Southwest Jiaotong University); Qing Tang (Southwest Jiaotong University); Zhonghao Ding (Southwest Jiaotong University); Lianfu Wei (Southwest Jiaotong University);*
- 00:00 A 2.5–2.9 GHz Low-phase-noise LC-VCO with a Fully Integrated High-PSRR LDO in 0.18- $\mu\text{m}$  CMOS  
*Yuming Su (Guangzhou University); Lin Peng (Guangzhou University); Keshan Guo (Guangzhou University); Yibo Li (Guangzhou University); Yufan Xie (Guangzhou University); Yuqian Han (Guangzhou University); Mengding Guo (Guangzhou University);*
- 00:00 A 93 to 102 GHz SiGe BiCMOS Sub-THz Wireless Interconnect with a Broadband Signal Source and a Highly-efficient Power Amplifier  
*Zicheng Liang (Guangzhou University); Rui Yu (Guangzhou University); Xiuqiong Li (Guangzhou University); Yisi Yang (Guangzhou University); Jingmin Jiang (Guangzhou University); Rui Ma (Guangzhou University); Yifan Li (Guangzhou University); Zihua Xia (Guangzhou University);*
- 00:00 Study of Discretization Uncertainty of Fields of the Vertically Polarized EMP Radiated-wave Simulator with a Cylindrical Object  
*Xiang-Qin Zhu (Northwest Institute of Nuclear Technology); Wei Wu (Northwest Institute of Nuclear Technology); Weixi Luo (Northwest Institute of Nuclear Technology); Hongfu Xia (Northwest Institute of Nuclear Technology);*
- 00:00 Time-resolved Emittance Measurements for the High-current Ion Extracted from Gyrotron Produced Dense ECR Plasma  
*Vadim A. Skalyga (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); I. V. Izotov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. V. Golubev (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); A. V. Polyakov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. V. Razin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); S. S. Vybin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences);*
- 00:00 Backscattering-immune Spin-locked Edge Transport in an All-dielectric 2D Topological Insulator  
*Jiangnan Xing (ITMO University); Georgiy Kurganov (ITMO University); Dmitry V. Zhirihin (ITMO University);*
- 00:00 Differentiable Forward Modeling and Optimization of Laser Beam Shaping Elements  
*Dawei Lin (Tianjin University); Degang Xu (Tianjin University); Jiarui Zou (Tianjin University); Yue Sun (Tianjin University); Yuantao Zhao (Tianjin University); Kai Chen (Tianjin University); Yuye Wang (Tianjin University); Jianquan Yao (Tianjin University);*
- 00:00 Performance Evaluation of M-PAM Modulation Formats: 10 Gbit/s NRZ and 20 Gbit/s PAM-4 in Optical Fiber Transmission Systems  
*Dmitrijs Prigunovs (Riga Technical University); Denis Zurikovs (Riga Technical University); Vladislavs Vasiljevs (Riga Technical University); Toms Salgals (Riga Technical University); Inese Parfjonova (Riga Technical University (RTU)); Patriks Morevs (Riga Technical University); Sintija Berzina (Riga Technical University (RTU)); Edgars Kazoks (Riga Technical University); Nataļja Muračova (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Quasi-static Dispersion Tuning via 3D Printing Infill Ratio in Low-symmetry Hexagonal Photonic Crystals  
*Ozgur Onder Karakilinc (Pamukkale University);*
- 00:00 A Novel Method for Estimating the Baseline Inclination Angle of Wide-swath Altimeter  
*Wenshuai Zhai (National Space Science Center, Chinese Academy of Sciences); Yunhua Zhang (National Space Science Center, Chinese Academy of Sciences); Xiao Dong (National Space Science Center, Chinese Academy of Sciences); Xueyan Kang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Experimental Observation of the Quantum Boomerang Effect in a Photonic Waveguide Array  
*Zhaoxin Wu (Zhejiang University); Xiangrui Hou (Zhejiang University); Zhaoju Yang (Zhejiang University);*
- 00:00 Quasi-continuous-wave Background during State Transition of Soliton Molecules in Fiber Lasers  
*Xin Yan (Zhejiang A&F University); Jun-Yi Ye (Zhejiang A&F University); Chao-Qing Dai (Zhejiang A&F University);*
- 00:00 A High-power Triplexer Based on a Three-branch Filter Structure  
