

PIERS 2026 Suzhou

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

Program

July 27–31, 2026
Suzhou, CHINA

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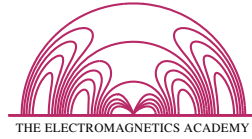
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12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-15:30	Sessions 13:00-15:30	Sessions 13:00-16:00	Sessions 13:00-15:30	Sessions 13:00-15:30	
15:30-16:00	Coffee Break	Coffee Break 16:00-16:30	Coffee Break	Coffee Break	
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- BSPTA: Short-Oral Presentations for Best Student Presentation Awards Competition					

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The mission of TEMA is to establish a global forum and collaborative environment for researchers to exchange and discuss their findings in a harmonious, inclusive manner. TEMA sponsors PhotonIcs and Electromagnetics Research Symposium (PIERS), also known as Progress In Electromagnetics Research Symposium, and the PhotonIcs and Electromagnetics Research Journals (PIER Journals). PIERS and PIER Journals aim to promote and accelerate the growth of science and technology worldwide, particularly in areas related to Maxwell’s equations. This encompasses a wide range of frequencies, length scales, and topics, from classical electromagnetics to quantum optics and electromagnetics. Given the breadth and depth of this field, priority will be given to emerging and innovative areas. PIERS will serve as a platform for networking, knowledge sharing, and dissemination, bringing together scientists and engineers from across the globe. Supported by the open-access PIER Journals, this platform will play a key role in advancing TEMA’s mission.



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Suzhou, CHINA

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PIERS 2026 Suzhou Local Organizing Committee

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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 28–30, 2026 and 8:00–11:00 on July 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.

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 10:00-10:30 and 15:30-16:00.
- Presenters should post time slots of their presence on the panel and be present for interactive questions at the given time.

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- Nanjing University
- The Electromagnetics Academy at Zhejiang University

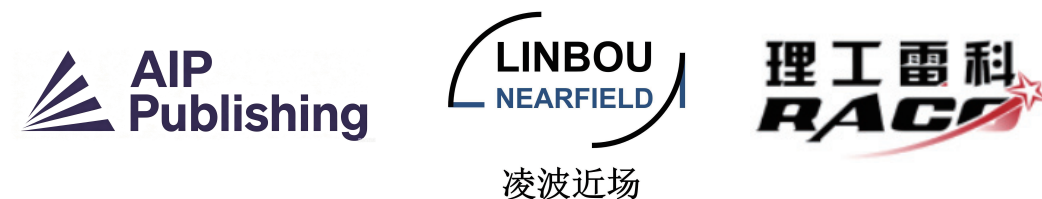
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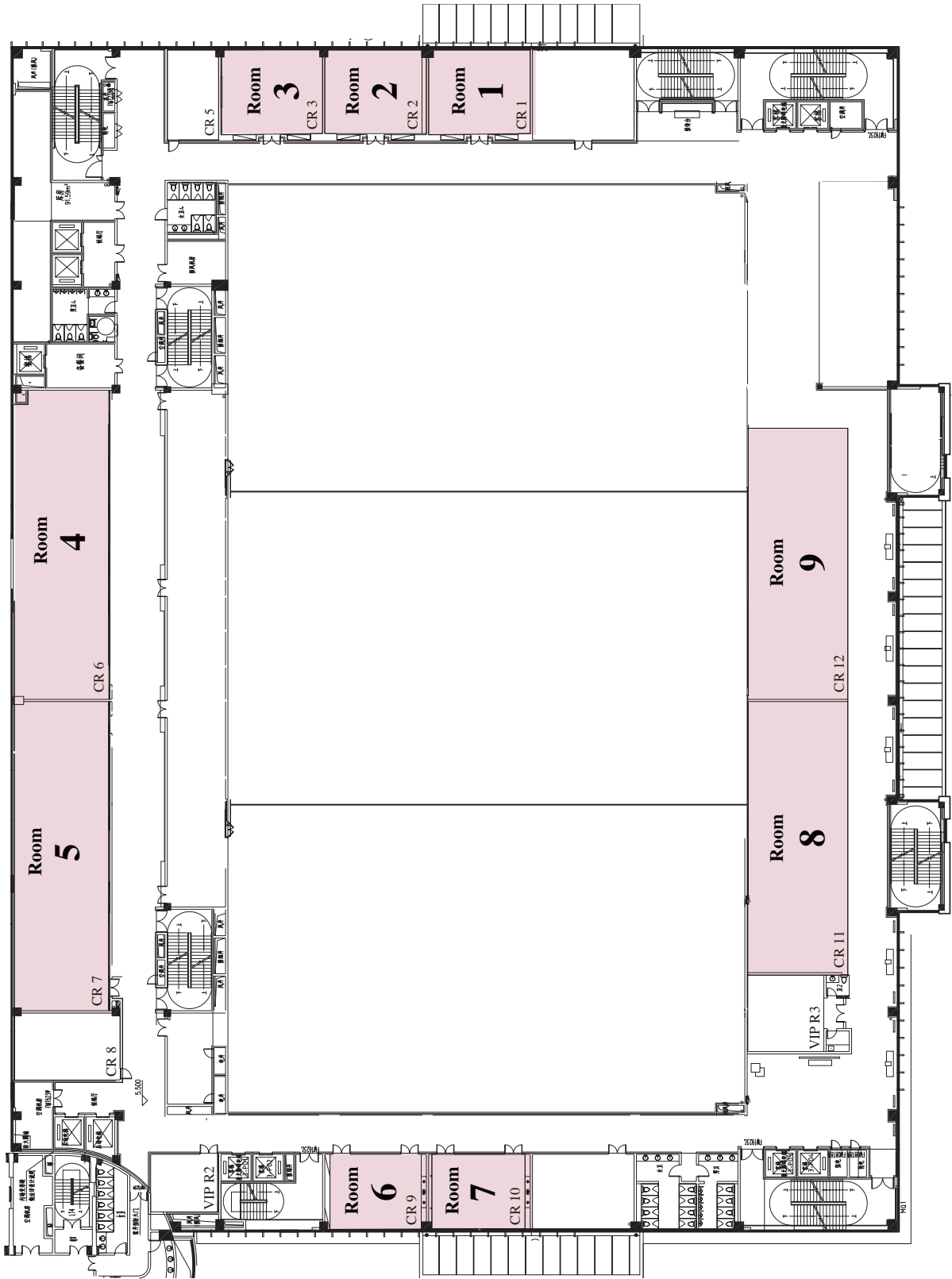


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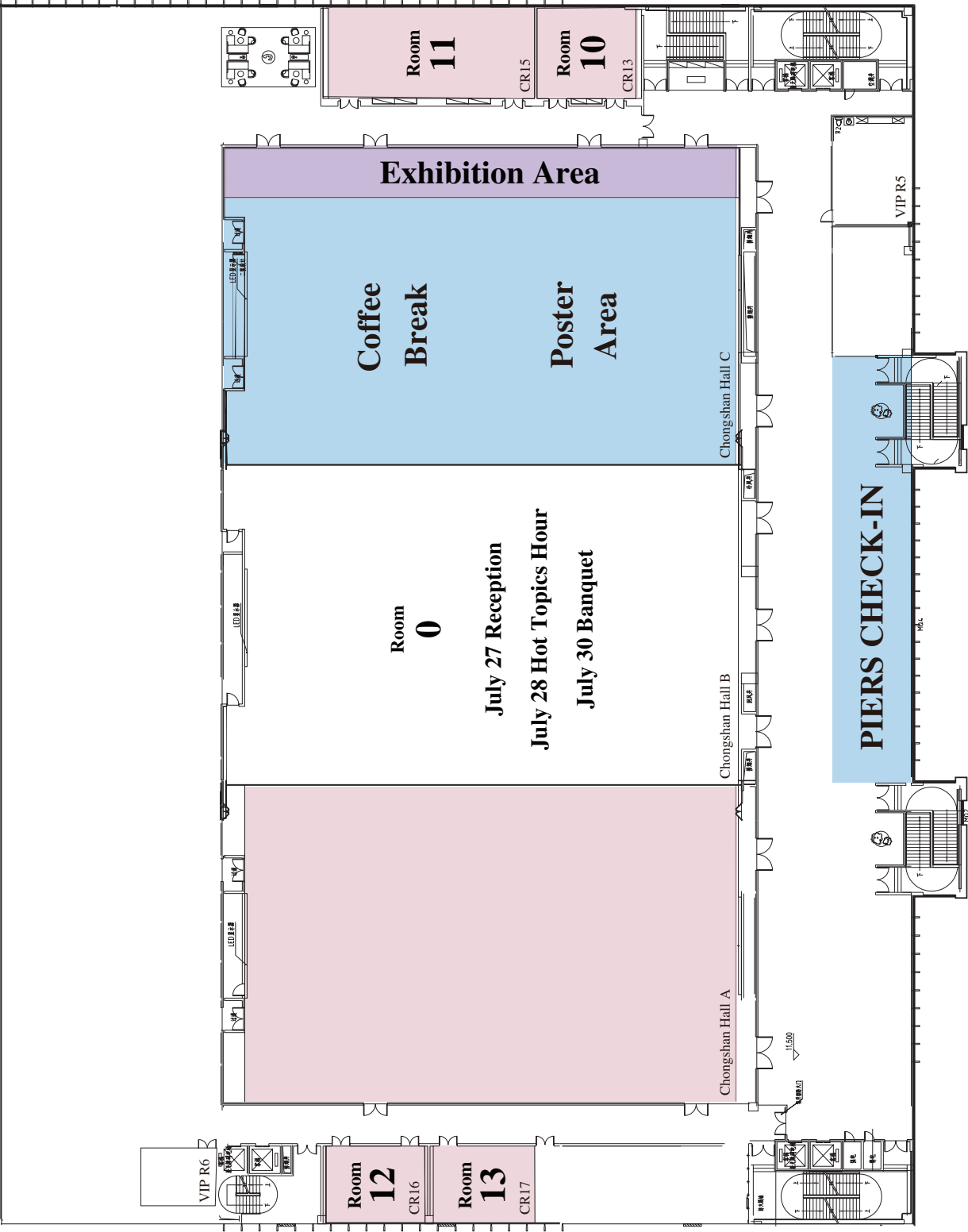
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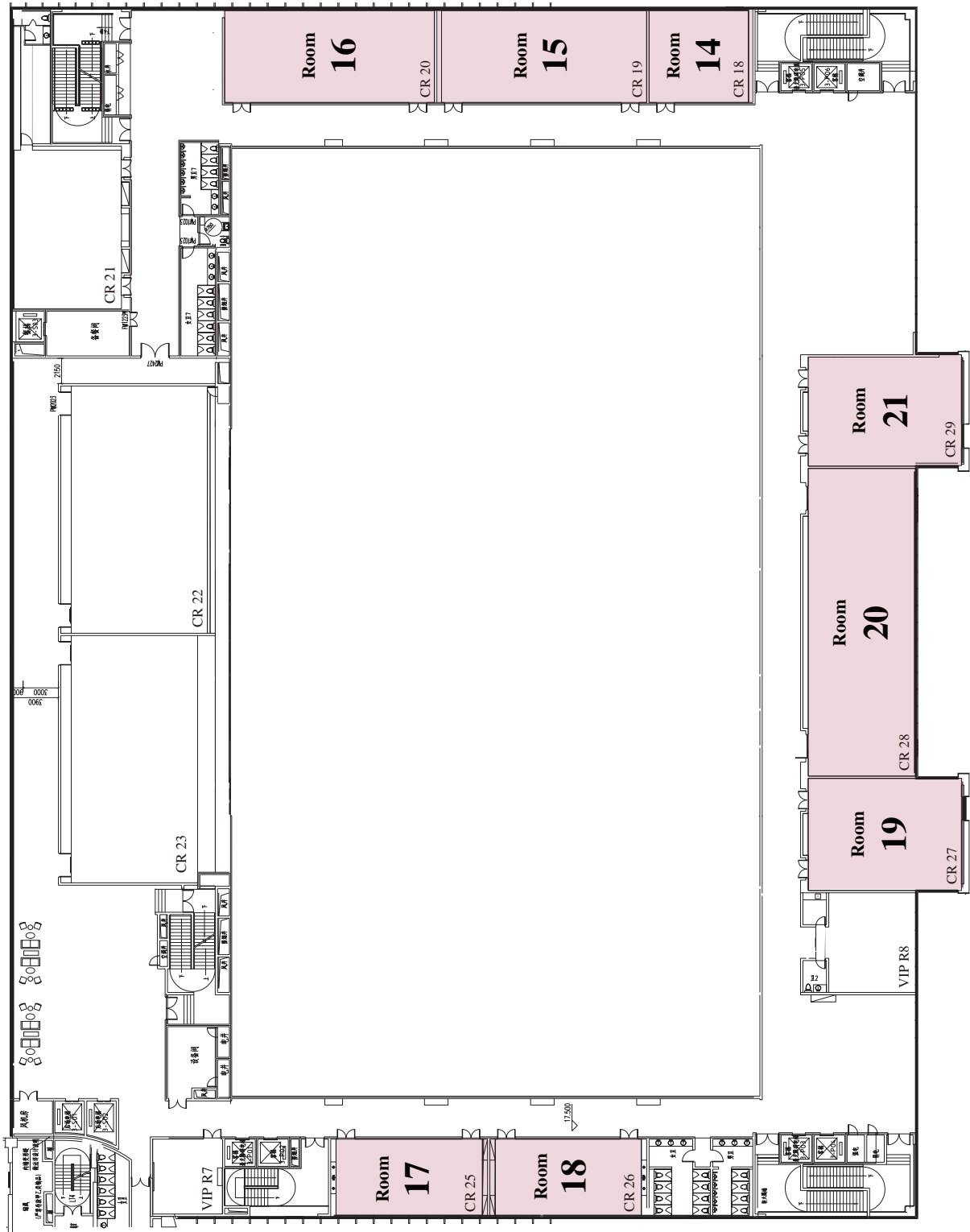
MAP OF CONFERENCE SITE



Suzhou Longemont Conference Center – 2nd Floor



Suzhou Longemont Conference Center – 3rd Floor



Suzhou Longemont Conference Center – 4th Floor

HOT TOPICS IN PHOTONICS AND ELECTROMAGNETICS

Tuesday PM, July 28, 2026

Room 0 - Chongshan Hall B

Organized by Sailing He



16:30 Welcome Address by General Chair on behalf of Nanjing University
Kun-Shan Chen (Nanjing University);



16:35 Annoucement of 2026 PIER Awards
Leung Tsang (President of The Electromagnetics Academy);



16:45 Metamaterials in Time --- The New Frontier
John B. Pendry (Imperial College London);



17:00 Annoucement of 2026 New Fellow of The Electromagnetics Academy
Leung Tsang (President of The Electromagnetics Academy);



17:05 Maxwell's Equations for a Mechano-driven Media System Theory Fundamental Theory
and Experimental Verifications
Zhong Lin Wang (Beijing Institue of Nanoenergy and Nanosystems,
Chinese Academy of Sciences);



17:20 Topological Vector Acoustics
Ming-Hui Lu (Nanjing University);



17:30 Sustainable Manufacturing of Optical Metasurfaces with Engineered Optical Materials
Junsuk Rho (Pohang University of Science and Technology (POSTECH));



17:40 The Case for Timetronics
Nikolay I. Zheludev (University of Southampton)



17:50 Photoacoustic, Light-speed, and Quantum Imaging/Physics
Lihong Wang (California Institute of Technology);



18:00 AI: The Missing Link for Translational Biophotonics
Juergen Popp (Friedrich Schiller University);



18:10 AI in Review Writing: What Is Allowed, What Is Not --- A Nature Reviews Electrical
Engineering Perspective
Rachel Pei Chin Won (Nature Reviews Electrical Engineering)



18:20 A Post-lithium-niobate Era for Nonlinear Optics
Cheng-Wei Qiu (National University of Singapore)

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

Session 0P1 Bioinspired Optics & Photonics

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

13:00 Structural Colors with Scalable Disordered Plasmonics
Invited
Hyeon-Ho Jeong (Gwangju Institute of Science & Technology);

13:20 Active Structural Colors Including White and Black
Invited with Electrochemical Redox Reactions
Jerome Kartham Hyun (Ewha Womans University);

13:40 Color Gamut Expansion through Wavelength-selective
Invited Polarization Modulation in Chiral Liquid Crystals
Hyewon Park (Korea Advanced Institute of Science and Technology); Dong Ki Yoon (Korea Advanced Institute of Science and Technology);

14:00 Planar Optical Nanocavities for Engineered Structural
Invited Color
Qiaoqiang Gan (King Abdullah University of Science and Technology (KAUST));

14:20 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);

14:35 Biomimetic Mini-cameras Based on Artificial Compound
Invited Eyes
Xuming Zhang (The Hong Kong Polytechnic University);

15:30 **Coffee Break**

16:00 In-sensor Computing for AI-native Robotic Vision
Invited
Changsoon Choi (School of Electronic and Electrical Engineering);

16:20 Computational Bio-inspired Vision: Integrating Neuro-morphic Compound Eyes with Single-pixel Imaging for High-speed Motion Analysis
Mengchao Ma (Hefei University of Technology);

16:40 Inspiration from Coloration and Cooling in Nature
Invited
Young Min Song (Korea Advanced Institute of Science & Technology (KAIST));

17:00 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));

17:15 Design of Dual-sided Radiative Cooling Glass for Enclosure Cooling Through Vertically-installed Windows
Hyunky Kwak (Korea Advanced Institute of Science and Technology (KAIST)); Young Min Song (Korea Advanced Institute of Science & Technology (KAIST));

Session 0P2a Engineering Acoustic Resonances for Advanced Wave Control

Monday PM, July 27, 2026

Room 2 - CR 2

Organized by Xianchen Xu, Sichao Qu

Chaired by Xianchen Xu, Sichao Qu

13:00 Causality-locked Optimal Scattering and Emission in
Invited Acoustic Metamaterials
Zixun Ge (The University of Hong Kong); Sichao Qu (The University of Hong Kong); Nicholas Xuanlai Fang (The University of Hong Kong);

13:20 Broadband and Wide-angle Focusing via an Ultracompact Reconfigurable Acoustic Grating
Invited
Liangfen Du (The Hong Kong Polytechnic University); Zheng Fan (Nanyang Technological University);

13:40 Coupled-mode Surface Acoustic Wave (X-SAW) Resonators and RF Filters for 6G cmWave and Wi-Fi 8 Communications
Invited
Zichu Zhang (University of Science and Technology of China); Zhongbin Dai (University of Science and Technology of China); Chengjie Zuo (University of Science and Technology of China);

- 14:00 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*);
- 14:15 Metamaterial Acoustic Impedance Tube for Low-frequency Underwater Acoustic Testing
Invited Nan Gao (*Zhejiang University*);
- 14:35 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)*);
- 14:55 Observation of Disorder-induced Boundary Localization
Bing-Bing Wang (*Jiangsu University*); Zheyu Cheng (*Nanyang Technological University*); Hong-Yu Zou (*Jiangsu University*); Yong Ge (*Jiangsu University*); Ke-Qi Zhao (*Jiangsu University*); Qiao-Rui Si (*Jiangsu University*); Shou-Qi Yuan (*Jiangsu University*); Hong-Xiang Sun (*Jiangsu University*); Haoran Xue (*The Chinese University of Hong Kong*); Baile Zhang (*Nanyang Technological University*);

15:30 Coffee Break

Session 0P2b Silicon-based Hybrid and Heterogeneous Integrated Light Source

Monday PM, July 27, 2026

Room 2 - CR 2

Organized by Yue-De Yang, Chaoyuan Jin

Chaired by Yue-De Yang

- 16:00 Slab-coupled Optical Waveguide DFB Lasers for Hybrid Photonic Integration
Invited 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*); Qiuhua 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*);

- 16:20 Heterogeneously Integrated Semiconductor Optical Amplifier on 220 nm-silicon-on-insulator Platform: A Demonstration and Potential Applications
Invited Yu Zhang (*Huazhong University of Science and Technology*);
- 16:40 Silicon-based Optical Matrix Integration for High Radix Network Interconnections
Invited Chenhui Li (*Zhejiang University*);
- 17:00 Hybrid-Integrated Ultra-Narrow Linewidth Laser Based on High-Q Silicon Nitride Double-Archimedean Spiral Resonator
Invited Jin-Long Xiao (*Institute of Semiconductors, Chinese Academy of Sciences*);
- 17:20 Multicolor Soliton Microcombs in an Integrated Kerr Microresonator
Invited Haizhong Weng (*Trinity College Dublin*);
- 17:40 The Generation of Microcombs in the High-Q Lithium Niobate Microresonators
Invited Shuai Wan (*University of Science and Technology of China*); Pi-Yu Wang (*University of Science and Technology 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*);
- 18:00 Chip-integrated Silicon-based Soliton Optical Frequency Comb with High Conversion Efficiency
Invited Yong-Zhen Huang (*Institute of Semiconductors, Chinese Academy of Sciences*); Wen-Qi Shi (*Institute of Semiconductors, Chinese Academy of Sciences*); Yue-De Yang (*Institute of Semiconductors, Chinese Academy of Sciences*);
- 18:20 Exploration of Hybrid Integrated Silicon-based Active III-V Devices
Daibao Hou (*Zhejiang University*); Shuning Ding (*Zhejiang University*); Yuntian Yao (*Zhejiang University*); Qiyu Wu (*Zhejiang University*); Yonghong Hu (*Zhejiang Laychip Optoelectronics Technology Co., Ltd*); Wei Pan (*Zhejiang Laychip Optoelectronics Technology Co., Ltd*); Chao Huang (*Zhejiang Laychip Optoelectronics Technology Co., Ltd*); Huihui Zhu (*Zhejiang University*); Chenhui Li (*Zhejiang University*); Chaoyuan Jin (*Zhejiang University*);

Session 0P3a Integrated Photonic Devices for Optical Signal Processing and Computing

Monday PM, July 27, 2026

Room 3 - CR 3

Organized by Ciyuan Qiu

Chaired by Ciyuan Qiu

- 13:00 Mode-locked Lasers with Hybrid Integration of III-V Semiconductor Gain and Lithium Niobate Modulator
Invited Kan Wu (*Shanghai Jiao Tong University*);

- 13:20 Multilayer Perceptron Neural Network for the On-demand Inverse Design of Photonic MRR Array Processing 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);
- 13:35 Monolithic SiN-enabled Silicon Photonic Receiver for Polarization-insensitive, Athermal 16×200 Gbps CWD Optical Interconnects
Yan Zhang (Zhejiang Lab); Zhuo Chen (Zhejiang Lab); Qingyang Du (Zhejiang Lab); Bigeng Chen (Zhejiang Lab); Shaoliang Yu (Zhejiang Lab);
- 13:50 Inverse-designed Lithium Niobate Photonic Devices for High-density Chip Integration
Invited *Xu Han (Hefei University of Technology); Hu Jiang (Hefei University of Technology);*
- 14:10 CMOS-compatible Integrated AlScN Electro-optic Microring Modulators
Invited *Ting Hu (Shanghai University); Tianqi Xu (Shanghai University);*
- 14:30 High Speed VCSEL for AI Scale-up Optical Interconnects
Keynote *Connie J. Chang-Hasnain (The Chinese University of Hong Kong, Shenzhen);*
- 15:00 Algorithms for Photonics Integrated Circuits: Optimization and Implementation
Invited *Enge Zhang (Beijing University of Posts and Telecommunications); Yifu Xu (Beijing University of Posts and Telecommunications); Donghao Li (Beijing University of Posts and Telecommunications); Songyang Li (Beijing University of Posts and Telecommunications); Zhengyang Li (Beijing University of Posts and Telecommunications); Kai Wang (Beijing University of Posts and Telecommunications); Lei Zhang (Beijing University of Posts and Telecommunications);*
- 15:30 **Coffee Break**
- 16:00 Deep Photonic Reservoir Computing Processor and Applications
Invited *Cheng Wang (ShanghaiTech University);*
- 16:20 Photonic In-memory Computing
Invited *Zengguang Cheng (Fudan University);*
- 16:40 A Level Set Optimization Method with Fabrication-friendly Topology
Xiao Meng (Tongji University); Wenxin Hao (Tongji University); Junhe Zhou (Tongji University);
- 16:55 Morphology-driven Optical Properties of Vertically Aligned MoS₂: 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);
- 17:10 Second-harmonic Generation Modulation of 2D Semiconductors and Their Heterostructures
Invited *Haitao Chen (National University of Defense Technology);*
- 17:30 The Interfacial Thermal Conductance of Graphene/hBN Heterojunction Devices
Invited *Fang Luo (National University of Defense Technology); Zhilong Shang (National University of Defense Technology);*
- 17:50 Feasibility Study of Using LEDs in End-side Pumping Scheme for Solid-state Lasers
Feruzha 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);
- 17:53 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);

Session 0P3b
Optoelectronic Materials and Devices

Monday PM, July 27, 2026

Room 3 - CR 3

Organized by Fang Luo

Chaired by Fang Luo

Session 0P4a
Electromagnetic Theory, Scattering, EMC

Monday PM, July 27, 2026

Room 4 - CR 6

Chaired by Xuchen Wang

- 13:00 Incompatibility between Superposition Law and Energy Conservation in the Wave Regime
Bingli Jiao (Peking University);

- 13:15 Operator Approach for Calculation of the Dyadic Green's Function
A. Arlouski (Belarussian State University); Andrey V. Novitsky (Belarusian State University);
- 13:30 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); Dingfeng Yu (Wuhan Institute of Technology); Minghu Wu (Hubei University of Technology); Yunhua Zhang (Wuchang University of Technology); Zhe Wang (Hubei University of Technology);
- 13:45 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);
- 14:00 Experimental Study on Pulse Interference in Communication 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);
- 14:15 Breaking the Rozanov Limit of Thin Absorbers Using Spatiotemporal Modulation of Surface Impedance
Kaiqi Xiao (Harbin Engineering University); Xuchen Wang (Harbin Engineering University);
- 14:30 Non-Abelian Gauge Field Optics in the Time Domain
Yucheng Lai (Zhejiang University); Yongliang Zhang (Institute of Semiconductors, Chinese Academy of Sciences); Kai Chang (Zhejiang University);
- 14:45 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);
- 15:30 **Coffee Break**

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

Monday PM, July 27, 2026

Room 4 - CR 6

Organized by Georgi Nikolov Georgiev, Mariana Nikolova Georgieva-Grosse

Chaired by Mariana Nikolova Georgieva-Grosse

- 16:00 Impedance Model of a Three-dimensional Blackbody
Invited
Yury Vladimirovich Yukhanov (Southern Federal University); Tatyana Yurievna Privalova (Southern Federal University);
- 16:20 Features of the Resonant Interaction of a Transverse-electric Wave with a Modulation Wave of a Magnetodielectric Plate in a Waveguide
Invited
Eduard A. Gevorkyan (Moscow Witte University);
- 16:40 A Theorem on the Dr. Mariana N. Georgieva's Complex $\mathbf{M}_1(\mathbf{p}, \mathbf{c}, \mathbf{n})$ Numbers
Invited
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);
- 17:00 An Infinite Wave Propagation Speed Attainable Independently of Source Functions: Part (I)
Namik Yener (Istanbul 29 Mayıs University);
- 17:15 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");
- 17:30 Synthesis of an Isotropic Structure with a Passive Complex Surface Impedance
Tatyana Yurievna Privalova (Southern Federal University);

Session 0P5a
Optical Wireless Communication

Monday PM, July 27, 2026

Room 5 - CR 7

Organized by Chao Shen, Chao Fei

Chaired by Chao Shen, Chao Fei

13:00 Development of High-efficiency AlGaIn Deep UV LEDs
Invited and Application in UV Communication

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

13:20 Experimental Characterization of a Green Laser Diode
for Visible Light Communication

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

13:35 High-fidelity Frequency Response Prediction of GaN-
Invited based Laser Diodes Directly from Epitaxial Architec-
tures Using Deep Neural Networks

Yuheng Zou (Fudan University); Bohan Xiao (Fudan University); Haolin Jia (Fudan University); Chao Shen (Fudan University);

13:55 High Speed Tricolor Laser Diodes Based White Visible
Invited Light Communication System Employing an Adaptive
QAM-OFDM Modulation

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);

14:15 Recognition of Synthesized Vector Beams with Oppo-
site 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);

14:30 Low-latency Integrated Visible Light Communication
Invited and Sensing Network for Real-time Interactive Theatrical
Storytelling

Zetao Wu (Chinese National Academy of Arts);

14:50 Cooperative State Estimation via Optical Motion Cap-
Invited ture and Free-space Optical Feedback for Embodied Nar-
ratives in Future Theater

Zetao Wu (Chinese National Academy of Arts);

15:10 Omnidirectional Optical Base Stations Enabling Under-
Invited water Wireless Optical Cellular Networks

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

15:30 **Coffee Break**

16:00 Integrating Center-based Detection and Lane-aware
Invited Transformers for Robust Trajectory Prediction in Au-
tonomous Driving

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

16:20 Real-time High-speed Underwater Optical Wireless
Invited Communication System Using a Wide-angle White-light
Laser

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);

Session 0P5b
**From RF to Optical: The Next Generation of
Wave Propagation**

Monday PM, July 27, 2026

Room 5 - CR 7

Organized by Hasan Tahir Abbas, Muhammad Zubair

Chaired by Hasan Tahir Abbas

16:30 Understanding the Role of Temporal Dynamics in
Fluorescence-detected Mid-infrared Photothermal Mi-
croscopy

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);

16:45 Ultrahigh-frequency Surface Acoustic Waves Generation
through Laser Pulse Excited Gold Nanoparticles and Its
Observation

Muhammad Usman (Nanjing University of Science and Technology); P. Yan (Nanjing University of Science and Technology); C. Sun (Nanjing University of Science and Technology); M. Li (Nanjing University of Science and Technology); Jichuan Xiong (Nanjing University of Science and Technology);

- 17:00 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));
- 17:15 Over-the-Air Calibration of 6G Phased Arrays Challenges and Potential Solutions
Fengchun Zhang (Aalborg University); Wei Fan (South-east University);
- 17:30 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));
- 17:45 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);

Session 0P6a
Advances in Biophotonics 1

Monday PM, July 27, 2026

Room 6 - CR 9

Organized by Keisuke Goda, Qiu Qiang Zhan

- 13:00 Photoacoustic and Light-speed Imaging
Keynote
Lihong Wang (California Institute of Technology);
- 13:30 AI-driven Multimodal Biophotonics for Precision Diagnostics and Digital Medicine
Jürgen Popp (Friedrich Schiller University Jena);
- 13:45 Resonance-engineered Raman Spectroscopy for High-sensitivity Biochemical Sensing
Ting-Hui Xiao (Zhengzhou University);
- 14:00 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);
- 14:15 Optical Micromanipulation: From in vitro Trapping to in vivo Actuation
Hongbao Xin (Jinan University);

- 14:30 Advanced in Non-contact Optical Coherence Elastography
Yirui Zhu (Nanchang Hangkong University); Jiulin Shi (Nanchang Hangkong University); Xingdao He (Nanchang Hangkong University);

Session 0P6b
Advances in Biophotonics 2

Monday PM, July 27, 2026

Room 6 - CR 9

Organized by Fan Wang, Xiaolan Zhong

Chaired by Fan Wang, Xiaolan Zhong

- 15:00 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);
- 15:20 Gradient Boosting Decision Trees Enable High-quality Super-resolution Microscopic Imaging Screening
Zhiping Zeng (Fuzhou University); Xiyang Ren (Fuzhou University); Xinyi Chen (Fuzhou University); Biqing Xu (Fuzhou University);
- 15:35 **Coffee Break**
- 16:00 Optogenetically Enhanced Physical Reservoir Computing with In Vitro Neural Networks
Invited
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);
- 16:20 High-fidelity Imaging of Living Brains and Eyes
Invited
Qinrong Zhang (City University of Hong Kong);
- 16:40 Ultrarapid Deep 3D Histology with Cleared Stimulated Raman Imaging and Unsupervised Learning
Invited
Zhijie Liu (Fudan University); Yingying Li (Fudan University); Lingchao Chen (Fudan University); Minbiao Ji (Fudan University); Lixue Shi (Fudan University);
- 17:00 Infrared Visualization: From Monochromatic to Full-color Upconversion
Invited
Ge Mu (Beijing Institute of Technology);
- 17:20 Stimulated Raman Histology for Label-free Cancer Diagnosis
Invited
Minbiao Ji (Fudan University);

- 17:40 3D All-optical Dissecting of Neuronal Dynamics at 100 Hz
Dongli Xu (Huazhong University of Science and Technology);

Session 0P7a

Short-Oral Presentations for Best Student Presentation Awards Competition - Part 1

Monday PM, July 27, 2026

Room 7 - CR 10

Chaired by Sailing He, Maxim V. Gorkunov, Chao-Fu Wang, Abdullah Eroglu, Sheng Sun

- 13:00 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));
- 13:03 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);
- 13:06 Electromagnetic Parasitic Extraction and Structural Self-equalization for 3D Memristor Crossbar Arrays
Jiarui Qiu (Zhejiang University); Hanzhi Ma (Zhejiang University);
- 13:09 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); Hongming Fei (Taiyuan University of Technology); Binzhao Cao (Taiyuan University of Technology);
- 13:12 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);
- 13:15 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);
- 13:18 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);
- 13:21 Tunable Optical Properties of 2DMs/SiO₂ Heterostructure with Nanoindented Metasurface
Gaoyuan Wang (Fudan University); Zihao Cai (Fudan University); Mengyuan Tang (Fudan University); Shaojuan Li (Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences); Tatyana Petrova (Institute of Chemical Engineering, Bulgarian Academy of Sciences); Hongyu Tang (Fudan University);
- 13:24 Multifunctional 2-bit VO₂-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);
- 13:27 Optical Meron Lattices Generated from Quasi-symmetry Groups
Guangfeng Wang (Shanghai Jiao Tong University); Bo Wang (Shanghai Jiao Tong University);
- 13:30 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);
- 13:33 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);

- 13:36 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);
- 13:39 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);
- 13:42 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);
- 13:45 Piezoelectrically Compensated Ta₂O₅ 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);
- 13:48 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);
- 13:51 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);
- 13:54 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);
- 13:57 Exposure Optimized Wireless Power Transfer Design: Optimal Coil Separation
Hendrick Lim (The University of Auckland); Robert Galichan (The University of Auckland); David M. Budgett (The University of Auckland); Daniel McCormick (The University of Auckland);
- 14:00 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);
- 14:03 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);
- 14:06 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);
- 14:09 An Amplitude Corrected-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); Xiangukun Zhang (National Space Science Center, Chinese Academy of Sciences);
- 14:12 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);
- 14:15 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);
- 14:18 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);

- 14:21 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);
- 14:24 Enhancing RF Magnetometry via Spin Amplification
Yufan Niu (Fudan University); Yanhong Xiao (Fudan University);
- 14:27 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);
- 14:30 Dirac-engineered Photonic Crystals for Energy-sensitive Transition Radiation at Brewster Angles
Vigen Gareyan (Alikhanyan National Laboratory);
- 14:33 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);
- 14:36 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);
- 14:39 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);
- 14:42 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); Qiuhui Chu (Laser Fusion Research Center, China Academy of Engineering Physics); Xiaojun Zhu (Soochow University);
- 14:45 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);
- 14:48 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);
- 14:51 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);
- 14:54 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);
- 14:57 Reconfigurable Liquid Crystal Physical Unclonable Function Device
Hong-Xing Wen (Xiamen University); Jinhui Chen (Xiamen University);
- 15:00 Sb₂S₃ 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);
- 15:03 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);

- 15:06 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*); Qingtao Sun (*Eastern Institute of Technology, Ningbo*); Wen Chen (*The Hong Kong Polytechnic University*); Qing Huo Liu (*Eastern Institute of Technology*);
- 15:09 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”*);
- 15:12 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 Jiao Tong University*); Tailong Xiao (*Shanghai Jiaotong University*); Guihua Zeng (*Shanghai Jiao Tong University*);
- 15:15 Terahertz Multidimensional Surface Wave Manipulation Based on Programmable Metadevices
Yiming Wang (*Nankai University*); Fei Fan (*Nankai University*);
- 15:18 **Coffee Break**
- 13:30 TRiQ-SCal: Trust-region and Quantization-aware Sparse-feedback Calibration of 2-bit Programmable Metasurfaces for Near-field Focusing
Eunice Oluwabunmi Owoola (*Shandong Agricultural University*); Yinfa Yan (*Shandong Agricultural University*);
- 13:45 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*);
- 14:00 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*);
- 14:15 Underwater Image Dehazing Based on All-optical Diffractive Neural Network
Guixi Mei (*Zhejiang University*); Min Huang (*National University of Defense Technology*); Shifeng Xiao (*Zhejiang University*); Bin Zheng (*Zhejiang University*);
- 14:30 All-metal Polarization-twisting Metasurface for Millimeter-wave Applications
Zixuan Zhang (*Shenzhen University*); Xue Ren (*Shenzhen University*);
- 14:45 A Polarization-insensitive Ultra-wideband Terahertz Absorber Based on a Symmetric VO₂ Resonant Cell
Qinkai Li (*Ningxia University*); Hongshun Liu (*North Minzu University*); Xuehong Sun (*Ningxia University*); Caiyan Jiang (*Ningxia University*);
- 15:00 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*);
- 15:15 EIRP-constrained Wi-Fi Coverage: Restricted-isotropic Benchmarking and PB-phase Synthesis
Xianglong Liu (*Jilin University*);
- 15:30 **Coffee Break**

Session 0P8a
Advances in Intelligent Metasurfaces

Monday PM, July 27, 2026
Room 8 - CR 11

Organized by Min Huang, Dashuang Liao

Chaired by Min Huang, Dashuang Liao

- 13:00 MTM-EBG Inspired Dual-band 1-bit Transmissive Metasurface
Manting Wang (*University of Electronic Science and Technology of China*);
- 13:15 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*);