*Xinhong Cui (Key Laboratory of Advanced Science and Technology on High Power Microwave); Ning Zhou (Key Laboratory of Advanced Science and Technology on High Power Microwave); Zhong-Hai Zhang (Hangzhou Dianzi University); Zujin Hong (Hangzhou Dianzi University); Youyou Gui (Key Laboratory of Advanced Science and Technology on High Power Microwave); Yanchao Shi (Key Laboratory of Advanced Science and Technology on High Power Microwave);*
- 00:00 Simulation of SAR Imaging for Dynamic Ship Targets  
*Chun Wen (Ocean University of China); Yunhua Wang (Ocean University of China); Ziqi Cheng (Ocean University of China);*

- 00:00 Joint Denoising and Recognition Network for Radar Signals Based on Bayesian Multi-task Learning  
*Yanping Liao (Harbin Engineering University); Chengming Niu (Harbin Engineering University); Qiang Guo (Harbin Engineering University);*
- 00:00 Research on InSAR PU Network Combining Improved U-net and SQD-LSTM  
*Limin Zhai (National Space Science Center, Chinese Academy of Sciences); Yifan Gong (National Space Science Center, Chinese Academy of Sciences); Xi-angkun Zhang (National Space Science Center, Chinese Academy of Sciences);*
- 00:00 Analysis of Quantum Technology-based Sensors and Integration with Fiber Optical Technologies  
*Ugis Senkans (Riga Technical University); Richards Murnieks (Riga Technical University); Andis Supe (Riga Technical University); Karina Prokopovica (Riga Technical University); Nauris Silkans (Riga Technical University); Martins Caune (Riga Technical University); Ricards Kudojars (Riga Technical University); Jurgis Porins (Riga Technical University); Xiaodan Pang (Zhejiang University); Sandis Spolitis (Riga Technical University); Janis Braunfelds (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);*
- 00:00 Novel Broadband Matching Structure for CBGA Package RF Interfaces Based on Resonant Cavity  
*Lai-Fu Jin (East China Research Institute of Electronic Engineering); Pengfei Yu (East China Research Institute of Electronic Engineering);*
- 00:00 AI-enhanced Denoising and Multi-feature Fusion for Interpretability Improvement in Underground Coal Mine Audio-frequency Electrical Prospecting  
*Mingxing Li (Shandong Vocational College of Science and Technology); Yanli Xiao (Shandong Provincial No. 4 Institute of Geological and Mineral Survey); Xiaoqiang Liu (Shandong Vocational College of Science and Technology); Shunfu Xu (Shandong Vocational College of Science and Technology); Yadi Liu (Shandong Vocational College of Science and Technology);*
- 00:00 A Novel Method for Correcting Azimuthal Amplitude Taper in RCS Measurement Based on Angular Doppler  
*Qunting Ren (National Key Laboratory of Scattering and Radiation); Ming Lv (National Key Laboratory of Scattering and Radiation); Shun Liu (National Key Laboratory of Scattering and Radiation); Zhihe Xiao (National Key Laboratory of Scattering and Radiation); Xi-anjun Sun (National Key Laboratory of Scattering and Radiation);*
- 00:00 Infrared-to-visible Light Up-conversion by Chiral Bismuth Halides  
*Stepan Ilin (ITMO University); Lev E. Zelenkov (Harbin Institute of Technology); Sergey V. Makarov (ITMO University);*
- 00:00 Decoupling Analysis Based on the PEEC Method  
*Xiaoping Li (Southwest University of Science and Technology); Xu Wang (DeTooLIC Technology Co., Ltd.); Anfeng Huang (DeTooLIC Technology Co., Ltd.); Yin Sun (DeTooLIC Technology Co., Ltd.); Qiusen He (Zhejiang University); Jun Fan (Southwest University of Science and Technology); Xiaohe Chen (China University of Petroleum); Jingkun Mao (Tianjin University of Technology);*
- 00:00 Electromagnetic Scattering by PEC — Dielectric Composite Objects: A New PMCHW Formulation and Treatment of Junctions  
*Svevo Bandelier (University CY Cergy Paris); Christian Daveau (University CY Cergy Paris);*
- 00:00 Multi-objective Metasurface Design via a Closed-loop MOPSO-CNN Framework  
*Yiming Liao (Nanjing University of Science and Technology); Tiantian Shi (Nanjing University); Feng Zhang (Nanjing University); Xiaoli Ji (Nanjing University);*