Session 0P8b**Multi-functional and Programmable Electromagnetic Metasurface: Designs and Applications****Monday PM, July 27, 2026****Room 8 - CR 11**

Organized by Rui Yuan Wu, Qiubo Ye

Chaired by Rui Yuan Wu

- 16:20 A Multifunctional Four-channel Programmable Meta-surface
Invited *Liangwei Wu (Hefei University of Technology); Jingcheng Liang (Hefei University of Technology);*
- 16:40 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);
- 16:43 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);
- 16:46 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);
- 17:01 A Circularly Polarized Antenna for Millimeter-Wave Applications
Shihao Tian (Jimei University); Jing Wu (Jimei University); Jun Xiao (Jimei University); Qiubo Ye (Hohai University);
- 17:16 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);
- 17:19 Novel Multi-band Transmitarray Antennas via Slot-type Metasurfaces
Rui Yuan Wu (Hohai University); Qiubo Ye (Hohai University);

Session 0P9**Advances and Applications in Topological Acoustics 1 & 2****Monday PM, July 27, 2026****Room 9 - CR 12**Organized by Jiuyang Lu, Zhiwang Zhang, Yu-Gui Peng
Chaired by Yu-Gui Peng

- 13:00 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);
- 13:15 Protocol-driven Control of Acoustic Waves
Invited *Zeguo Chen (Hong Kong Baptist University);*
- 13:35 Realization of Topological Bound States in the Continuum in Acoustic Crystals
Invited *Zhongming Gu (Tongji University);*
- 13:55 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);*
- 14:15 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);*
- 14:35 Anomalous Collision of Exceptional Points on Nonorientable Manifolds
Invited *Qicheng Zhang (Wuhan University);*
- 14:55 Multistable Dynamics in a Nonlinearly Coupled Acoustical Cavity System
Invited *Zhaoxian Chen (Nanjing University);*
- 15:15 Orbital Hybridization Endowed Topological Insulators
Feng Gao (Soochow University);
- 15:30 **Coffee Break**
- 16:00 Defect-immune Sound Radiation in a Topologically Nontrivial Hyperbolic Metamaterial
Yang Zhang (Shenzhen Campus of Sun Yat-sen University); Li-Yang Zheng (Shenzhen Campus of Sun Yat-sen University); Johan Christensen (IMDEA Materials Institute);
- 16:15 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);
- 16:30 Three-dimensional Topological Disclination in Acoustic Crystals
Invited *Zhenxiao Zhu (Beijing Institute of Technology); Zhen Gao (Southern University of Science and Technology);*
- 16:50 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);*

17:10 Directional Sound Transport via Topological Multimode
Invited Interference in Heterostructure Sonic Crystal
Zhi-Guo Geng (Zhejiang Normal university);

17:30 Experimental Observation of Non-Hermitian Phase
Transitions Using Laser-induced Thermoacoustics
*Haixiao Zhang (Changzhou Institute of Technology);
Wei Xiong (Nanjing University); Ying Cheng (Nan-
jing University); Xiaojun Liu (Nanjing University); Jo-
han Christensen (IMDEA Materials Institute);*

17:45 Lossy Phononic Metamaterials for Valley Nonreciprocity
*Shunda Yin (Wuhan University); Qiuyan Zhou
(Wuhan University); Yuxiang Xi (Wuhan Univer-
sity); Weiyin Deng (Wuhan University); Wei Chen
(Nanjing University); Jiuyang Lu (Wuhan University);
Manzhu Ke (Wuhan University); Zhengyou Liu (Wuhan
University);*

18:00 Two Distinct Anomalous Localization Effects in Non-
Hermitian Acoustic Lattices
*Chengwu Ji (Jiangnan University); Bolun Hu (Jiangnan
University);*

18:15 Acoustic Bilayer Moiré Metasurfaces

Invited
Tianzhi Yang (Northeastern University);

Session 0P10a

Singular Meta-optics: Merging Metasurfaces with Multidimensional Optical Singularities

Monday PM, July 27, 2026

Room 10 - CR 13

Organized by Xuezhi Zheng, Jie Yang

Chaired by Xuezhi Zheng, Jie Yang

13:00 Programmable Skyrmions with Ultrafast Control for
Communication, Sensing, and Harmonic Modulation
*Long Chen (Southeast University); Xinyu Li (Southeast
University); Yijie Shen (Nanyang Technological Univer-
sity); Qian Ma (Southeast University); Jian Wei You
(Southeast University);*

13:15 Angular Momenta in Fields from a Rotational Mechan-
ical Antenna and Further
*Zhikang Xiong (Hubei University); Yangjie Liu (Hubei
University); M. Wen (Hubei University); Bin Zhou
(Hubei University);*

13:30 Generating Microwave Bimerons with Propagation-
variable Topologies by Single Metasurface
*Jingzian Zhang (Air Force Engineering University);
Jie Yang (Airforce Engineering University); Xinmin Fu
(Air Force Engineering University); Jiafu Wang (Air
Force Engineering University);*

13:45 Optical Topological Quasiparticles in Orbitals of Plas-
monic Systems
Jie Yang (Airforce Engineering University);

14:00 Non-Hermitian Control of Confined Optical Skyrmions
in Microcavities Formed by Photonic Spin-orbit Cou-
pling

*Xiaoxuan Luo (Xi'an Jiaotong University); Yin Cai
(Xi'an Jiaotong University); Xin Yue (Xi'an Jiaotong
University); Wei Lin (Xi'an Jiaotong University); Jing-
ping Zhu (Xi'an Jiaotong University); Yanpeng Zhang
(Xi'an Jiaotong University); Feng Li (Xi'an Jiaotong
University);*

14:15 Orbital Angular Momentum-based Metasurfaces for
Scattering Manipulation

*Qi Zheng (Shanghai University); Zhenyu Pan (Shang-
hai University); Junyu Ren (Northwestern Polytechnical
University); Xiaoyan Pang (Northwestern Polytechnical
University); Xiaotong Li (Pohang University of Science
and Technology (POSTECH)); Xiaobei Zhang (Shanghai
University);*

14:30 Compactly Integrated Metalens for Dual-mode Wave-
front Manipulation

*Xiaoyan Pang (Northwestern Polytechnical University);
Mingze Hu (Northwestern Polytechnical University);
Junyu Ren (Northwestern Polytechnical University);
Qi Zheng (Shanghai University);*

14:45 Generation and Applications of Vortex Beams with Mul-
tiple Physical Degrees of Freedom

*Zixuan Zhang (Peking University); Xuefan Yin (Peking
University); Nianyuan Lv (Peking University); Ye Chen
(Peking University); Chao Peng (Peking University);*

15:30 Coffee Break

Session 0P10b

Flexible Metamaterials for Extraordinary Wave Manipulation

Monday PM, July 27, 2026

Room 10 - CR 13

Organized by Zuojia Wang, Liqiao Jing

Chaired by Liqiao Jing, Zuojia Wang

16:00 Cu/Mn-doped NiZn Ferrite Composite Coding Metasur-
face for Broadband P-band Absorption and RCS Reduc-
tion

*Chuanbao Liu (University of Science and Technology);
Xingwen Tang (University of Science and Technology);*

16:15 Programming Electromagnetic Space with Cooperative
Metasurface Clusters

Min Li (Anhui Agricultural University);

16:30 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);*

- 16:45 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);
- 17:00 Non-volatile Wavefront Manipulation via Self-locking Origami Mechanical Bits
Ding Zhang (Zhejiang University); Liqiao Jing (Zhejiang University); Hongsheng Chen (Zhejiang University); Zuoqia Wang (Zhejiang University);
- 17:15 Polarization and Incidence Angle Detection Based on Spoof Surface Plasmons
Yi Ren (Southeast University); Jingjing Zhang (Southeast University);
- 17:30 A Bendable Full-space Beam-scanning SSPP Leaky-wave Antenna for Conformal Wireless Links
Jiaxuan Wei (Southeast University); Weihan Li (University of Macau); Shizhao Gao (Southeast University); Wenxuan Tang (Southeast University);
- 17:33 A Gain Enhanced and High Efficiency Antenna-in-package Based on High-refractive-index Metasurface
Zhiwei Lin (Shenzhen University); Xue Ren (Shenzhen University);
- 14:40 Acoustic/Elastic Willis Media and Dynamic Homogenization
Invited Gengkai Hu (Beijing Institute of Technology);
- 15:00 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));
- 15:20 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);
- 15:40 **Coffee Break**
- 16:00 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);
- 16:20 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);
- 16:40 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);
- 16:55 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);
- 17:10 Temporal 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);
- 17:25 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);

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

- 13:00 Property Customization by Digital and Physical Intelligence for Mechanical Metamaterials
Invited Yuli Chen (Beihang University);
- 13:20 Topologically Protected Soft Modes in Isostatic Mechanical Metamaterials
Invited Di Zhou (Beijing Institute of Technology);
- 13:40 Flexible Network Materials and Their Applications in Bio-integrated Devices
Invited Yihui Zhang (Tsinghua University);
- 14:00 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);
- 14:20 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);

- 17:40 Experimental Realization of Special-unitary Operations in Classical Mechanics by Non-adiabatic Evolutions
Congwei Lu (Hong Kong Baptist University); Xu-long Wang (Hong Kong Baptist University); Guan-cong Ma (Baptist University of Hongkong);
- 17:55 Anderson Transition at Complex Energies in One-dimensional Parity-Time-Symmetric Disordered Systems
Invited
Wei Wang (Harbin Institute of Technology); Xu-long Wang (Hong Kong Baptist University); Guan-cong Ma (Hong Kong Baptist University);
- 18:15 Particle Manipulation by Topological Structured Water Waves
Bo Wang (Henan University);

Session 0P12a

Bio-Electromagnetic, Biomedical Imaging and Therapy

Monday PM, July 27, 2026

Room 12 - CR 16

Chaired by Dezhi Wang

- 13:00 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);
- 13:15 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);
- 13:30 Low Frequency Electromagnetic Energy for Breast Cancer Detection
Omar M. Ramahi (University of Waterloo); M. Hernandez (University of Waterloo);
- 13:45 Microwave Induced Thermoacoustic Communication from the Air to Underwater: Theoretical and Multi-physics 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);

- 14:00 Noninvasive Modulation of Depressive-like Behaviors in Rats Using Ultrafast Electromagnetic Pulses Generated by Frequency-modulated 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);
- 14:15 Research on Near-field Focusing Lens in Ka-band Based on Impedance Matching
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);
- 14:30 Simulation Study on Noninvasive Suppression of Epileptiform Discharges via High-intensity Electric Fields Induced by Ultrafast Electromagnetic Pulses
Qi Jiang (University of Electronic Science and Technology of China); Zhiyuan Zhang (University of Electronic Science and Technology of China); Muran Li (University of Electronic Science and Technology of China); Li Yang (University of Electronic Science and Technology of China); Wenfei Yu (University of Electronic Science and Technology of China); Gan Zhang (University of Electronic Science and Technology of China); Yan-ling Li (University of Electronic Science and Technology of China); Guo Liu (University of Electronic Science and Technology of China);
- 14:45 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);
- 15:00 Study of Spatial Field Distribution and Conversion Efficiency in Self-mixing Multiferroic Antennas for Fully Passive Bio-sensing
Qiyuan Lu (Beihang University); Sijia Fu (School of Electric and information engineering, Beihang University); Lingnan Song (Beihang University);
- 15:30 **Coffee Break**

Session 0P12b

Convergent Biophotonics and Bio-Interfacing Technologies

Monday PM, July 27, 2026

Room 12 - CR 16

Organized by Lei Gao, Jichuan Xiong

Chaired by Jichuan Xiong

- 16:00 Amplitude-modulated Broadband Metasurfaces for Next-generation Bio-imaging: Toward Adaptive and Intelligent Optical Platforms
Nasir Mahmood (Suzhou City University);
- 16:15 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);
- 16:30 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);
- 16:45 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);
- 17:00 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);
- 17:15 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));
- 17:30 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);
- 17:45 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));

Session 0P13
Quantum Information Physics, Materials, and Devices

Monday PM, July 27, 2026

Room 13 - CR 17

Organized by Deyi Fu, Yaping Wu

Chaired by Deyi Fu, Yaping Wu

- 13:00 Entanglement in a Molecular Lieb-lattice Quantum Computing Circuit: A Tensor Network Study
Invited *Wei Wu (University College London);*
- 13:20 Vdws Material Fe_3GeTe_2 Based Tunnelling Magnetoresistance and Spin Orbit Torque Switch
Invited *Linjun Li (Zhejiang University);*
- 13:40 Nonvolatile Magnetotransport Effects in Two-dimensional Antiferromagnets
Invited *Ding-Fu Shao (Hefei Institutes of Physical Science, Chinese Academy of Sciences);*
- 14:00 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);*
- 14:20 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);*
- 14:40 Electron Microscopy for Low-dimensional Quantum Materials and Devices
Fuchen Hou ();
- 14:55 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); Liangying 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);

15:10 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);

15:30 Coffee Break

16:00 Growth of 2D Atomic Crystals on Liquid Metals
 Invited *Dechao Geng (Tianjin University); Qing Zhang (Tianjin University); Wenping Hu (Tianjin University);*

16:20 Tunable Infrared Light-emitting Devices Based on 2D Semiconductors
 Invited *Junyong Wang (Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences);*

16:40 Giant Nonlinear Hall Effect in Isospin Symmetry Broken Bilayer Graphene
 Invited *Hao Chen (Nanjing University); Kian Ping Loh (National University of Singapore);*

17:00 Narrow-linewidth Laser Diodes Operating in the Visible
Feifan Xu (Nanjing University); Zhe Zhuang (Nanjing University); Rong Zhang (Nanjing University); Bin Liu (Nanjing University);

17:15 Cavity QED with High-impedance Metamaterials: Excitonic Insulator, Non-fermi Liquid and Confinement
Yuxuan Guo (University of Tokyo); Yuto Ashida (The University of Tokyo);

17:30 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);

17:45 On-device Control of Superconductivity-enabled Magnetism in NbSe₂
Tingyu Qu (National University of Singapore); Barbaros Oezylmaz (National University of Singapore);

18:00 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);

Session 0P14

Advanced High Power Fiber Laser Technology

Monday PM, July 27, 2026

Room 14 - CR 18

Organized by Rumao Tao, Xiaolin Wang

Chaired by Rumao Tao, Xiaolin Wang

13:00 Investigation on Large Mode Area Fiber Designs for Transverse Mode Instability Suppression
 Invited *Seongwoo Yoo (Nanyang Technological University);*

13:20 Efficient TMI Suppression Based on High-order Modes Filter Using Photonic Bandgap Fiber
 Invited

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);

13:40 Research on High-power Narrow-linewidth Fiber Lasers
 Invited *Qirong Xiao (Tsinghua University);*

14:00 LD-pumped High Average Power High Beam Quality Monolithic Fiber Lasers and Its Long Distance Propagations in Hollow Core Fiber
 Invited *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);*

14:20 Reinforcement Learning Control of Fiber Mode-locked Lasers under Environmental Fluctuations and Multistable Mode of Operations
 Invited *Alexey Yu. Kokhanovskiy (ITMO University); Kirill V. Serebrennikov (Novosibirsk State University); Sergey Chirkov (Novosibirsk State University); Evgeny Kuprikov (Novosibirsk State University); Denis S. Kharenko (Institute of Automation and Electrometry, SB, RAS);*

14:40 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*); Qiuhui 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*);

15:00 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*);

15:20 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*);

15:40 **Coffee Break**

16:00 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*);

16:20 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*);

16:40 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*);

17:00 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*);

17:20 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 Electrometry, SB, RAS*); Zhibzema E. Munkueva (*Institute of Automation and Electrometry of the SB RAS*); Alexandr V. Dostovalov (*Institute of Automation and Electrometry SB RAS*);

- 17:35 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 RAS); 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 E. Likhachev (The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center);

- 17:50 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);

- 18:05 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);

- 18:20 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);

Session 0P15a
Chiral and Spin Optoelectronic Devices

Monday PM, July 27, 2026

Room 15 - CR 19

Organized by Taotao Zhuang

Chaired by Taotao Zhuang

- 13:00 Harnessing Chiral Supramolecular Self-assembly from
KeynoteStar-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);

- 13:30 Chiral Perovskites: From Fundamentals to Opto-
Invited spintronics
Haipeng Lu (The Hong Kong University of Science and Technology);

- 13:50 Regulation Strategies for Chiral Nanosystems

Invited
Xiaoqing Gao (Wenzhou Institute, University of Chinese Academy of Sciences);

- 14:10 Discrete Chiral Plasmonic Nanoparticles with Strong
Invited Optical Activities
Bing Ni (Beijing Normal University);

- 14:30 Highly Efficient Lead-free Perovskite for Luminescent
Invited Solar Concentrators
Xiyan Li (Nankai University);

- 15:30 **Coffee Break**

- 16:00 High-precision Synthesis and Excited-state Control of
Invited One-dimensional Nanocrystals
Yi Li (Hefei University of Technology);

- 16:20 Structured Photon Emission from Geometry Frustrated
Invited Lattice
Jun Lu (National University of Singapore);

- 16:40 Engineering Transverse Optical Spin and Chirality in Subwavelength Grating Waveguides
Nikita G. Iukhtanov (ITMO University); Albert A. Seredin (ITMO University); Roman S. Savelev (ITMO University);

- 16:55 Circularly Polarized OLEDs from Chiral Plasmonic Nanoparticle-molecule Hybrids
Jiapeng Zheng (University of Shanghai for Science and Technology);

Session 0P16
Ultrafast and Nonlinear Nanophotonics 1

Monday PM, July 27, 2026

Room 16 - CR 20

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

Chaired by Kirill Koshelev, Mihail I. Petrov

- 13:00 Ultrafast Quantum and Classical Nonlinear Nanophotonic Circuits
Keynote
Alireza Marandi (California Institute of Technology);
- 13:30 Thin-film Lithium Niobate Waveguides for Mode-Phase-Matching Based Nonlinear Photonics
Invited
Lei Wang (Shandong University); Feng Chen (Shandong University);
- 13:50 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);
- 14:05 Towards an Electromagnetically Driven Panacea Platform
Invited
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);
- 14:25 Analyzing the Purcell Effect on Resonant Metasurfaces
Joshua T. Y. Tse (Osaka Metropolitan University); Taisuke Enomoto (Kyoto University); Shunsuke Murai (Osaka Metropolitan University); Katsuhisa Tanaka (Kyoto University);
- 14:40 Nonreciprocal Nanophotonics
Invited
Sergey S. Kruk (Tampere University);
- 15:00 Nonlinear Electrodynamics of Ultrafast Laser Structuring: From Surface Plasmon Instabilities to Bulk Thermoelectric 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);
- 15:15 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);
- 15:30 **Coffee Break**
- 16:00 Employing Frequency-mixing in Metasurfaces for Nonlinear Imaging
Invited
Mohsen Rahmani (Nottingham Trent University);
- 16:20 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);
- 16:35 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);
- 16:55 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");
- 17:10 Erbium Doped Photonic Integrated Circuits: From Amplifiers to Femtosecond Lasers On Chip
Invited
Xinru Ji (EPFL); Tobias J. Kippenberg (Swiss Federal Institute of Technology Lausanne (EPFL));
- 17:30 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);
- 17:50 Nonlinear Nanophotonics Based on Plasmonic Designs
Invited
Shunping Zhang (Wuhan University);
- 18:10 Stimulated Cooling in Non-equilibrium Bose-Einstein Condensate
Invited
Ka Kit Kelvin Ho (Aalto University); Vladislav Yu. Shishkov (Aalto University); Mohammad Amini (Aalto University); Leonie Teresa Wrathall (Aalto University); Evgeny Mamonov (Aalto University); Darius Urbonas (IBM Research Europe — Zurich); Ioannis Georgakilas (Paul Scherrer Institut); Tobias Herkenrath (Bergische Universität); Michael Forster (Bergische Universität); Ullrich Scherf (Bergische Universität); Tapio Niemi (Tampere University of Technology); Paivi Torma (Aalto University); Anton V. Zasedatelev (Aalto University);

Session 0P17**Metasurface Polarization and Diffraction Optics****1****Monday PM, July 27, 2026****Room 17 - CR 25**

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

Chaired by Zi-Lan Deng

- 13:00 Reconfigurable Terahertz Metalenses: Paving the Way
Invited for 6G and Beyond
Jingcheng Zhang (Northwestern Polytechnical University);
- 13:20 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);
- 13:35 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);
- 13:50 Observation of Strong Spin-orbit Couplings in a Plasmonic Spin-twistronics Topological Lattices
Invited
Peng Shi (Shenzhen University);
- 14:10 Wireless Exceptional-point Sensors Enhanced by Noise
Invited
Zhipeng Li (University of Science and Technology of China);
- 14:30 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);
- 14:50 Narrowband Geometric-phase and Laser Wavefront Modulation in Resonant Metasurfaces
Invited
Yixuan Zeng (Peng Cheng Laboratory);
- 15:10 Research on Multifunctional Metasurfaces Based on Polarization Multiplexing
Invited
Juan Deng (Zhejiang University of Technology);
- 15:30 **Coffee Break**
- 16:00 Nanograting-enhanced Light Modulation in Nonlinear Crystal Platforms
Invited
Lei Zhang (Xi'an Jiaotong University); Yaping Hou (Xi'an Jiaotong University);
- 16:20 Structured Light Field Manipulation and Application Using High-numerical-aperture Metasurfaces
Invited
Guanghui Yuan (University of Science and Technology of China);

- 16:40 Polarization-sensitive Dynamic Phase Gradient Synthesis with Moiré Metasurface
Zhenshuo Chen (Hefei University of Technology); Bingyi Liu (Hefei University of Technology);
- 16:55 Enhanced Photonic Spin Hall Effect from Slabs and Invited Nanoparticles
Dongliang Gao (Soochow University);
- 17:15 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);
- 17:35 A 0.18 Cubic Centimeter 3D Meta-holographic Zoom Invited Micro-projector
Rui-Yi Zhao (Beihang University); Qian Huang (Beihang University); Di Wang (Beihang University);

Session 0P18a**Optical Integrated Sensors for Bio Medical and Industrial Applications****Monday PM, July 27, 2026****Room 18 - CR 26**

Organized by Giovanni Breglio, Andrea Cusano

Chaired by Giovanni Breglio, Andrea Cusano

- 13:00 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);
- 13:15 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);

- 13:30 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 Srl)*);
- 13:50 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*);
- 14:05 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*);
- 14:20 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*);
- 14:35 Optical Fiber Grating-based Sensors for Environmental Monitoring in Radiation-intensive Environments
Gaia Maria Berruti (*University of Sannio*); Lorenzo Scherino (*University of Sannio*); Patrizio Vaiano (*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*);
- 14:50 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*);
- 15:05 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*);
- 15:20 Prototype-to-chip Design of a Silicon-photonic Fiber-Invited optic Gyroscope
Teresa Natale (*Polytechnic University of Bari*);
- 15:40 **Coffee Break**
- 16:00 Advanced SERS Platforms Based on Nanopillar Cluster Arrays
Mohammed Janneh (*University of Sannio*); Concetta Esposito (*Centro Regionale Information Communication Technology (CeRICT Srl)*); 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 Srl)*); Giovanni Breglio (*University of Naples Federico II*); Andrea Cusano (*Centro Regionale Information Communication Technology (CeRICT Srl)*); Marco Pisco (*University of Sannio*);

Session 0P18b**Functional Micro- and Nanoscale Materials for Optical Sensing and Imaging****Monday PM, July 27, 2026****Room 18 - CR 26**

Organized by Pier Paolo Pompa, Martin S. Ashurov

Chaired by Martin S. Ashurov

- 16:20 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);
- 16:35 Angular Tuning of Hybrid Photonic-plasmonic Nanostructures for Optimized SERS
Wei Lin (Zhejiang University); Martin S. Ashurov (Westlake University); Emmanouil G. Mavrotsoupakis (Westlake University); Weicheng Cui (Zhejiang Engineering Research Center of Micro/Nano-Photonic/Electronic System Integration); Pavlos G. Savvidis (Westlake University);
- 16:50 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);
- 17:05 Bioinspired Nanobiosensors for Portable and Wearable
Invited Diagnostics
Elisa Michellini (University of Bologna);
- 17:25 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);
- 17:40 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);
- 18:00 Detect & Destroy: A Singular Multilayered Platform for
Invited the Capture, Identification, and Degradation of Emerging Pollutants
Paola Lova (University of Genova);

- 18:20 Light-matter Strong Coupling in In-situ Microchannel Perovskite Microcavities
Qunqiu Wang (Westlake University); Zhen Cui (Westlake University); Pavlos G. Savvidis (Westlake University);

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

- 13:00 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);
- 13:20 Cavity-tunable Topological Phases and Exceptional
Invited Points in Photonic Crystals
Yan Meng (Dongguan University of 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);
- 13:40 Finite-barrier Bound States and Flat Bands Enabled by
Invited p-orbitals
Meng Xiao (Wuhan University);
- 14:00 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);
- 14:15 Fragility of Unidirectional Transport in Weakly Disordered Photonic Chern Insulators
Invited
Jun Chen (Shanxi University);
- 14:35 Geometry-induced Exceptional Points Revealed by Experimental Reconstruction of Non-Hermitian Band Structures
Invited
Kun Ding (Fudan University);
- 14:55 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);

15:10 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);*

15:30 **Coffee Break**

16:00 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);

16:15 Decaying and Gaining Topological Surface States in Two-dimensional Non-Hermitian Gapless Systems with Zero Chern Number

Invited *Jing Hu (Shanghai University);*

16:35 Topology-enforced Fractional Charge

Invited *Baile Zhang (Nanyang Technological University);*

16:55 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);*

17:15 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);*

17:35 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);

17:50 Jones-matrix Metasurface for Topological Light Generation

Invited *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);*

18:10 Shaping and Controlling Nonlinearities in Complex Multimode Systems

Yu Di (University of Southampton); Lin Xu (University of Southampton); Massimiliano Guasoni (University of Southampton);

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

13:00 Acoustically Induced Dressed States of Erbium Ions for Telecom-band Optomechanics

Invited *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.);*

13:20 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);

13:35 Non-Hermitian Point Gap and Skin Effect in Photonic Metastructures

Invited *Yuto Moritake (The University of Tokyo); Masaya Notomi (NTT Corporation);*

13:55 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);

14:10 Anomalous Wave-packet Dynamics in Non-Hermitian Systems

Yanyan He (Tohoku University); Tomoki Ozawa (Tohoku University);

14:25 Surface Acoustic Wave-based Cavity Magnomechanics for Strong Coupling between Magnons and Microwave Phonons

Invited *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.);*

14:45 Return of the Skin Effect: Non-Hermitian Skin Effect in Photonics

Invited *Heming Wang (Westlake University);*

- 15:05 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);
- 15:20 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);
- 15:35 **Coffee Break**
- 16:00 Nonlinear Resonator Networks: From Complex Optics
 Invited to Advanced Computing and Sensing
Alireza Marandi (California Institute of Technology);
- 16:20 Dirac Branch-cut modes with Relativistic Transport
 Invited
Bofeng Zhu (Nanyang Technological University); Chengzhi Ma (Nanyang Technological University); Qiang Wang (Nanjing University); Gui-Geng Liu (Westlake University); Xiuhai Zhang (Nanyang Technological University); Zheyu Cheng (Nanyang Technological University); Qi Jie Wang (Nanyang Technological University); Baile Zhang (Nanyang Technological University); Yidong Chong (Nanyang Technological University);
- 16:40 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);
- 16:55 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);
- 17:10 Observation of Exceptional Chains Protected by Non-
 Invited Hermitian Latent Symmetries Unique to Second-order Dynamical Equations
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);
- 17:30 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));

- 17:45 Single Atom Quantum Probes for Dissipative Topological Phase Transitions
Wenbo Sun (Tianjin University); Wei Nie (Tianjin University);

Session 0P21

Structured Light: From Classical to Quantum 1 & 2

Monday PM, July 27, 2026

Room 21 - CR 29

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

Chaired by Carmelo Rosales-Guzmán, Ling-Ling Ma, Jian Chen

- 13:00 Parity and Radial Momentum Control in Optical Vortices
 Invited
Zhenwei Xie (Shenzhen University);
- 13:20 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);
- 13:40 Prime Number Factorization with the Structured Random Lights
 Invited
Chunhao Liang (Shandong Normal University);
- 14:00 Fisher Information, Atomic-scale Optical Metrology and Advanced Super-resolution Imaging
 Keynote
Nikolay I. Zheludev (University of Southampton);
- 14:30 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);
- 14:50 Silicon Bowtie Nanocavities with Nanoelectromechanical Spectral Tuning for Quantum Light Sources
 Invited
Sergei Lepeshov (Technical University of Denmark); Daniel Alec Farbowitz (Technical University of Denmark); Thor August Schimmell Weis (Technical University of Denmark); Bingrui Lu (Technical University of Denmark); Babak Vosoughi Lahijani (Technical University of Denmark); Mikkel Heuck (Technical University of Denmark); Soren Stobbe (Technical University of Denmark);

- 15:10 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*);
- 15:25 Generation and Modulation of Optical Lattice
Hao Zhang (*Henan University of Science and Technology*);
- 15:40 **Coffee Break**
- 16:00 Self-assembly Nanophotonic Sources
Invited
Jiangang Feng (*University of Science and Technology of China*);
- 16:20 Spatiotemporal Optical Field Manipulation via Two-dimensional Space-time Duality
Invited
Wei Chen (*Nanjing University*); An-Zhuo Yu (*Nanjing University*); Ling-Ling Ma (*Nanjing University*); Yan-Qing Lu (*Nanjing University*);
- 16:40 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*);
- 17:00 Manipulation of Angular Momentum and Topological Structures in Vector Optical Fields
Invited
Jian Chen (*University of Shanghai for Science and Technology*);
- 17:20 Vector Vortex Solitons and Chaoticons in Nonlocal Nonlinear Media
Invited
Hui-Cong Zhang (*Zhejiang A&F University*);
- 17:40 Difference-frequency Generation for Noise-resilient Spatial Mode Cryptography
Subith Kumar (*University of the Witwatersrand*); Moslem MahdaviFar (*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*);
- 17:55 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*);
- 18:10 Rapid Turbulence Channel Characterization with Deep Learning Enabled Multi-mode Detector
Qixin Zhang (*Xidian University*); Sachleen Singh (*University of the Witwatersrand*); Wenjie Jiang (*Xidian University*); Ling Cheng (*University of the Witwatersrand*); Mingjian Cheng (*Xidian University*); Lixin Guo (*Xidian University*); Andrew Forbes (*University of the Witwatersrand*);

- 18:25 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)*);

Session 0P22a

Poster Session for Best Student Presentation Awards Competition - Part 1

Monday PM, July 27, 2026

Poster Area

- 1 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)*);
- 2 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*);
- 3 Electromagnetic Parasitic Extraction and Structural Self-equalization for 3D Memristor Crossbar Arrays
Jiarui Qiu (*Zhejiang University*); Hanzhi Ma (*Zhejiang University*);
- 4 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*); Hongming Fei (*Taiyuan University of Technology*); Binzhao Cao (*Taiyuan University of Technology*);
- 5 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*);
- 6 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*);

- 7 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);
- 8 Tunable Optical Properties of 2DMs/SiO₂ Heterostructure with Nanoindented Metasurface
Gaoyuan Wang (Fudan University); Zihao Cai (Fudan University); Mengyuan Tang (Fudan University); Shaojuan Li (Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences); Tatyana Petrova (Institute of Chemical Engineering, Bulgarian Academy of Sciences); Hongyu Tang (Fudan University);
- 9 Multifunctional 2-bit VO₂-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);
- 10 Optical Meron Lattices Generated from Quasi-symmetry Groups
Guangfeng Wang (Shanghai Jiao Tong University); Bo Wang (Shanghai Jiao Tong University);
- 11 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);
- 12 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);
- 13 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);
- 14 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);
- 15 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);
- 16 Piezoelectrically Compensated Ta₂O₅ 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);
- 17 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);
- 18 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);
- 19 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);

- 20 Exposure Optimized Wireless Power Transfer Design: Optimal Coil Separation
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);
- 21 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);
- 22 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);
- 23 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);
- 24 An Amplitude Corrected-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); Xiangkun Zhang (National Space Science Center, Chinese Academy of Sciences);
- 25 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);
- 26 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);
- 27 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);
- 28 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);
- 29 Enhancing RF Magnetometry via Spin Amplification
Yufan Niu (Fudan University); Yanhong Xiao (Fudan University);
- 30 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);
- 31 Dirac-engineered Photonic Crystals for Energy-sensitive Transition Radiation at Brewster Angles
Vigen Gareyan (Alikhanyan National Laboratory);
- 32 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);
- 33 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);
- 34 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);
- 35 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); Qiuhui Chu (Laser Fusion Research Center, China Academy of Engineering Physics); Xiaojun Zhu (Soochow University);

- 36 AI-native 6G RANs: A Standards-compliant Theoretical Framework and Proposed Validation Methodology
Roberts Pildavs (Riga Technical University); Jelena Kulikova (Riga Technical University); Romualds Beļinskis (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);
- 37 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);
- 38 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);
- 39 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);
- 40 Reconfigurable Liquid Crystal Physical Unclonable Function Device
Hong-Xing Wen (Xiamen University); Jinhui Chen (Xiamen University);
- 41 Sb₂S₃ 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);
- 42 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);
- 43 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); Qingtao Sun (Eastern Institute of Technology, Ningbo); Wen Chen (The Hong Kong Polytechnic University); Qing Huo Liu (Eastern Institute of Technology);
- 44 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");
- 45 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 Jiao Tong University); Tailong Xiao (Shanghai Jiaotong University); Guihua Zeng (Shanghai Jiao Tong University);
- 46 Terahertz Multidimensional Surface Wave Manipulation Based on Programmable Metadevices
Yiming Wang (Nankai University); Fei Fan (Nankai University);

Session 0P22b
Poster Session 1

Monday PM, July 27, 2026
14:00 PM - 18:00 PM
Poster Area

- 51 An Infinite Wave Propagation Speed Attainable Independently of Source Functions: Part (II)
Namik Yener (Istanbul 29 Mayis University);

- 52 Research on Low RCS Optimization Based on FFD Parameterization and High-order MoM
Hongbin Zhang (Southwest University of Science and Technology); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd.); Qiangming Cai (Southwest University of Science and Technology); Zongwei Zhan (Southwest University of Science and Technology); Jun Zhou (); Lei Xu (Sichuan Jiuqiang Communication Technology Co., Ltd.); Gong-Qiang Fan (Sichuan Jiuqiang Communication Technology Co., Ltd.); 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); Jun Fan (Southwest University of Science and Technology);
- 53 Design of a Miniaturized Self-packaged D-band High-selectivity Filter Based on Rectangular Coaxial Structure
Xiaojun Wu (China Mobile Internet of Things Company); Xinyao Liu (China Mobile Internet of Things Company); 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);
- 54 Statistical Characteristics of HPM Backdoor Coupling Effect on UAVs Based on Random Coupling Model
Meiying Li (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Qiangming Cai (Southwest University 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 University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);
- 55 Resolving Complex EMC Environments: Mixed-field Localization and Waveform Recovery for Coexisting Wideband and Narrowband Sources
Peng Liu (Southwest University of Science and Technology); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd.); Bin Xie (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); Hongqiu Xie (Southwest University of Science and Technology (SWUST-TIRI)); Yuan Zhang (AVIC Chengdu Aircraft Industrial (Group) Co., Ltd.); Jun Zhou (Sichuan Shuzhi Sensor Inspection and Testing Co., Ltd.); Yuyu Zhu (Southwest University of Science and Technology);
- 56 A Nosie-matched Method for FZA Lensless Imaging
Pengtao Jiang (Huazhong University of Science and Technology); Jiangye Kuang (Optics Valley Laboratory); Yi Ding (Optics Valley Laboratory); Xiaoqun Yuan (Wuhan University); Wenzhong Liu (Huazhong University of Science and Technology);
- 57 All-dielectric Quarter Wave Plate for Wide THz Bandwidth
Rebeca Tudor (IMT);
- 58 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);
- 59 Inverse Design of Focusing Metalens
Yung-Chiang Lan (National Cheng Kung University); Hong-Yang Chao (National Cheng Kung University);
- 60 Miniaturized Self-packaged D-band Wide Stopband Multiplexer Based on Micro-rectangular Coaxial Structure
Xiaojun Wu (China Mobile Internet of Things Company); Xinyao Liu (China Mobile Internet of Things Company); 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);
- 61 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);
- 62 Self-assembled Quantum Dots in Integrated Waveguide Devices for On-chip Quantum Photonics
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); Yimin You (Southwest Institute of Technical Physics); Meiyu He (Southwest Institute of Technical Physics); Tong Li (Guizhou University of Engineering Science); Haizhi Song (Southwest Institute of Technical Physics & UESTC);
- 63 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);

- 64 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);
- 65 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);
- 66 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");
- 67 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);
- 68 Design of a K/Ka-band Polarization-reconfigurable Circularly Polarized Shared-aperture Antenna Element for Satellite Communications
Wenhan Li (Southwest Jiaotong University); Xiangqiang Li (Southwest Jiaotong University); Jianqiong Zhang (Southwest Jiaotong University); Qingfeng Wang (Southwest Jiaotong University);
- 69 A Novel 3.5G Antenna Design
Zeyu Li (Lanzhou University);
- 70 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);
- 71 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);
- 72 A FOWLP T/R SiP with Eutectic MoCu Chip Carrier for Enhanced 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); Like Deng (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Shiping Mao (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Tao Bai (Sichuan Institute of Piezoelectric and Acousto-optic Technology); Huaqiang Yu (Sichuan Institute of Piezoelectric and Acousto-optic Technology);
- 73 Wideband Gap Waveguide-based Mechanically Reconfigurable Phase Shifter for High-power Applications
Zhiqiang Liu (Purple Mountain Laboratories); Haiyang Xia (Purple Mountain Laboratories); Huan Liu (Purple Mountain Laboratories); Lianming Li (Purple Mountain Laboratories);
- 74 Harmonic Distortion Analysis in Integrated Wireless Power Transfer and Power Line Communication Systems
Marco Raugi (Universita di Pisa);
- 75 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 Liplāns (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);
- 76 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);
- 77 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);