- 00:00 Metasurface-based Non-orthogonal Tri-channel Polarization Multiplexing for Optical Encryption  
*Xing-Yuan Huo (Nanjing University); Yu Liu (Nanjing University); Yu-Tong Xiao (Nanjing University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University);*
- 00:00 808 nm Laser Induces Immunomodulatory Activation of Natural Killer Cells in Vitro and in Vivo  
*Qi Li (Northwestern Polytechnical University); Ding Wang (Northwestern Polytechnical University); Zijie Liu (Northwestern Polytechnical University); Yuan Yin (Northwestern Polytechnical University); Yuanyuan Qu (Northwestern Polytechnical University); Yun Ye (Northwestern Polytechnical University); Huyan Ting (Northwestern Polytechnical University);*
- 00:00 Optical Spin Transport: Spin Wave and Currents  
*Abanoub Maher Semry Mikhail (Harbin Engineering University); Maxim Mazanov (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);*
- 00:00 A V-shaped Enhanced Bilateral Multi-subarray Padded Coprime Array for 2-D DOA Estimation  
*Yanping Liao (Harbin Engineering University); Zhenghao Xie (Harbin Engineering University); Qiang Guo (Harbin Engineering University);*
- 00:00 A Ka-band Extended Interaction Oscillator Based on Carbon Nanotube Cold Cathode  
*Qingyun Chen (Nanjing University of Posts and Telecommunications); Wei Xu (Nanjing University of Posts and Telecommunications); Xuesong Yuan (University of Electronic Science and Technology of China); Qingying Ren (Nanjing University of Posts and Telecommunications); Jie Xu (Nanjing University of Posts and Telecommunications); Jinze Li (Nanjing University of Posts and Telecommunications); Wei Li (Nanjing University of Posts and Telecommunications); Lin Meng (University of Electronic Science and Technology of China);*

- 00:00 Physical Semantic-guided Image-text Contrastive Learning for SAR Target Recognition  
*Chunxiao Wu (Nanjing Research Institute of Electronics Technology); Cheng Wu (Nanjing Research Institute of Electronics Technology); Huixin Huang (Nanjing Research Institute of Electronics Technology); Yuanji Li (Nanjing Research Institute of Electronics Technology); Linghao Xia (Nanjing Research Institute of Electronics Technology);*
- 00:00 A Robust Bi-iterative Method for TDOA/FDOA-based Moving Target Localization with Sensor Position Uncertainties  
*Yanping Liao (Harbin Engineering University); Xin Li (Harbin Engineering University); Qiang Guo (Harbin Engineering University);*
- 00:00 Multidimensional Microwave Scattering Signatures of Breaking Waves  
*Jianbo Cui (Ocean University of China); Yunhua Wang (Ocean University of China); Yanmin Zhang (Ocean University of China); Pengbo Du (Ocean University of China); Fanwei Su (Ocean University of China);*
- 00:00 Synchronous Optical Pumping and RF Pulse Modulation of Free-induction-decay Atomic Magnetometer  
*Jinghong Xu (Beihang University); Haowen Tian (Beihang University); Wenjing Tian (Beihang University); Chi Fang (National Institute of Extremely-Weak Magnetic Field Infrastructure); Jiali Liu (National Institute of Extremely-Weak Magnetic Field Infrastructure); Liwei Jiang (Beihang University);*
- 00:00 Interference Experiments for Analog Optical Computing  
*D. Yu Tsipenyuk (All-Russian Institute of Scientific and Technical Information of the Russian Academy of Sciences); V. P. Slobodyanin (Institute of Physics and Technology); A. V. Voropinov (LaserGraphicArt Ltd);*
- 00:00 A Metasurface-based Asymmetric Transmission Horn Antenna  
*Haoyuan Liu (Harbin Engineering University);*
- 00:00 Predicting the Conductive Mesh Configurations through Modeling and Simulations for Transparent EM Shielded Materials  
*Abdur Rehman (National University of Sciences & Technology); Rahim Jan (National University of Sciences and Technology); Akhtar Hussain (National University of Sciences & Technology);*
- 00:00 Four Port MIMO Antenna for V2X Communication-formula Student  
*Sovit Agrawal (SRM Institute of Science and Technology); Himanshu Kumar (SRM Institute of Science and Technology); Bornik De (SRM Institute of Science and Technology); D. Tharani (SRM Institute of Science and Technology);*