- 78 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);
- 79 Low-altitude L2 Signal Reconstruction for FY-3 GNOS Data Using the Physics-constrained Deep Learning Algorithm
Xinjie Liu (Fudan University); Gengming Jiang (Fudan University); Zhengzheng Ma (China Research Institute of Radiowave Propagation); Liang Chen (China Research Institute of Radio Propagation);
- 80 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);

Session 1A1

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

Tuesday AM, July 28, 2026

Room 1 - CR 1

Organized by Lei Bi, Wei Han, Xianglei Huang

Chaired by Lei Bi

- 8:00 Sounding the Atmosphere from Geostationary Orbit —
Invited 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);

- 8:20 Research Progress on Atmospheric Composition Observation of Fengyun Satellites
Invited *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);*
- 8:40 Global Retrieval of Single-layer Liquid Cloud Geometrical Thickness via OCO-2 Hyperspectral Oxygen A-band Observations
Siwei Li (Wuhan University);
- 8:55 AI-driven Reconstruction of WRF-Chem Aerosol Fields Using Spaceborne Lidar
F. Hu (Wuhan University); Feiyue Mao (Wuhan University);
- 9:10 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);
- 9:25 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);
- 9:40 Pretraining-enhanced Satellite Sensing Toward Instant On-orbit Monitoring
Xing Yan (Beijing Normal University);

10:00 Coffee Break

10:30 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);

10:45 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);

11:00 Assimilating All-sky Satellite Radiance Data for Binary Typhoon Forecasting Using the POD-3DnVar Method
Mingyang Zhang ();

11:15 AI-empowered Microwave Interferometric Radiometry
Hao Liu (Center for Space Science and Applied Research, Chinese Academy of Sciences);

Session 1A2a**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

8:00 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);

8:20 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);

8:40 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);

8:55 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);

9:10 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);

9:25 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);

9:40 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);

9:55 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);

9:58 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);

10:05 Coffee Break

10:30 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);

- 10:16 RFI Localization Based on Virtual Large Aperture with Compressed Sensing and Joint Satellite-UAV Detection
Liangbing Chen (Sun Yat-sen University);

Session 1A2b

Advances of Synthetic Aperture Radar Imaging Techniques: Acquisition and Processing

Tuesday AM, July 28, 2026

Room 2 - CR 2

Organized by Yan Wang

Chaired by Yan Wang

- 11:00 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);
- 11:15 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);
- 11:18 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);
- 11:21 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);
- 11:24 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);

Session 1A3

Advance on Radar Scattering of Random Media and Applications

Tuesday AM, July 28, 2026

Room 3 - CR 3

Organized by Ying Yang, Kun-Shan Chen

Chaired by Ying Yang, Kun-Shan Chen

- 8:00 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);
- 8:15 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);
- 8:30 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);
- 8:45 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);
- 9:00 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 Hwa University);
- 9:15 Integration of the Whittle-Matérn Model into Bistatic Scattering Formulations for Enhanced Surface Roughness Characterization
Yang Du (Zhejiang University); Yiqin Wang (Zhejiang University); Zhou Shi (Zhejiang University); Zhao-Liang Li (Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences);
- 9:30 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);

10:00 Coffee Break

10:30 On Imaging Quality Under Beam-pointing Errors in the Earth Observation Moon-based Synthetic Aperture Radar

Zhen Xu (Hohai University); Souadi Khouloud (Lin-hao Sun) (Hohai University); Jiaqi Chen (Hohai University); Kun-Shan Chen (Nanjing University); Ying Yang (Nanjing University);

10:45 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);

11:00 Coherent Change Detection using Millimeter-wave GB-SAR

Toshifumi Moriyama (Nagasaki University);

11:15 Electromagnetic Scattering from Anisotropic Surfaces with Multiscale Roughness

Ying Yang (Nanjing University); Kun-Shan Chen (Nanjing University);

11:30 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);

Session 1A4
Advances in Intelligent Electromagnetic Computation and Optimization Techniques

Tuesday AM, July 28, 2026

Room 4 - CR 6

Organized by Jia Nan Zhang, Jian Wei You

Chaired by Jia Nan Zhang

8:00 MetaSeeker: Creating an Open Invisible Space

Invited

Chao Qian (Zhejiang University);

8:20 Physics-informed Inverse Design

Invited

Ren Wang (University of Electronic Science and Technology of China);

8:40 Adaptive Sampling Algorithms in Automated Neural-based Model Generation for Microwave Components

Invited

Weicong Na (Beijing University of Technology); Hao-tian Dai (Beijing University of Technology); Zhaojie Bai (Beijing University of Technology); Wanrong Zhang (Beijing University of Technology);

9:00 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);

9:20 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);

9:35 Cascaded GSM Modeling of Multilayer Resistive-film Metasurfaces with Floquet Mode Coupling

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);

10:00 Coffee Break

10:30 Adjoint-based Material Characterization for Si-based 3-D Heterogeneous Integration

Zi Xing Wei (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);

10:45 Domain-knowledge Retrieval-augmented Generation for Design of Electromagnetic Metasurfaces

Yan Zhang (Southeast University); Xuan Zhen (Southeast University); Jian Wei You (Southeast University);

11:00 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);

11:15 Free-space Optical Visual Processor by Transfer Learning

Jingtian Hu (Harbin Institute of Technology, Shenzhen); Xudong Lv (Harbin Institute of Technology, Shenzhen); Yuxiang Sun (Harbin Institute of Technology, Shenzhen);

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

Tuesday AM, July 28, 2026

Room 5 - CR 7

Organized by Shuai Zhang, Jiang Xiong

Chaired by Jiang Xiong, Ming Yao

8:00 A Polyphenylene Sulfide-based Circularly Polarized Antenna with Loop Metasurface for GPS Applications

Chi Zhang (Shanghai Polytechnic University); Jianying Zhao (Shanghai Polytechnic University); Xiaokun Gu (Shanghai Polytechnic University); Li Zhang (Shanghai Polytechnic University);

- 8:15 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);
- 8:30 Research on Array Beam Scanning Technology with Intelligent Control Method
Guangwei Yang (Northwestern Polytechnical University);
- 8:45 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);
- 9:00 A Three-dimensional Absorbed Power Density (APD) Averaging Algorithm for Nonplanar Human Body Models in Localized EMF Exposure Assessment
Ming Yao (Aalborg University); Gert Frohnd Pedersen (Aalborg University); Shuai Zhang (Aalborg University);
- 9:15 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);
- 9:30 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);
- 10:00 **Coffee Break**
- 11:00 Wideband Linear-to-circular Polarizer Metasurfaces for Efficient Antenna Systems
Daniel Martinez-de-Rioja (Universidad Politécnica de Madrid); Borja Imaz-Lueje (Universidad Rey Juan Carlos); Eduardo Martinez-de-Rioja (Universidad Rey Juan Carlos); Jose Antonio Encinar Garcinuno (Universidad Politécnica de Madrid); Manuel Arrebola (Universidad Politécnica de Madrid);
- 11:15 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); Bo Lin (Southwest University of Science and Technology); Qi Chen (Southwest University of Science and Technology); Liang Liu (Southwest University of Science and Technology);
- 11:30 W-band 2×2 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);
- 11:45 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);

Session 1A5b
Metasurface & Metamaterials Antenna

Tuesday AM, July 28, 2026

Room 5 - CR 7

Chaired by Manuel Arrebola

- 10:30 A High-scanning-rate Dual-band Leaky-wave Antenna Based on SSPPs that can Suppress the Open Stopband Effect
He Xu (Hangzhou Dianzi University); Baicao Pan (Hangzhou Dianzi University);
- 10:45 High-gain Reconfigurable Antenna in Ka-band Based on a Large Passive Metasurface with Active Feeder
Daniel Martinez-de-Rioja (Universidad Politécnica 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 Politécnica de Madrid); Manuel Arrebola (Universidad Politécnica de Madrid);

Session 1A6
High Power Microwaves: Sources and Applications 1

Tuesday AM, July 28, 2026

Room 6 - CR 9

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

Chaired by Mikhail Yu. Glyavin, Nikolai Yu. Peskov

- 8:00 Results and Trends in High Power Gyrotron Development
Invited ment
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);

- 8:20 Selective Cavities with Dielectric Elements for High-harmonic Terahertz Gyrotrons
Invited
Ilya V. Bandurkin (Institute of Applied Physics RAS); Mikhail Yu. Glyavin (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Ivan M. Letavin (Institute of Applied Physics Russian Academy of Sciences); Ekaterina M. Novak (A. V. Gaponov-Grekhov Institute of Applied Physics, RAS); Ivan V. Osharin (Institute of Applied Physics, RAS); Andrei V. Saviolov (A. V. Gaponov-Grekhov Institute of Applied Physics, RAS); Vasiliy 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);
- 8:40 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);
- 8:55 Design of a Mode Generator Setup for Cold Measurements on a 238 GHz TE_{49,29}-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));
- 9:10 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);
- 9:25 W-band Gyrotron for Hard Rock Drilling
Invited
Alex Shteinman (Ariel University); Yarden Shay (Ariel University); Sergey Shevchenko (Ariel University); Moritz Pilosof (Ariel University); Moshe Einat (Ariel University);
- 9:45 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. 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);
- 10:00 **Coffee Break**
- 10:30 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 (KIT)); 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));
- 10:50 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);
- 11:10 Development of sub-THz Gyro-BWO with Zigzag Quasioptical 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);

- 11:25 Multifrequency Gyromultiplier with Sectioned Electron Beam
Invited
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);
- 11:40 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);
- 11:55 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); Chenxi He (Huazhong University of Science and Technology); Xianfei Chen (Huazhong University of Science and Technology); Qihan Dong (Huazhong University of Science and Technology);

Session 1A7**Advancing Photonics with Gender Diversity****Tuesday AM, July 28, 2026****Room 7 - CR 10**

Organized by Yiwei Xie, Shuxia Guo

Chaired by Shuxia Guo

- 8:00 Raman Microscopy and Spectroscopy for Biomedical Applications
Invited
Jing Huang (South China Normal University);
- 8:20 Label-free Infrared Spectroscopy for Early Detection of Pediatric Lipid Metabolism Disorders
Leiying Xie (Zhejiang University); Yingke Xu (Zhejiang University);
- 8:35 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);
- 8:55 Degradation Compensation for Single-pixel Imaging in Practical Scenarios
Invited
Zihan Geng (Tsinghua University);

- 9:15 Transferable Modelling in Raman Spectroscopy
Invited
Shuxia Guo (Leibniz Institute of Photonic Technology (Leibniz-IPHT)); Thomas Bocklitz (Leibniz Institute of Photonic Technology);
- 9:35 Correlative Photothermal Infrared Imaging of Amyloids in Cells and Tissues
Invited
Oxana Klementieva (Lund University);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:50 Too Few Female Authors — What Can Nature Help?
Invited
Rachel Pei Chin Won (Nature Reviews Electrical Engineering);
- 11:10 Roundtable Discussion
Yiwei Xie (Zhejiang University);

Session 1A8**Intelligent Metasurfaces for Imaging, Display and Computation****Tuesday AM, July 28, 2026****Room 8 - CR 11**

Organized by Yurui Qu, Hui Gao

Chaired by Yurui Qu, Hui Gao

- 8:00 Metasurface-enabled Thermal Metrology: Advancing High-precision Thermometry through Engineered Dispersion
Invited
Mu Ku Chen (City University of Hong Kong);
- 8:20 Controlling the Multiple Degrees of Freedom in Optical Metasurfaces
Invited
Bo Xiong (Zhejiang University); Yihan Li (Zhejiang University);
- 8:40 Transformer-based Neural Network Enabled Subpixel-resolution in Wide-field Meta-microscope
Shanshan Hu (Nanjing University); Tao Li (Nanjing University);
- 8:55 Multichannel Light Manipulation and Holography Based on Metasurfaces and Liquid Crystals
Invited
Wenjuan Du (Xiangtan University);
- 9:15 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);
- 10:00 **Coffee Break**

- 10:30 Spatial Light Modulator via Optical Addressed Meta-
Invited surface
Hui Gao (Huazhong University of Science and Technology);
- 10:50 Sub-diffraction Limit Quantum Metrology for Nanofab-
Invited rication
Wenyi 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);
- 11:10 MEMS-mirrors-coupled Bilayer Metasurfaces
Invited
Fei Ding (Eastern Institute of Technology);
- 00:00 AI-assisted Broadband Imaging with Metasurfaces
Invited
Yaoguang Ma (Zhejiang University);
- 00:00 Metasurface Enabled Multi-information Intelligent Vi-
Invited sual Perception
Yue Qiang Hu (Hunan University);
- 8:20 Acoustic Density of States and Coherent Sound Radia-
tion
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);
- 8:35 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);
- 8:50 Low-frequency Broadband Perforated Ventilated Acous-
tic Metamaterial
Yifan Zhu (Southeast University); Youyu Mo (Southeast University); Hui Zhang (Southeast University);
- 9:05 Transverse Acoustic Kerker Effect
Mikhail V. Smagin (ITMO University); I. A. Timankova (ITMO University); Pavel Sergeevich Pankin (ITMO University); Mihail I. Petrov (ITMO University);
- 9:20 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);
- 9:35 Symmetry-induced Dynamic Exceptional Point within
Structured Vortex Fields for Ultrasensitive Metrology
*Xiao Li (Nanjing University of Aeronautics and Astro-
nautics); Yangyang Fu (Nanjing University of Aeronau-
tics and Astronautics);*
- 10:00 **Coffee Break**
- 10:30 Uniguided 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);
- 10:45 Degeneracy of Non-Hermitian Systems: From Excep-
tional Point to Exceptional Deficiency
Zhen Li (Hong Kong Baptist University); Guancong Ma (Hong Kong Baptist University);
- 11:00 Elastic Modes and Willis Coupling in Labyrinthine
Acoustic Meta-atoms
*I. A. Timankova (ITMO University); Mikhail V. Sma-
gin (ITMO University); M. Kuzmin (ITMO University); Andrey A. Bogdanov (Harbin Engineering University); Yong Li (Tongji University); Mihail I. Petrov (ITMO University);*

Session 1A9

Non-Hermitian and Resonant Phenomena in Acoustic Metastructures

Tuesday AM, July 28, 2026

Room 9 - CR 12

Organized by Badreddine Assouar, Yong Li

Chaired by Yong Li

- 8:00 Symmetry-protected Acoustic Bound States in the Con-
Invited tinuum Beyond the Diffraction Limit
Anton Khalyapin (ITMO University); Yong Li (Tongji University); Mihail I. Petrov (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);

- 11:15 Bound States in the Continuum Emergence in Periodic Structures
Invited
Ilia Igorevich Karavaev (ITMO University); Andrey A. Bogdanov (Harbin Engineering University);

Session 1A10

Advanced Topological and Non-Hermitian Light Manipulations

Tuesday AM, July 28, 2026

Room 10 - CR 13

Organized by Luqi Yuan, Guangzhen Li

Chaired by Luqi Yuan, Guangzhen Li

- 8:00 Band Topology Detection from Temporal Interface Effect
Invited
Liang Jin (Nankai University);
- 8:20 Synthetic Non-Abelian Gauge Fields for Photons
Invited
Yi Yang (The University of Hong Kong);
- 8:40 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);
- 9:00 Nonequilibrium Topological Phases on Programmable Quantum Processors
Invited
Feng Mei (Shanxi University);
- 9:20 Direction-dependent Dissipative Coupling in Photonic Cavities
Invited
Gui-Geng Liu (Westlake University);
- 9:40 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);
- 9:55 Chiral Superradiance Phenomena in Waveguide QED and Its Applications
Zhaohang Guo (Tianjin University); Wei Nie (Tianjin University);
- 10:00 **Coffee Break**
- 10:30 Nonlinear Exceptional Point
Invited
Meng Xiao (Wuhan University);
- 10:50 Angular Momentum Conservation in Photonic Lattices with Nontrivial Band-touching
Invited
Daohong Song (Nankai University);
- 11:10 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);

- 11:30 Soliton Mediated by Skin-mode Localization and Band Nonreciprocity
Invited
Kun Ding (Fudan University);
- 11:50 Sensing with Non-Hermitian Exceptional Deficiency
Ziqi Wang (Hong Kong Baptist University); Guangcong Ma (Baptist University of Hongkong);

Session 1A11

High-dimensional Metamaterials: Fabrication, Integration, and Applications

Tuesday AM, July 28, 2026

Room 11 - CR 15

Organized by Hao Wang, Liaoyong Wen

Chaired by Liaoyong Wen, Hao Wang

- 8:00 Aluminum 3D Lithography: Enabling High-dimensional Metasurface for Advanced Sensing
Invited
Liaoyong Wen (Westlake University);
- 8:20 Topological Integrated Photonic Chips for Terahertz Wireless Communications
Invited
Wenhao Wang (Westlake University);
- 8:40 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);
- 8:55 Three Printing Glass Opto-mechanical Elements
Invited
Zhihan Hong (Shanghai Jiao Tong University);
- 9:15 Three-dimensional Direct Laser Writing for Advanced Optical Information Display
Invited
Qifeng Ruan (Harbin Institute of Technology, Shenzhen);
- 9:35 Multi-wavelength Light Manipulation by Designer High-dimensional Nanostructures
Cheng-Feng Pan (Singapore University of Technology and Design);
- 10:00 **Coffee Break**
- 10:30 Shape-reconfigurable Structures for Dynamic Visible-to-long-wave Infrared Multiband Regulation
Invited
Yujie Ke (Lingnan University);
- 10:50 Deep Learning Empowered Intelligent Design of High-dimensional Metamaterials
Invited
Jinfeng Zhu (Xiamen University);
- 11:10 Optical Metasurfaces for Imaging, Sensing, and Display
Keynote
Junsuk Rho (Pohang University of Science and Technology (POSTECH));
- 11:40 Topological Wave Matter Interaction
Invited
Yijie Shen (Nanyang Technological University);

Session 1A12**Quantum State Manipulation and Its Device Applications 1****Tuesday AM, July 28, 2026****Room 12 - CR 16**

Organized by Hai-Ou Li, Xiang-Xiang Song

Chaired by Xiang-Xiang Song

8:00 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);*

8:20 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);*

8:40 Flux Engineering in Superconducting Quantum Devices

Invited *Mingtang Deng (National University of Defense Technology);*

9:00 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);*

9:20 Microwave Quantum Routing and Emission of a Single Artificial Atom

Invited *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);*

9:40 Quantum Acoustoelectric Transport in Moiré Superlattices

Invited *Cheng Zhang (Fudan University);*

10:00 Coffee Break

10:30 Reconfigurable Photocurrent Response in Anisotropic Semimetal Nb₃SiTe₆ for Position Sensing