- 00:00 Application of ICF Doppler Shift for Observing Wave Spectra Using GNSS Multisource Reflectometry  
*Fanwei Su (Ocean University of China); Yunhua Wang (Ocean University of China); Jianbo Cui (Ocean University of China); Qian Li (Xidian University); Pengbo Du (Ocean University of China);*
- 00:00 Mitigation of Beam-induced Electromagnetic Resonances Using Metamaterials in Particle Accelerators  
*Leonardo Sito (University of Naples Federico II); Francesco Fienga (University of Naples Federico II); Vincenzo Romano Marrazzo (University of Naples Federico II); Benoit Salvant (CERN); Carlo Zannini (CERN); Giovanni Breglio (University of Naples Federico II);*
- 00:00 Improving Pulse Compression Detection of Human Mouth-click Signals Using Bio-inspired Gammatone Filters  
*Mohd Azhar Ahmad (Universiti Putra Malaysia (UPM)); Nur Luqman Saleh (Universiti Putra Malaysia (UPM)); Nur Emileen Abd Rashid (Universiti Teknologi MARA); Khairul Khaizi Mohd Shariff (Universiti Teknologi MARA);*
- 00:00 Analysis of Electromagnetic Coupling Mechanism of Reverberation Chamber Method for Chip-level Radiated Immunity Testing  
*Honghai Liu (National University of Defense Technology); Jianfei Wu (National University of Defense Technology); Ledong Chen (National University of Defense Technology); Fukang Niu (National University of Defense Technology);*
- 00:00 Efficient Classical Surrogates for Fermionic Systems  
*Ya-Dong Wu (Shanghai Jiao Tong University);*
- 00:00 Multispectral Imaging with a Planar Cavity-type Metasurface for Optical Security  
*Dongkyun Kang (Yonsei University); Jungwoo Pyo (Yonsei University); Jaehyeong Kim (Yonsei University); Hwajin An (Yonsei University); Myeongkyu Lee (Yonsei University);*
- 00:00 Phase-change-material-based Flexible Metasurfaces for Electrically Tuned Broadband Infrared Image Steganography  
*Yu-Tong Xiao (Nanjing University); Yu Liu (Nanjing University); Ben-Qi Hou (Nanjing University); Xing-Yuan Huo (Nanjing University); Ruwen Peng (Nanjing University); Mu Wang (Nanjing University);*
- 00:00 Optical Isolator Based on a Subwavelength Integrated Optical Metawaveguide  
*Nikita G. Iukhtanov (ITMO University); Roman S. Savelev (ITMO University); Ilya A. Volkov (ITMO University); Mikhail V. Rybin (ITMO University); Mihail I. Petrov (ITMO University);*
- 00:00 Wideband Few-mode Optical Fiber with Large Effective Area, Controlled Differential Mode Delay and Minimized Scattering for Mode Division Multiplexing  
*Pramod Ramdasrao Watekar (Indian Institute of Technology); Shailendra Kumar Varshney (Indian Institute of Technology);*

- 00:00 An Electrically Small Composite Monopole Antenna for Long-wave Bands  
*Shangkun Ge (Yangtze Delta Region Academy of BIT); Juncheng Liu (Beijing Institute of Radio Metrology and Measurement); Mengshi Chen (Beijing Institute of Radio Metrology and Measurement); Zhongxiang Shen (Yangtze Delta Region Academy of Beijing Institute of Technology);*
- 00:00 Adaptive Sum and Difference Beamforming with Low Impact in ‘Canyon Shaped’ Null Regions for Array Monopulse Angle Estimation  
*Yixi Zhang (National University of Defense Technology); Jiazhi Ma (National University of Defense Technology); Yukai Kong (National University of Defense Technology);*
- 00:00 Research on Radar Focused Imaging Technology of Large Target Based on Moving Platform in Field Environment  
*Shun Liu (National Key Laboratory of Scattering and Radiation); Ming Lyu (National Key Laboratory of Scattering and Radiation); Haohao Hou (National Key Laboratory of Scattering and Radiation); Qunting Ren (National Key Laboratory of Scattering and Radiation); Tiering Wang (National Key Laboratory of Scattering and Radiation); Congcong Wang (National Key Laboratory of Scattering and Radiation);*
- 00:00 Robust Parameter Estimation of Mixed ISRJ Based on an FRFT-guided Cross-domain Attention Mechanism  
*Zhiyong Song (National University of Defense Technology); Siyu Wang (National University of Defense Technology);*