Invited *Qinsheng Wang (Beijing Institute of Technology);*

10:50 Emergent Moiré NEMS for Quantum Sensing

Invited *Xin Zhang (Institute of Semiconductors, Chinese Academy of Sciences);*

11:10 Spin-orbit Coupling and Stoichiometric Photogalvanic Effect in Oxygen-substituted VSe₂

Invited *Xu Li (Xiamen University); Shiming Wu (Xiamen University); Yaping Wu (Xiamen University); Zhiming Wu (Xiamen University); Junyong Kang (Xiamen University);*

11:30 Low-power Two-dimensional Organic Logic and Memory Devices

Invited *Zhongzhong Luo (Nanjing University of Posts and Telecommunications);*

Session 1A13a**Quantum Computation, Quantum Simulation and Quantum Metrology****Tuesday AM, July 28, 2026****Room 13 - CR 17**

Organized by Yukai Wu, Pan-Yu Hou

Chaired by Yukai Wu, Pan-Yu Hou

8:00 Quantum Simulation of Spin-boson Systems with Trapped-ion

Invited *Yiheng Lin (University of Science and Technology of China);*

8:20 Structural Transitions and Melting of Two-dimensional Ion Crystals in RF Traps

Invited *Boris Blinov (University of Washington);*

8:40 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); Dzmity Matsukevich (National University of Singapore);*

9:00 Progress on Quantum Computation and Simulation with 2D Trapped Ion Crystals

Invited *Yukai Wu (Tsinghua University);*

9:20 Trapped-Ion Quantum Simulation of Chemical Dynamics beyond Born-Oppenheimer

Invited *Guido Pagano (Rice University);*

9:40 Issues on Scaling Long-chain Trapped-ion Quantum Processors

Invited *Yao Lu (Hefei National Laboratory);*

10:00 Coffee Break

10:30 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);

10:50 Dynamical Freezing and Enhanced Magnetometry in an Interacting Spin Ensemble
Invited

Pan-Yu Hou (Tsinghua University);

Session 1A13b

Quantum Information Processing and Devices 1

Tuesday AM, July 28, 2026

Room 13 - CR 17

Organized by Guangwei Deng, Shihai Wei, Haizhi Song

Chaired by Haizhi Song

11:10 Chip-integrated Quantum Signature Network over 200 km
Invited

Yongqiang Du (Guangxi University); Kejin Wei (Guangxi University);

11:30 Non Local Wavefront Correction: From Quantum to Classical to Computational
Invited

Shuai Sun (National University of Defense Technology);

11:50 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);

Session 1A14a

Nanophotonics in Low-dimensional Materials and Their Applications 1

Tuesday AM, July 28, 2026

Room 14 - CR 18

Organized by Yunyun Dai, Jiahua Duan

Chaired by Yunyun Dai

8:00 Advancements in Nonlinear Optics of 2D Materials

Keynote

Zhipei Sun (Aalto University);

8:30 THz s-SNOM Technique and Its Applications in Nanophotonics
Invited

Shu Chen (University of Shanghai for Science and Technology (USST));

8:50 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);

9:10 Plasmonic Dirac-vortex Cavities for Programmable Lasers
Invited

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

9:30 High-pressure Tuning of Hyperbolic Plasmons in Black Phosphorus
Invited

Chong Wang (Beijing Institute of Technology);

9:50 What is the Absorption Limit of a Two-dimensional Conductive Film?

Jie Luo (Soochow University);

10:05 Coffee Break

Session 1A14b

Near-Zero-Index Photonics: Physics, Devices, and Applications

Tuesday AM, July 28, 2026

Room 14 - CR 18

Organized by Qian Li, Jiaye Wu

Chaired by Qian Li, Jiaye Wu

10:30 Ultrafast Thermo-optic Nonlinearity in Time-varying Epsilon-Near-Zero Interfaces
Invited

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);

10:50 Polarization-entangled Photon Pair Generation from an Epsilon-near-zero Metasurface
Invited

Yuanmu Yang (Tsinghua University);

11:10 Manipulation of Epsilon-near-zero Platforms and Applications towards Complex Photonic Systems
Invited

Qian Li (Peking University);

11:30 Ultrafast Electron Dynamics and Extreme Nonlinear Optics in Low-electron-density Drude Materials
Invited

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);

Session 1A15**Advanced Materials and Devices for Optoelectronics and Photonics 1****Tuesday AM, July 28, 2026****Room 15 - CR 19**

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

Chaired by Kwang-Sup Lee, Jing Feng

8:00 Organic Mixed Ionic-Electronic Conductors for Photothermal Interfaces
Keynote*Sinoh Park (Yonsei University); Eunkyong Kim (Yonsei University);*8:30 PEDOT: PSS Conductive Polymers for Photo-thermal Devices
Invited*Yoon Kim (Hannam University); Hyunji Hwang (Hannam University); Jisoo Jung (Hannam University); Tae-Dong Kim (Hannam University);*8:50 Newly Designed Drug Delivery System by Using Nanoprodugs
Invited*Hitoshi Kasai (Tohoku University);*9:10 Sensory Neuromorphic Displays Enabling Health Monitoring and Therapy
Invited*Cheolmin Park (Yonsei University);*9:30 High-resolution Optoelectronic Devices Based on Femtosecond Laser Precision Manufacturing
Invited*Yue-Feng Liu (Jilin University);*10:00 **Coffee Break**

10:30 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);*10:45 Molecular Organization and Emergent Functionality in Optical Cavities
Invited*Kenji Hirai (Hokkaido University);*11:05 Block Copolymer Self-assembly for Photonics & Information Security
Invited*Sangouk Kim (KAIST);*11:25 Wavefront Engineered Laser Scanning Microscopy Enabling Rapid Three-dimensional Imaging
Invited*Yuichi Kozawa (Tohoku University);*11:45 Development of Organic Semiconducting Materials for Organic Electronics
Invited*Yun-Hi Kim (Gyeongsang National University);***Session 1A16****Ultrafast and Nonlinear Nanophotonics 2****Tuesday AM, July 28, 2026****Room 16 - CR 20**

Organized by Sergey V. Makarov, Costantino De

Angelis, Kirill Koshelev, Mihail I. Petrov

Chaired by Kirill Koshelev, Mihail I. Petrov

8:00 Moiré Cavity Quantum Electrodynamics

Invited

*Feng Liu (Zhejiang University);*8:20 Nanoscale Light Confinement & Scattering: From Classical to Quantum On-chip Meta-devices
Invited*Zhaogang Dong (Singapore University of Technology and Design);*8:40 Quantum Tunneling Induced Nonlinear Optics in Plasmonic Nanocavities
Invited*Dangyuan Lei (City University of Hongkong);*9:00 Metamembranes for Linear, Nonlinear, and Tunable Optical Control
Invited*Tal Ellenbogen (Tel-Aviv University);*9:20 Nonlinear Optical Resonances from Ballistic Electron Funnelling
Invited*Lin Wu (Singapore University of Technology and Design (SUTD));*

9:40 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));*10:00 **Coffee Break**10:30 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);*10:50 Ultrafast Optical and THz Magnetophotonics
Invited*Vladimir I. Belotelov (M. V. Lomonosov Moscow State University);*11:10 Dark Optical Trapping for Quantum Control of Levitated Masses
Invited*Anton V. Zasedatelev (Aalto University);*11:30 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));*

Session 1A17**Metasurface Polarization and Diffraction Optics
2****Tuesday AM, July 28, 2026****Room 17 - CR 25**

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

Chaired by Zi-Lan Deng

- 8:00 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);
- 8:15 Generation of Complex-amplitude Fully-polarized Optical Fields via Metasurfaces
Qingsong Yao (Wuhan University); Zile Li (Wuhan University); Guoxing Zheng (Wuhan University);
- 8:30 Metasurface-enabled Advanced Displaying
Invited *Cheng Zhang (Huazhong University of Science and Technology);*
- 8:50 Metasurface-based Near- and Far-field Vector Holography
Invited *Dandan Wen (Northwestern Polytechnical University);*
- 9:10 Deep-subwavelength Mode Modulation in Microwave Plasmonic Metamaterials
Invited *Xuanru Zhang (Southeast University);*
- 9:30 Nonlinear Directional Emission on Monolayer MoS₂ by Optical Orbit-orbit Coupling
Xianglong Wang (University of Science and Technology of China); Jincheng Ni (University of Science and Technology of China);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 Hybrid ENZ-dielectric Metasurfaces for Enhanced Light-matter Interaction
Xuanyi Liu (Sun Yat-sen University); Zhang-Kai Zhou (Sun Yat-Sen University);
- 11:00 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);*

- 11:20 Polarization Control via Artificial Optical Nonlinearity 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);

Session 1A18**Optical and Spectroscopic Tracking of Nanoscale Dynamics in Living Systems****Tuesday AM, July 28, 2026****Room 18 - CR 26**

Organized by Seok-Cheol Hong, Hyeon Jeong Lee

Chaired by Seok-Cheol Hong, Hyeon Jeong Lee

- 8:00 Surface-enhanced Raman Spectroscopy for Metabolite Detection in Serum
Invited *Jian Ye (Shanghai Jiao Tong University);*
- 8:20 Label-free Optical Nanoscopy of Intracellular Trafficking in Living Cells
Invited *Seok-Cheol Hong (Korea University);*
- 8:40 Nanomolar-sensitivity Chemical Imaging of Single Bacteria via Metasurface Photothermal Microscopy
Invited *Siyang Peng (Westlake University);*
- 9:00 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);*
- 9:20 How Do Cells Sense the Physical World: Measuring Integrin Force and Its Loading Rate
Invited *Myung Hyun Jo (Korea University);*
- 9:40 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);*
- 10:00 **Coffee Break**
- 10:30 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);

- 10:45 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);
- 11:00 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);
- 11:15 Sensing Chemical Bonds by Fluorescence-detected Mid-infrared Photothermal Microscopy
Jingwen Duan (Zhejiang University); Hyeon Jeong Lee (Zhejiang University);
- 11:30 Bio-chemical Visualization through Photothermal IR and Stimulated Raman Spectroscopy
Hailong Hu (Photothermal Spectroscopy Corp@China); Changlong Liu (Photothermal Spectroscopy Corp@China);

Session 1A19

Topological Photonics 1

Tuesday AM, July 28, 2026

Room 19 - CR 27

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

Chaired by Mudi Wang

- 8:00 Exotic Band Engineering and Topological Physics with Synthetic Frequency Dimension
 Invited *Guangzhen Li (Shanghai Jiao Tong University); Luqi Yuan (Shanghai Jiao Tong University);*
- 8:20 Topological Photonic Crystal Fiber
 Invited *Bofeng Zhu (Nanyang Technological University); Qi Jie Wang (Nanyang Technological University); Yidong Chong (Nanyang Technological University);*
- 8:40 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);*

9:00 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);

- 9:20 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);

- 9:35 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);

10:00 Coffee Break

- 10:30 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);

- 10:50 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);

- 11:10 Critical Topological Phase Transition

Keynote

Baile Zhang (Nanyang Technological University);

- 11:40 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

- 8:00 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);*
- 8:40 Integrated Nanophotonics with Structured Nanoscale Materials
Invited *Danqing Wang (Fudan University);*
- 9:00 Non-Hermitian Zero-index Materials for Manipulating Exceptional Points
Invited *Jie Luo (Soochow University);*
- 9:20 Invisible Sensors with Enhanced Sensitivity by Exotic Metamaterials
Invited *Fei Sun (Taiyuan University of Technology); Yichao Liu (Taiyuan University of Technology);*
- 9:40 Chiral Valley Edge States
Invited *Wenjie Chen (Sun Yat-Sen University);*
- 10:00 **Coffee Break**
- 10:30 Planar Near-Zero-Index Metamaterials for Radiation Engineering
Invited *Ziheng Zhou (Fuzhou University);*
- 10:50 Achieving Polarization-independent Transformation-invariant Metamaterials
Tongshuang Tian (Zhejiang University); Yuqi Wang (Zhejiang University); Xiaojun Hu (Zhejiang University); Dexin Ye (Zhejiang University);
- 11:05 Topological Phase Singularities in Hybrid Polaritonic Systems
Youtao Huang (Tongji University); Zhiwei Guo (Tongji University);
- 11:20 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);*

- 11:40 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);

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

- 8:00 Spatiotemporal Probing of Free-electron-photon Interactions in Nanophotonic Structures via UTEM
Jun Li (Institute of Physics, Chinese Academy of Sciences); Huaiyin Yang (Institute of Physics, Chinese Academy of Sciences); Jianqi Li (Institute of Physics, Chinese Academy of Sciences);
- 8:15 Reversed Cherenkov Radiation via Fizeau-Fresnel Drag
Invited *Bowen Zhang (Zhejiang University); Zheng Gong (Zhejiang University); Xiao Lin (Zhejiang University);*
- 8:35 Quantum Spectroscopy of Optical Near Fields Using Free Electron Rabi Oscillations
Invited *Yiming Pan (ShanghaiTech University); Bin Zhang (ShanghaiTech University); Daniel Podolsky (ShanghaiTech University);*
- 8:55 Integrated Photonic Chips for Free-electron-photon Interactions
Invited *Yujia Yang (Shenzhen International Quantum Academy);*
- 9:15 Quantum Nanophotonics with Free Electrons
Keynote *F. Javier García de Abajo (ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology);*
- 9:45 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);
- 10:00 Nanoscale Femtosecond Coherent Radiation and Spatiotemporally Shaped Free Electron Wave Function
Wu Wen (Peking University); Jing Li (Peking University); Yunquan Liu (Peking University);
- 10:15 **Coffee Break**

10:30	Free-electron Radiation from Highly-correlated Electron Beams	1	An APAR-based Method for Coastal Sea Surface Salinity Retrieval under Rainy Conditions
Invited	<i>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 Kaminer (Solid State Institute and Faculty of Electrical & Computer Engineering);</i>	2	<i>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);</i>
10:50	Reconfigurable Electron-beam-driven Light Generation in Tunable Finite Arrays	3	Circular Fourier-basis Selection for Solving Electromagnetic Inverse Scattering Problem
Invited	<i>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);</i>	4	<i>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);</i>
11:10	Out-of-Equilibrium Thermally Excited Plasmonic Hybrid Modes Electron Spectroscopy	5	Dual-stream 1D-CNN with CBAM for Simultaneous Fault Diagnosis in Energy Storage Converters
	<i>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);</i>	6	<i>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);</i>
11:25	High-dimensional Entanglement with Orbital Angular Momentum States of Quantum Structured Free-electron	7	Design of an Efficient E-class Digital Power Amplification System for Medium-wave Communication
	<i>Leshi Zhao (Peking University); Jing Li (Peking University); Yunquan Liu (Peking University);</i>	8	<i>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);</i>
11:40	Free Electrons as Flying Ancillas for Quantum Optical State Tomography	9	Unsupervised Battery Consistency Detection via Pairwise Dynamic Time Warping and Isolation Forest
	<i>Yuhan Jiang (Peking University); Jing Li (Peking University); Dixuan Wu (Peking University); Yunquan Liu (Peking University);</i>	10	<i>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);</i>
11:55	Indirect Multiphoton Scattering between Light and Bulk Plasmons via Ultrafast Free Electrons	11	Study on Output Power of a WPT System Based on Dual-inverter Phase-shift Regulation
	<i>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);</i>	12	<i>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);</i>
Session 1A22 Poster Session 2 Tuesday AM, July 28, 2026 9:00 AM - 12:00 AM Poster Area			Session 1A22 Poster Session 2 Tuesday AM, July 28, 2026 9:00 AM - 12:00 AM Poster Area
		7	Design of a Low-temperature-coefficient and High-PSRR Bandgap Reference
			<i>Xiang Yin (Southwest Jiaotong University); Quanyuan Feng (Southwest Jiaotong University); Chunyu Xia (Chengdu Technological University);</i>

- 8 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);
- 9 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);
- 10 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);
- 11 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);
- 12 Magnitude Vector Fitting Algorithm Based of 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); 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 (Sichuan Shuzhi Sensor Inspection and Testing Co., Ltd.); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology); Shengzun Wang (Southwest University of Science and Technology);
- 13 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);
- 14 Numerical Analysis of Modeling Nonlinear Dynamics in Ring Resonators
Denis Zurikovs (Riga Technical University); Kristaps Rubuls (Riga Technical University); Ints Murnans (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);
- 15 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);
- 16 547-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);
- 17 Radiation Characteristics of Triangular Patch Array Antenna in Various Weighting Functions and Feeding Techniques
Achmad Munir (Institut Teknologi Bandung); Muhamad Roihan (Telkom University Jakarta Campus); Rizki Surya Permana (Telkom University Jakarta Campus); Muhammad Farhan Maulana (Telkom University Jakarta Campus); Rheyuniarto Sahlander Asthan (Institut Teknologi Sumatera); Novelita Rahayu (National Research and Innovation Agency (BRIN)); "nobreakspaceSulistyaningsih (Institut Teknologi Bandung); Junas Haidi (Institut Teknologi Bandung); Fakhruddin Ahmad Nasution (Institut Teknologi Bandung); Mohammad Ridwan Effendi (Institut Teknologi Bandung);
- 18 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);
- 19 GS3 and TDR Calibration for Organic and Organomineral Tundra Soils of the Norilsk Urban District
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);

- 20 VO₂-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);
- 21 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);
- 22 Accuracy of Fast Algorithm for Scattering by Low Scattering Target
Wen-Jing Chen (East China Research Institute of Electronic Engineering);
- 23 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);
- 24 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);
- 25 PDN Impedance Flattening Method with Multi-capacitor Parallelization in Power Integrity
Zhongkun Feng (Southwest University of Science and Technology); Hao-Ran Jiang (Sichuan Jiuzhou Electric Appliance Group Co., Ltd.); 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); 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);
- 26 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);
- 27 Robust Zero Backscattering in Duality-symmetric Non-Hermitian Systems
Yang Zhang (Soochow University); Jie Luo (Soochow University);
- 28 Reversing Nonlinear Transmission Modulation 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);
- 29 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);
- 30 Design and Optimization of Fabry-Pérot Interferometric Displacement Sensing for Force-detected ESR
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);
- 31 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);

- 32 Mechanisms for Tuning Microwave Dielectric Properties in CaWO_4 -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);
- 33 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);
- 34 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);
- 35 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);
- 36 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);
- 37 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);
- 38 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);
- 39 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);
- 40 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);
- 41 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);
- 42 Limitations of Direct Sampling Method with Nonzero Constant Substitution for Missing Data
Youngho Woo (National Institute for Mathematical Sciences); Won-Kwang Park (Kookmin University);
- 43 State-of-charge Estimation for LiFePO_4 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);