- 00:00 Semi-supervised SAR Sea Ice Classification via Multi-stage Manifold Mixup and Consistency Constraints  
*Haitao Huang (Tianjin University);*
- 00:00 Internal Electromagnetic Environment Prediction of Apertured Enclosures Based on Artificial Neural Networks  
*Sen Zhang (Chengdu University of Information Technology); Bo-Yan Zhang (Chengdu University of Information Technology); Qiangming Cai (Southwest University of Science and Technology); Yuan Zhang (University of Electronic Science and Technology of China); Yuan Zhao (Chengdu University of Information Technology);*
- 00:00 Dual-polarization Programmable Metasurface for Non-line-of-sight Human Vital Sign Detection  
*Fangyuan Qi (Air Force Engineering University); Yong-Xiang Hong (Hunan University); Ruichao Zhu (Air Force Engineering University); Zhihui Zhang (Air Force Engineering University); Guodong Han (Air Force Engineering University); Zuntian Chu (Air Force Engineering University); Jingxian Zhang (Air Force Engineering University); Zhihao Guo (Air Force Engineering University); Shulei Zhang (Air Force Engineering University); Weiqiang Gong (Air Force Engineering University); Sai Sui (Air Force Engineering University); Xinmin Fu (Air Force Engineering University); Fenglin Wang (Hunan University); Jiafu Wang (Air Force Engineering University);*
- 00:00 Direct Binary Search Co-optimization of Grating and Bottom DBR for a High-efficiency and Broadband SOI Grating Coupler  
*Zhe Sun (China Electronic Product Reliability and Environmental Testing Research Institute); Jing He (Nankai University); Chengyao Liu (Nankai University); Yalong Xu (Nankai University); Kunpeng Zhai (Nankai University); Huashun Wen (Nankai University); Ninghua Zhu (Nankai University);*
- 00:00 Illumination-intensity-controlled Bipolar Photoresponse in an  $\alpha$ -Ga<sub>2</sub>O<sub>3</sub> Nanorod-array Photoelectrochemical Device for Edge-enhanced Imaging  
*Shuo Jin (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);*
- 00:00 Compact Millimeter-wave Triple-layer Substrate-integrated Waveguide 12×12 Butler Matrix and Its Multibeam Antenna Application  
*Junteng Hu (Nanjing University of Science and Technology); Ji-Wei Lian (Nanjing University of Science and Technology);*
- 00:00 Analysis of the Impact of Multiple Environmental Parameters on L-band Forward Scattering Coefficient Based on CYGNSS Data  
*Zihan Zhao (Ocean University of China); Yunhua Wang (Ocean University of China); Fanwei Su (Ocean University of China);*
- 00:00 Simultaneous Surface Plasmon Resonance at Multi-wavelength Based on Aluminum Thin Films  
*Zhiying Chen (Dalian University of Technology); Zihao Luo (Dalian University of Technology); Xue Han (Dalian University of Technology);*
- 00:00 Distributed Cooperative Spectrum Sensing Technology Based on Edge Computing  
*Mengbo Zhang (National University of Defense Technology); Hui Feng (National University of Defense Technology); Yingke Lei (National University of Defense Technology);*

- 00:00 Physics-driven Surrogate-enabled Optimization of Decoupling Capacitors in PDNs under Target-impedance Constraints  
*Qiyu Jiang (Beijing University of Posts and Telecommunications); Wenyu Yin (Beijing University of Posts and Telecommunications); Shufang Li (Beijing University of Posts and Telecommunications); Xiaohe Chen (China University of Petroleum);*
- 00:00 Machine Learning Approach for Accelerating Optimal Qubit Mapping  
*Wenjie Sun (University of Electronic Science and Technology of China); Xiao Yu Li (University of Electronic Science and Technology of China); Lianhui Yu (University of Electronic Science and Technology of China); Zhigang Wang (University of Electronic Science and Technology of China); Geng Chen (University of Electronic Science and Technology of China); Guowu Yang (University of Electronic Science and Technology of China);*
- 00:00 Fiber-facet-integrated Fluoride-glass Metasurfaces for High-performance Bessel Beam Array Generation  