- 44 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);
- 45 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);
- 46 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);
- 47 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);
- 48 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);
- 49 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); Xin Shang (Southwest University of Science and Technology);
- 50 A 7.9-GHz 0.18- μm 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);
- 51 A PatchTST Network-based Deep Learning Method for Radar Sea Clutter Recursive Prediction
Chenyi Cai (Beijing Institute of Technology); Changhao Liu (Beijing Institute of Technology); Yan Wang (Beijing Institute of Technology); Xuege Yang (Department of Transport Planning and Research Institute, Ministry of Transport); Guangbin Zhang (Yangtze Delta Region Academy of Beijing Institute of Technology);
- 52 Design and Research 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); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (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);
- 53 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);
- 54 Polarization Insensitive Waveguide Crossing Using 500nm SOI
Muhammad Shemyal Nisar (University of Shanghai for Science and Technology (USST)); Naeem Ullah (Zhejiang University); Ata Ur Rahman Khalid (Queen's University Belfast);
- 55 Multipath and Doppler Shift Modeling Method Based on Ray Tracing
Shengzun Wang (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); 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);
- 56 IC Nano Scale Circuits, Using High Energy Wave for Silicon Wafer Imprinting by Colliding Process of Sub Atomic Particles
Diyaar Bajalan (Technische Universität Wien);

- 57 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);
- 58 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);
- 59 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);
- 60 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);
- 61 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);
- 62 Design of a Decentralized Pulsating Array Digital Beam-forming for Radar Applications
Liu Yang (CSSC Eighth Research Institute); Jiahui Xu (CSSC Eighth Research Institute); Wenfeng Chen (CSSC Eighth Research Institute); Dongfang Xia (CSSC Eighth Research Institute);
- 63 EMI Shielding Effectiveness Evaluation of Twisted-pair Multi-core Cables
Cheng Liu (Southwest University of Science and Technology); Chunging 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);
- 64 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);
- 65 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); Ting Ye (Institute of Southwestern Communication); Jinlu Liu (Institute of Southwestern Communication); Wei Huang (Institute of Southwestern Communication); Bingjie Xu (Institute of Southwestern Communication);
- 66 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);
- 67 Numerical-aperture Optimization for a Two-stage Meta-surface 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);
- 68 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);
- 69 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);

- 70 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");
- 71 Dual-wavelength Solar-blind Photodetectors Based on β -Ga₂O₃/GeO₂ Heterostructures
Ziyu Li (Ningbo University); Dongdong Meng (Beijing MIG Semiconductor Co., Ltd.); Zhengwei Chen (Beijing University of Posts and Telecommunications); Xu Wang (Ningbo University);
- 72 Research on Improvement of Temperature Control System for Monitoring Device Based on Intelligent Fuzzy Control Algorithm
Bihong Zhan (China Ship Development and Design Center);
- 73 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);
- 74 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);
- 75 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);
- 76 High-gain Compact Waveguide Slot Array Using Dielectric End-fire Structure for X-band Radar
Young-Bae Jung (Hanbat National University); Mun-Cheol Lim (Hanbat National University); Yong-Myeong Kim (Hanbat National University);
- 77 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);
- 78 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);
- 79 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); Fuming Tan (Nanjing University of Science and Technology);
- 80 A Dual-band Bandpass Filter Based on CSRR-loaded Quarter-mode Substrate Integrated Waveguide
Jie Zheng (Southwest University of Science and Technology); Zuxue 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);

Session 1P0
Hot Topics in Photonics and Electromagnetics

Tuesday PM, July 28, 2026
Room 0 - Chongshan Hall B

Organized by Sailing He

 Chaired by Sailing He

- 16:30 Welcome Address by General Chair on behalf of Nanjing
Hot Topic University
Kun-Shan Chen (Nanjing University);
- 16:35 Annoucement of 2026 PIER Awards
Hot Topic
Leung Tsang (University of Michigan & President of The Electromagnetics Academy);
- 16:45 Metamaterials in Time — The New Frontier
Hot Topic
John B. Pendry (Imperial College London);
- 17:00 Annoucement of 2026 New Fellow of The Electromagnetics Academy
Hot Topic
Leung Tsang (University of Michigan & President of The Electromagnetics Academy);

- 17:05 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);
- 17:20 Topological Vector Acoustics
Hot Topic
Ming-Hui Lu (Nanjing University);
- 17:30 Sustainable Manufacturing of Optical Metasurfaces with Engineered Optical Materials
Hot Topic
Junsuk Rho (Pohang University of Science and Technology (POSTECH));
- 17:40 The Case for Timetronics
Hot Topic
Nikolay I. Zheludev (University of Southampton);
- 17:50 Photoacoustic, Light-speed, and Quantum Imaging/Physics
Hot Topic
Lihong Wang (California Institute of Technology);
- 18:00 AI: The Missing Link for Translational Biophotonics
Hot Topic
Jürgen Popp (Friedrich Schiller University);
- 18:10 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);
- 18:20 A Post-lithium-niobate Era for Nonlinear Optics
Hot Topic
Cheng-Wei Qiu (National University of Singapore);
- 13:20 Impacts of Mineralogy and Size on the Spectral Variation of Dust Lidar Properties and Hyper-spectral Reflectance
Invited
Tony La Luna (UMBC); Zhibo Zhang (University of Maryland, Baltimore County); Qianqian Song (University of Maryland, Baltimore County); Hongbin Yu (NASA);
- 13:40 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);
- 13:55 Retrieval of Aerosol Scattering Phase Function and Polarized Phase Function from Spaceborne Multiangle Polarimetric Observations
Jiachen Ding (Nanjing University);
- 14:10 Efficient Aerosol Retrieval via a Hybrid Mamba and Transformer
Zike Xu (Shenzhen University); Wenjuan Qi (Shenzhen University); Yunfei Ye (Shenzhen University); Huizeng Liu (Shenzhen University); Guanglang Xu (Shenzhen University);
- 14:25 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);
- 14:40 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);
- 14:55 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);
- 15:10 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);

Session 1P1

Pioneering Advances in Spaceborne Remote Sensing and Data Assimilation: Observations, Retrievals, Theoretical Frameworks, and AI Innovations 2

Tuesday PM, July 28, 2026

Room 1 - CR 1

Organized by Lei Bi, Wei Han, Xianglei Huang

Chaired by Lei Bi

- 13:00 Passive Remote Sensing of Aerosol Vertical Distribution: Theory and First Results
Invited
Jun Wang (University of Iowa); Zhendong Lu (University of Iowa); Xi Chen (University of Iowa);

16:00 **Coffee Break**

Session 1P2**Electromagnetic Inverse Problems: Challenges, Methods, and New Directions**

Tuesday PM, July 28, 2026**Room 2 - CR 2**

Organized by Martina Teresa Bevacqua, Rocco Pierri

Chaired by Raffaele Solimene, Loreto Di Donato

- 13:00 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);

- 13:15 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);

- 13:30 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);

- 13:45 Inverse Scattering Approach to Inverse Design of Shared-aperture Multiband Antenna

Xudong Chen (National University of Singapore); Yujie Zhang (Nanyang Technological University);

- 14:00 AI for Electromagnetics and High-dimensional Inverse Design of Electromagnetic Structure

Zhun Wei (Zhejiang University);

- 14:15 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);

- 14:30 High-performance GPU-accelerated MLFMA for Equivalent Source Reconstruction of 3-D Surfaces

Zhuoping Tang (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);

- 14:45 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);

- 15:00 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);*16:00 **Coffee Break**

Session 1P3**Emerging Remote Sensing Technologies for Hydrology**

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

Organized by Jiangyuan Zeng, Xiang Zhang

Chaired by Jiangyuan Zeng, Xiang Zhang

- 13:00 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);

- 13:15 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);

- 13:30 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));

- 13:45 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);

- 14:00 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);

- 14:15 Impact of Raindrop Size Distribution on Weather Radar Reflectivity and Its Incorporation in Quantitative Precipitation Estimation

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);

- 14:30 Exploring the Potential of Satellite Precipitation Products for AI-based Large-sample Hydrological Modeling
Han Meng (Wuhan University); Guoqiang Tang (Wuhan University);
- 14:45 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);
- 16:00 **Coffee Break**

Session 1P4

Advances in Electromagnetic Wave Propagation and Scattering: Theory, Modeling, and Applications

Tuesday PM, July 28, 2026

Room 4 - CR 6

Organized by Hao Qin, Xinyue Zhang

Chaired by Hao Qin

- 13:00 Towards a Learning-driven Framework for Bidirectional Wave Propagation Modeling over Irregular Terrain
Hao Qin (Sichuan University);
- 13:15 Physics-embedded Graph Neural Networks for Indoor Path-loss Prediction with Material and Geometry Generalisation
Haochang Wu (University College Dublin); Hao Qin (Sichuan University); Xinyue Zhang (University College Dublin); Xingqi Zhang (University of Alberta);
- 13:30 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);
- 13:45 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);
- 14:00 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);
- 14:15 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));
- 14:30 Reflection and Transmission of Nonuniform Plane Waves at Charged Planar Interfaces between Two Lossy Isotropic Media
Zhili Lin (Huaqiao University);
- 14:45 Reflection and Transmission of Laser Beams from Arbitrary Lossy Bianisotropic Metamaterials
Zhili Lin (Huaqiao University);
- 15:00 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);
- 15:15 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);
- 15:30 Impact of High-resolution NWP Data and DEM on Atmospheric Refractivity Modeling for LEO Satellite Communication
Bowoo Jang (Pohang University of Science and Technology (POSTECH)); Hyeongjun Gwon (Pohang University of Science and Technology (POSTECH)); Dong-Yeop Na (Pohang University of Science and Technology);
- 16:00 **Coffee Break**

Session 1P5a

Advanced Antenna Array Beamforming for MIMO Systems: Hardware Design and Algorithms

Tuesday PM, July 28, 2026

Room 5 - CR 7

Organized by Shuai S. A. Yuan, Li Wei

Chaired by Shuai S. A. Yuan

- 13:00 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);
- 13:15 Quantum Annealing-inspired Optimization for Antenna Array Beamforming
Shuai S. A. Yuan (Aalto University); Wei E. I. Sha (Zhejiang University);
- 13:30 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);
- 13:45 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);
- 14:00 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);
- 14:15 Random Multiplexing Based Wind-disturbance-tolerant Beamforming Scheme with Power Allocation for UAVs
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);
- 14:45 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);
- 15:00 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);
- 15:15 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);
- 15:30 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);
- 16:00 **Coffee Break**

Session 1P5b

Advanced Antenna and Circuit Design Techniques for Wireless Communication

Tuesday PM, July 28, 2026

Room 5 - CR 7

Organized by Junbing Duan, Henghui Wang

Chaired by Junbing Duan

- 14:30 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);

Session 1P6

High Power Microwaves: Sources and Applications 2

Tuesday PM, July 28, 2026

Room 6 - CR 9

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

Chaired by Mikhail Yu. Glyavin, Wenjie Fu

- 13:00 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);

- 13:15 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);
- 13:35 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);
- 13:55 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);
- 14:10 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);
- 14:25 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 Mikhailovich Malkin (Institute of Applied Physics, Russian Academy of Sciences);
- 14:40 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);
- 14:55 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);
- 15:10 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);
- 15:25 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);
- 15:40 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);
- 16:00 **Coffee Break**

Session 1P7
Short-Oral Presentations for Best Student Presentation Awards Competition - Part 2

Tuesday PM, July 28, 2026
Room 7 - CR 10

 Chaired by Kazuya Kobayashi, Qing Huo Liu, Haizhi Song, Ferdinando Nunziata, Fei Ding

- 13:00 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);
- 13:03 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); Zhao Yuan Wang (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);
- 13:06 Surface Phonon Polariton Resonances in a Hexagonal 6H-SiC Cylinder Array Excited by a Cylindrical Wave
Nikita D. Aniutin (Russian New University);
- 13:09 Enhancing Goos-Hänchen Shift with Guided Mode Resonance in Temporal Grating
Youxiu Yu (Nanjing University of Aeronautics and Astronautics);
- 13:12 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);
- 13:15 Impact of Convective Nonlinearities on Terahertz Plasmons in Drifting Two-dimensional Electron Gas
Hanghui 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);
- 13:18 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);
- 13:21 Metasurface Enhanced Mid-infrared Photothermal Spectroscopy
Tianrun Zhang (Zhejiang University); Zhibin Hu (Westlake University); Siying Peng (Westlake University); De-long Zhang (Zhejiang University);
- 13:24 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);
- 13:27 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));
- 13:30 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);
- 13:33 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);
- 13:36 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);
- 13:39 Reconfigurable Nanophotonic PUFs Based on 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);

- 13:42 A 2.4GHz and 5.8GHz Dual-band Co-aperture Meta-surface Slot Antenna for Bidirectional Coverage in Mine Tunnels
Ruibo Chen (Xi'an University of Science and Technology); Wang Yao (Wuhan University); Xiaojun Huang (Xi'an University of Science and Technology);
- 13:45 A 40MHz PVT-stabilized Relaxation Oscillator Using Voltage Averaging Feedback in 55 nm CMOS
Siyun Ding (Shanghai Jiao Tong University); Yinjun Tu (SGR Semiconductors); Xinen Zhu (SGR Semiconductors); Hammad M. Cheema (National University of Sciences and Technology); Xuyang Lu (Shanghai Jiao Tong University);
- 13:48 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);
- 13:51 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);
- 13:54 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);
- 13:57 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);
- 14:00 Enhanced Spatiotemporal Soil Moisture Mapping from CyGNSS Following the 2021 Zhengzhou Extreme Flood
Lei Hong (University of Alcala); Shuanggen Jin (Henan Polytechnic University); Andres Calabia Aibar (University of Alcala);
- 14:03 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);
- 14:06 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);
- 14:09 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);
- 14:12 Asymptotic Methods for Inverse Scattering Problems with Electrically Large PEC Structures
Yue Feng Tan (National University of Singapore); Xudong Chen (National University of Singapore);
- 14:15 Inverse Design Based on Machine Learning for Transmissive-Frequency-Selective-Surfaces
Huangjian Fei (Soochow University); Yilin Zheng (Soochow University);
- 14:18 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); Junyu Chen (Chengdu Technological University); Xiaopei Chen (Chengdu Technological University); Shouqiang Li (Chengdu Technological University);
- 14:21 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);
- 14:24 Beyond Optical Chirality Density: Tensor Descriptors of Electromagnetic Chirality
Ilia 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);
- 14:27 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);

- 14:30 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);
- 14:33 Designing a Magnetically Tunable Antenna: A Methodology for Multiband Anti-jamming
Mario Chiaparrini 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);
- 14:36 A New Method for Fast Simulation of Spatially Separated Cascaded Dielectric Metasurfaces
Haoman Wang (Zhejiang University); Haogang Wang (Zhejiang University);
- 14:39 Drop-shaped Optical Microfiber Enabled Biomechanical Sensor
Yan Xu (Zhejiang University); Lei Zhang (Zhejiang University);
- 14:42 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.);
- 14:45 Flexible Framework for Automated Small-signal Model Extraction for InP/GaAs D-HBTs: Combining Optimization with Physics-based Constraints
Loïc Pouzenc (Univ. Toulouse, CNRS, LAAS); Mohammed Zaknune (IEMN, Institut d'Electronique de Microélectronique et de Nanotechnologie); Jean Guy Tartarin (Univ. Toulouse, CNRS, LAAS);
- 14:48 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);
- 14:51 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);
- 14:54 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);
- 14:57 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);
- 15:00 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);
- 15:03 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);
- 15:06 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);
- 15:09 Broadband Polarization Conversion Metasurface Based on Graphene-assembled Film
Xinrui Zhao (Wuhan University of Technology); Kun Wang (Wuhan University of Technology); Hao-ran Zu (Wuhan University of Technology); Rongguo Song (Wuhan University of Technology);
- 15:12 Efficient Transformer-based S -parameter Extraction for Multiple Transmission Lines in PCB
Ke Guo (Southern University of Science and Technology); Xiaohan Pei (Southern University of Science and Technology); Quan Chen (Southern University of Science and Technology);
- 15:15 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);
- 15:18 **Coffee Break**

Session 1P8**Non-Hermitian Metamaterials and Topological Insulators****Tuesday PM, July 28, 2026****Room 8 - CR 11**

Organized by Zhi Hong Hang, Yuting Yang

Chaired by Zhi Hong Hang, Yuting Yang

- 13:00 Hollow Real Symmetry and Infinite Non-Abelian Topology in Multiband Systems
Invited *Changhao Meng (Hong Kong University of Science and Technology); Che Ting Chan (The Hong Kong University of Science and Technology);*
- 13:20 Observable Geometric Phase Effects in Topological Photonic Crystals
Invited *Xing-Xiang Wang (Shanghai University); Xiao Hu (Shanghai University);*
- 13:40 Flat-band Skin Effect
Invited *Guancong Ma (Baptist University of Hongkong); Xu-long Wang (Hong Kong Baptist University);*
- 14:00 Harnessing Photonic Topological States via Geometry and Dissipation
Mingyang Li (Fudan University); Jing Lin (Fudan University); Kun Ding (Fudan University);
- 14:15 Topological Rainbow in Non-Hermitian Systems
Wen Zhao (Beijing Institute of Technology); Cuicui Lu (Beijing Institute of Technology);
- 14:30 Anti-parity-time Symmetry in Elastostatics
Changqing Chen (Hong Kong Baptist University); Aoxi Wang (Hong Kong Baptist University);
- 14:45 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);
- 15:00 Higher-order Topology in a Photonic Nodal Ring Semimetal
Invited *Yuchen Peng (Westlake University); Gui-Geng Liu (Westlake University);*
- 15:20 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);
- 16:00 **Coffee Break**

Session 1P9**Acoustic/Elastic Metamaterials for Various Applications 1****Tuesday PM, July 28, 2026****Room 9 - CR 12**

Organized by Fuyin Ma, Rui Zhu, Xue Jiang

Chaired by Fuyin Ma

- 13:00 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);*
- 13:20 Design Principle and Applications of Acoustic Metagratings
Invited *Jun Mei (South China University of Technology);*
- 13:40 Topological Acoustic Tweezer
Invited *Xuefeng Zhu (Huazhong University of Science and Technology);*
- 14:00 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);*
- 14:20 Gear Fault Detection via Deep-subwavelength Rainbow Trapping Effect of Higher-order Topological Mechanical Metamaterials
Invited *Baizhan Xia (Hunan University);*
- 14:40 Acoustic and Vibration Behavior of Compression-torsion Coupling Metamaterials
Invited *Jian Zhu (Xi'an Jiaotong University); Rui Zhang (Xi'an Jiaotong University);*
- 15:00 Tailorable Mechanical Responses of Elastic Metamaterial with Intelligent Design Methodology
Invited *Desheng Yao (Xi'an Jiaotong University);*
- 15:20 Tunable Acoustic Metasurfaces: Recent Advances and Perspective
Invited *Bingyi Liu (Hefei University of Technology);*
- 15:40 Principles, Design, and Fabrication of Subwavelength Low-frequency Broadband Acoustic Black Hole Metamaterials
Invited *Yanni Zhang (Nanjing University of Science and Technology);*
- 16:00 **Coffee Break**

Session 1P10**Dynamic and Multi-functional Metasurfaces for Wavefront Manipulation****Tuesday PM, July 28, 2026****Room 10 - CR 13**