*Chenyang Wu (Pengcheng Laboratory); Ge Zhang (Pengcheng Laboratory); Zhen Zhen (Pengcheng Laboratory); Hui Chen (Pengcheng Laboratory); Siyue Jin (Pengcheng Laboratory); Lei Wang (Pengcheng Laboratory);*
- 00:00 Strong Coupling of Hybrid Photonic-plasmonic Quasiparticles in Mid-infrared hBN-based Heterostructures  
*Ying Liu (National University of Defense Technology); Xu Yang (National University of Defense Technology); Yi Shen (National University of Defense Technology); Chengbin Han (Nanjing University of Science and Technology); Shangjing Xu (Nanjing University of Science and Technology); Liyong Jiang (Nanjing University of Science and Technology);*
- 00:00 Optimization of Gain for the Dual-MCP Multiplication System  
*Weijie Jiang (Jinling Institute of Technology); Shulin Liu (Institute of High Energy Physics (IHEP) of CAS); Xingchao Wang (North Night Vision Technology (NNVT) CO., LTD); Lin Chen (Jinling Institute of Technology); Weijie Jiang (Jinling Institute of Technology); Liping Tian (Jinling Institute of Technology);*
- 00:00 Radiation and Scattering Analysis of Embedded Omnidirectional Vertical-polarization Antennas  
*Longjian Zhou (Southwest University of Science and Technology); Haonan Huang (Southwest University of Science and Technology); Qiangming Cai (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology);*
- 00:00 Design and Simulation of Charge Pump Phase-locked Loop  
*Xin-Hong Liu (Beijing Information Technology College);*
- 00:00 Microwave Linear Polarization Direction Measurement Based on Microwave-induced Thermoacoustic Effect  
*Shimeng Xie (University of Electronic Science and Technology of China); Lin Huang (University of Electronic Science and Technology of China);*
- 00:00 SMU2-Net: A Cross-scale Information Fusion Framework for Internal Waves Segmentation from SAR Imagery  
*Zhao Li (Inner Mongolia Normal University); B. Saheya (Inner Mongolia Normal University); Zhijie An (Inner Mongolia Normal University);*
- 00:00 Retrieval Forecasting of Global Total Precipitable Water Using Deep Neural Networks from FY-3D MWHS-II Data  
*Xiaoyan Zhang (Fudan University); Geng-Ming Jiang (Fudan University);*
- 00:00 Field Analysis of Dual Port Electromagnetic Radiation Cavity Based on XGBoost  
*Shiqi Wang (Shenyang City University);*
- 00:00 An Intelligent Dual-mode Reconfigurable Metasurface for Integrated Stealth and Communication  
*Zhihao Guo (Air Force Engineering University); Fangyuan Qi (Air Force Engineering University); Yongfeng Li (Air Force Engineering University); Zhe Qin (Air Force Engineering University); Jiechu Liu (Air Force Engineering University); Lixin Jiang (Air Force Engineering University); Hao Yang (Air Force Engineering University); Shulei Zhang (Air Force Engineering University); Wenjie Wang (Air Force Engineering University); Hongya Chen (Air Force Engineering University); Lin Zheng (Air Force Engineering University); Jiafu Wang (Air Force Engineering University);*
- 00:00 Vertical-lateral Transport Decoupling in Graphene-insulator-silicon Photodetectors for Fast Visible Detection  
*Tianxiang Zhao (Southeast University); Junjia Wang (Southeast University);*
- 00:00 Moth Eye Nanostructures with Enhanced Antireflection on Curved Surfaces and Fibre Optics  
*Zhaolu Diao (Max Planck Institute for Medical Research); J. P. Spatz (Max Planck Institute for Medical Research);*
- 00:00 Binary-valued Modulation for Optimized High-order Sidelobe Reduction in Waveguide Slot Antenna Arrays  
*Ze Yu (The 38th Research Institute of China Electronic Technology Group Corporation); Hao Fan (The 38th Research Institute of China Electronic Technology Group Corporation); C. Chen (University of Science and Technology of China); Weidong Chen (University of Science and Technology of China);*
- 00:00 Graphene Josephson Junctions for the Development of Broadband Electromagnetic Radiation Detectors  
*Igor A. Gayduchenko (Moscow State University of Education (MSPU)); Kirill V. Shein (National Research University "Higher School of Economics"); Grigory N. Gol'tsman (Moscow Pedagogical State University); D. A. Bandurin (National University of Singapore);*