Organized by Shah Nawaz Burokur, Kuang Zhang

Chaired by Shah Nawaz Burokur, Kuang Zhang

- 13:00 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);
- 13:15 Design of Groundless Bi-directional Metagrating-based Absorbers
Zhen Tan (Nantong University); Shah Nawaz Burokur (Paris Nanterre University);
- 13:30 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);
- 13:45 Multi-functional Spoof Plasmonic Metasurface for Dynamic Manipulation of Guiding Waves at Microwave Frequencies
Dawei Zhang (Harbin Engineering University); Yaziu 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);
- 14:00 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);
- 14:15 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);
- 14:30 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);
- 14:45 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);

- 15:00 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);
- 15:15 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);
- 15:30 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);
- 15:33 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);
- 15:48 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);
- 16:05 **Coffee Break**

Session 1P11**Classical Wave Metamaterials****Tuesday PM, July 28, 2026****Room 11 - CR 15**

Organized by Bo Wang, Wenzhe Liu

Chaired by Wenzhe Liu, Bo Wang

- 13:00 Nonreciprocal Wave Propagation Based on Nonreciprocal Bianisotropic Coupling in Metamaterials
Xinhua Wen (South China University of Technology);
- 13:20 Supercell Inverse Doppler Effect in Water Waves
Zijian Qin (Zhejiang University); Hongsheng Chen (Zhejiang University); Huaping Wang (Zhejiang University);

13:35 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);

13:55 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));

14:15 Topological Valley-locked Waveguide States in Artificial Crystals

Invited

Mudi Wang (Wuhan University); Che Ting Chan (The Hong Kong University of Science and Technology); Zhengyou Liu (Wuhan University);

14:35 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);

14:50 Accelerating Cross-scenario Intelligent Metasurface Adaptability

Invited

Chao Qian (Zhejiang University);

15:10 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);

15:25 Bound States in the Continuum of Liquid Surface Waves

Yi Zhang (Fudan University); Wenzhe Liu (Fudan University); Lei Shi (Fudan University);

16:00 Coffee Break

13:40 Low-charge Noise Germanium Hole Gases for Spin and Super-semi Quantum Devices

Ji-Yin Wang (Beijing Academy of Quantum Information Sciences);

14:00 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);

14:20 Towards Scalable Silicon Quantum Computing: A Donor-cluster Architecture for Logical Qubits and Chemical Simulation

Invited

Peihao Huang (International Quantum Academy (Shenzhen));

14:40 Universal Doubly Geometric Quantum Gates for High-order Error Suppression

Invited

Chengxian Zhang (Guangxi University);

15:00 On-demand Tunable SOC for Silicon Spin Qubit Scalable Architecture

Invited

Ranran Cai (University of Science and Technology of China);

16:00 Coffee Break

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

Session 1P12

Quantum State Manipulation and Its Device Applications 2

Tuesday PM, July 28, 2026

Room 12 - CR 16

Organized by Hai-Ou Li, Xiang-Xiang Song

Chaired by Xiang-Xiang Song

13:00 Universal Logical Operations in a Silicon Quantum Processor

Invited

Yu He (Shenzhen International Quantum Academy);

13:20 Interplay of Hyperfine Interaction and Spin-Orbit Coupling Effects on a Singlet-Triplet Hole Spin Qubit with High Quality Factor

Invited

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);

13:00 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);

13:15 Methods of Quantum-enhanced Secure Time Synchronization

Yang Li (Institute of Southwestern Communication);

13:30 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);

13:45 Silicon-based Heterogeneous Integrated Quantum Photonic Chips

Gong Zhang (Zhejiang University);

- 14:00 Building Quantum Communication Networks with Integrated Photonics
Yun Zheng (Peking University); Jianwei Wang (Peking University);
- 14:15 High-Q Crystalline Microcavities for Chip-scale Quantum Metrology
Yijie Pan (Center for Advanced Measurement Science, National Institute of Metrology);
- 14:30 Comb-based Time-frequency Transfer Over Fiber
Ziyang Chen (Beijing Institute of Technology);
- 16:00 **Coffee Break**

Session 1P14

Nanophotonics in Low-dimensional Materials and Their Applications 2

Tuesday PM, July 28, 2026

Room 14 - CR 18

Organized by Yunyun Dai, Jiahua Duan

Chaired by Yunyun Dai

- 13:00 Broadband Room-temperature Mid-infrared Detection with 2D Materials and Nanoparticles
Invited *Qi Jie Wang (Nanyang Technological University);*
- 13:20 Ultrasensitive Mid-infrared Polaritonic Spectroscopy for Nanoscale Molecular Detection and Interfacial Dynamics
Invited *Xiaoxia Yang (National Center for Nanoscience and Technology);*
- 13:40 Atomic-scale Investigation of Electron and Phonon Dynamics Using Ultrafast Scanning Tunneling Microscopy
Invited *Shaoliang Sheng (Zhejiang Qiantang Institute of Basic Sciences);*
- 14:00 Spectrally Tunable Two-dimensional Material Photodetectors for Intelligent Optoelectronics
Invited *Hoon Hahn Yoon (Gwangju Institute of Science and Technology (GIST));*
- 14:20 Ultimate Tuning of Hyperbolic Phonon Polaritons
Invited *Linglong Zhang (Nankai University); Weiwei Luo (Nankai University); Wei Cai (Nankai University); Jingjun Xu (Nankai University);*
- 14:40 Novel Electronic States in 2D Semiconducting Metastable Phase
Invited *Jian Gou (Zhejiang University);*
- 15:00 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);

- 15:15 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);
- 16:00 **Coffee Break**

Session 1P15

Advanced Materials and Devices for Optoelectronics and Photonics 2

Tuesday PM, July 28, 2026

Room 15 - CR 19

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

Chaired by Kwang-Sup Lee, Hitoshi Kasai

- 13:00 Organic Semiconductor Single Crystals for Electromagnetic Radiation Detection and Sensing
Invited *Fangru Yang (Tianjin University);*
- 13:20 High-quality Perovskite Semiconductors for Direct X-ray Detection
Invited *Guangda Niu (Huazhong University of Science and Technology);*
- 13:40 Long-range Order Enables Stable Quantum Dot Light-emitting Diodes
Invited *Ya-Kun Wang (Soochow University); Liang-Sheng Liao (Soochow University);*
- 14:00 Nanoscale Pixelated Quantum Dot Light-emitting Devices
Invited *Fushan Li (Fuzhou University);*
- 14:20 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);
- 14:23 High Open-circuit Voltage Perovskite/Organic Tandem Solar Cells
Invited *Jin Young Kim (Ulsan National Institute of Science and Technology (UNIST));*
- 14:43 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));*
- 15:03 2D BN-based Broadband Photodetectors with Thermal Stability & Self-powered Operation
Andrew F. Zhou (Indiana University of Pennsylvania);

- 15:18 Simulation Study of Low-voltage Avalanche Photodetectors Based on WSe₂/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);
- 15:33 Regulating of Evanescent Waves and Their Applications in Lithography
Gaofeng Liang (Chongqing University);
- 16:00 **Coffee Break**

Session 1P16

Ultrafast and Nonlinear Nanophotonics 3

Tuesday PM, July 28, 2026

Room 16 - CR 20

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

Chaired by Kirill Koshelev, Mihail I. Petrov

- 13:00 Empowering Topological Photonics for OAM Manipulation
Keynote
Zhigang Chen (Nankai University);
- 13:30 Active Topological Nanophotonics with Applications to Nonlinear Optics and Multi-beam Lasers
Invited
Jitong Wang (University College London); Nicolae Coriolan Panoiu (University College London);
- 13:50 Integrated Quantum and Nanophotonics with Telecom Quantum Dots
Invited
Elizaveta Semenova (Technical University of Denmark);
- 14:10 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);
- 14:30 Ultrafast Nano-imaging — Probing Structure, Coupling, and Dynamics of Matter on Its Natural Length and Time Scales
Invited
Markus B. Raschke (University of Colorado Boulder);

- 14:50 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);
- 15:10 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);
- 15:25 Exceptional Non-Hermitian Phenomena in Mie Resonators and Metasurfaces
Invited
Andrey A. Bogdanov (Harbin Engineering University);
- 15:45 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); Svitlana 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);
- 16:00 **Coffee Break**

Session 1P17

Metasurface Polarization and Diffraction Optics 3

Tuesday PM, July 28, 2026

Room 17 - CR 25

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

Chaired by Zi-Lan Deng

- 13:00 High-precision Displacement and Acceleration Sensing Based on Micro-nano Optics
Haofeng Zang (University of Science and Technology of China);
- 13:15 Research on Multifunctional Planar Optical Imaging Based on Liquid Crystals
Invited
Guoxing Zheng (Wuhan University);
- 13:35 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);
- 13:50 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 Generation of Novel Vortex Beams and Their Applications
Invited *Yuanjie Yang (University of Electronic Science and Technology of China);*
- 00:00 Chiral Emission from Chirotopic Nanostructures
Invited *Yang Chen (University of Science and Technology of China);*
- 16:00 **Coffee Break**

Session 1P18

Recent Developments of Diffractive Optical Sensors Using Machine Learning 1

Tuesday PM, July 28, 2026

Room 18 - CR 26

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

- 13:00 Programmable Diffractive Neural Networks for Information Sensing, Processing and Computing in Electromagnetic Space
Keynote *Qian Ma (Southeast University); Tie Jun Cui (Southeast University);*
- 13:30 Deep-learning Tools to Untangle Light-scattering for Imaging
Invited *L. Valantinas (AllFocal Optics Ltd., St John's Innovation Center); Tom Vettenburg (University of Dundee);*
- 13:50 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);
- 14:05 Ultrabroadband and Ultrasensitive SWIR Molecular Fingerprinting via Acoustic MXene Plasmons
Invited *Jisung Kwon (Korea University); Changhoon Park (Korea University); Yury Gogotsi (Drexel University); Chong Min Koo (Sungkyunkwan University); Myung-Ki Kim (Korea University);*

- 14:25 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);*
- 14:45 Photoinduced Metasurface Tuning for Ultrafast Optical Image Processing
Invited *Alexander S. Shorokhov (Lomonosov Moscow State University);*
- 15:05 Structured Radiation Generated with Metaphotonics
Invited *Yuri Kivshar (Australian National University);*
- 15:25 Development and Characterizing of Optical Components for Visible and Terahertz Bands
Invited *Nikolay V. Petrov (ITMO University);*
- 15:45 Machine-learning-enhanced Raman Microscopy for Rapid and Sensitive Molecular Diagnostics
Invited *Katsumasa Fujita (The University of Osaka);*
- 16:05 **Coffee Break**

Session 1P19

Topological Photonics 2

Tuesday PM, July 28, 2026

Room 19 - CR 27

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

Chaired by Meng Xiao

- 13:00 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);*
- 13:20 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);*
- 13:40 Virtual Complex Frequency Wave Excitation: Method and Applications
Invited *Zhi Hong Hang (Soochow University);*
- 14:00 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);

- 14:15 Topological Photonic Crystals for Subwavelength Imaging
Invited Dong-Yang Wang (*University of Southampton*);
- 14:35 Observation of Random-flux-induced Topological Phase Transition in Gyromagnetic Photonic Crystals
Invited Hai-Xiao Wang (*Ningbo University*);
- 14:55 Higher-order Topology in Split-ring Resonator Arrays with Dipole-quadrupole Interactions
Alina D. Rozenblit (*ITMO University*); Nikita A. Olekhno (*ITMO University*);
- 15:10 Photonic Arbitrary Chern Vectors
Xiang Xi (*Dongguan University of Technology*); Zhen Gao (*Southern University of Science and Technology*);
- 15:25 Photonic Non-Abelian Topological Insulators
Invited Tianshu Jiang (*Tongji University*);
- 15:45 Observation of Interaction-induced Delocalization and Criticality in a Flat-band System
Invited Zhaoju Yang (*Zhejiang University*);
- 16:05 **Coffee Break**

Session 1P20

AI-driven Biophotonics for Medical Diagnosis

Tuesday PM, July 28, 2026

Room 20 - CR 28

Organized by Jüergen Popp

Chaired by Jüergen Popp

- 13:00 Random Access Raman Spectroscopy with Machine Learning for Rapid Medical Diagnosis
Katsumasa Fujita (*The University of Osaka*); Yasuaki Kumamoto (*The University of Osaka*);
- 13:15 Full-range Stimulated Raman Scattering Spectroscopy and Imaging for Biomedical Applications
Jin Guo (*Peking University*); Haojie Zhang (*Peking University*); Hanqing Xiong (*Peking University*);
- 13:30 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*);
- 13:45 The Combination of Raman and AI for Biomedical Applications
Jing Huang (*South China Normal University*);

- 14:00 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*);
- 14:15 Exploring Feature Extraction Methods for Raman Spectroscopy: A Comparative Study
Jamile Jafari (*Leibniz Institute of Photonic Technology*); Thomas Bocklitz (*Leibniz Institute of Photonic Technology*);
- 14:30 Machine Learning-assisted Optical Photothermal Infrared Microscopy for Identification of Amyloids and Associated Tissue Interplay
Oxana Klementieva (*Lund University*);
- 14:45 Rapid On-site Detection of Inflammatory Biomarkers Using Portable IR and Raman Spectroscopy
Invited Christian W. Huck (*Leopold Franzens Univ Innsbruck*);
- 15:05 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*);
- 15:25 Optical Mapping of the Brain: Use of AI Tools to Reconstruct Cytoarchitectonics and Functional Connectivity
Keynote Francesco Saverio Pavone (*University of Florence*);
- 16:00 **Coffee Break**

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

- 13:00 Flexible Topological Laser Based on Polymerized Cholesteric Liquid Crystals
Invited Yu Wang (*Nankai University*); Shiqi Xia (*Nankai University*); Irena Drevensek-Olenik (*University of Ljubljana*); Xinzheng Zhang (*Nankai University*); Zhigang Chen (*Nankai University*); Jingjun Xu (*Nankai University*);

- 13:20 Recent Progress on the Flexible Perovskite/CIGS Tandems
Invited Rui Wang (Westlake University);
- 13:40 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);
- 14:00 Chalcogenide Base Microring Resonator Arrays: Research Advances and Applications in Photoacoustic Tomography and Wearable Blood Pressure Monitoring
Invited Zhaoxue Li (Sun Yat-sen University); Jingshun Pan (South China Normal University);
- 14:20 Heterogeneous Integrated Flexible Optical Modulators
Invited Junjia Wang (Southeast University);
- 14:40 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);
- 15:00 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);
- 15:15 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);
- 16:00 **Coffee Break**

Session 1P22a

Poster Session for Best Student Presentation Awards Competition - Part 2

Tuesday PM, July 28, 2026

Poster Area

- 1 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);
- 2 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);
- 3 Surface Phonon Polariton Resonances in a Hexagonal 6H-SiC Cylinder Array Excited by a Cylindrical Wave
Nikita D. Aniutin (Russian New University);
- 4 Enhancing Goos-Hänchen Shift with Guided Mode Resonance in Temporal Grating
Youxiu Yu (Nanjing University of Aeronautics and Astronautics);
- 5 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);
- 6 Impact of Convective Nonlinearities on Terahertz Plasmons in Drifting Two-dimensional Electron Gas
Hanghui 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);
- 7 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);
- 8 Metasurface Enhanced Mid-infrared Photothermal Spectroscopy
Tianrun Zhang (Zhejiang University); Zhibin Hu (Westlake University); Siying Peng (Westlake University); De-long Zhang (Zhejiang University);
- 9 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);

- 10 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));
- 11 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);
- 12 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);
- 13 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);
- 14 Reconfigurable Nanophotonic PUFs Based on 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);
- 15 A 2.4 GHz and 5.8 GHz Dual-band Co-aperture Metasurface Slot Antenna for Bidirectional Coverage in Mine Tunnels
Ruibo Chen (Xi'an University of Science and Technology); Wang Yao (Wuhan University); Xiaojun Huang (Xi'an University of Science and Technology);
- 16 A 40 MHz PVT-stabilized Relaxation Oscillator Using Voltage Averaging Feedback in 55 nm CMOS
Siyun Ding (Shanghai Jiao Tong University); Yinjun Tu (SGR Semiconductors); Xinen Zhu (SGR Semiconductors); Hammad M. Cheema (National University of Sciences and Technology); Xuyang Lu (Shanghai Jiao Tong University);
- 17 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);
- 18 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);
- 19 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);
- 20 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);
- 21 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);
- 22 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);
- 23 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);

- 24 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);
- 25 Asymptotic Methods for Inverse Scattering Problems with Electrically Large PEC Structures
Yue Feng Tan (National University of Singapore); Xudong Chen (National University of Singapore);
- 26 Inverse Design Based on Machine Learning for Transmissive-Frequency-Selective-Surfaces
Huangjian Fei (Soochow University); Yilin Zheng (Soochow University);
- 27 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); Junyu Chen (Chengdu Technological University); Xiaopei Chen (Chengdu Technological University); Shouqiang Li (Chengdu Technological University);
- 28 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);
- 29 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);
- 30 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);
- 31 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);
- 32 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);
- 33 A New Method for Fast Simulation of Spatially Separated Cascaded Dielectric Metasurfaces
Haoman Wang (Zhejiang University); Haogang Wang (Zhejiang University);
- 34 Drop-shaped Optical Microfiber Enabled Biomechanical Sensor
Yan Xu (Zhejiang University); Lei Zhang (Zhejiang University);
- 35 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.);
- 36 Flexible Framework for Automated Small-signal Model Extraction for InP/GaAs D-HBTs: Combining Optimization with Physics-based Constraints
Loïc Pouzenc (Univ. Toulouse, CNRS, LAAS); Mohammed Zaknoune (IEMN, Institut d'Electronique de Microélectronique et de Nanotechnologie); Jean Guy Tartarin (Univ. Toulouse, CNRS, LAAS);
- 37 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);
- 38 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);
- 39 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);
- 40 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);
- 41 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);

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- 42 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);
- 43 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);
- 44 Broadband Polarization Conversion Metasurface Based on Graphene-assembled Film
Xinrui Zhao (Wuhan University of Technology); Kun Wang (Wuhan University of Technology); Hao-ran Zu (Wuhan University of Technology); Rong-guo Song (Wuhan University of Technology);
- 45 Efficient Transformer-based S -parameter Extraction for Multiple Transmission Lines in PCB
Ke Guo (Southern University of Science and Technology); Xiaohan Pei (Southern University of Science and Technology); Quan Chen (Southern University of Science and Technology);
- 46 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);
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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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- 51 Reservoir Computing with Neurophotonic for Hand-written 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);
- 52 Surface-functionalized Ceria/Silica Nanoparticle Slurries for Enhanced CMP Process
Hyunji Hwang (Hannam University); Tae-Dong Kim (Hannam University);
- 53 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);
- 54 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);
- 55 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);
- 56 Numerical Simulation of CW LED-side-pumped Nd³⁺-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);
- 57 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);
- 58 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);
- 59 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);
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- 60 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);
- 61 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);
- 62 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);
- 63 Low-frequency Long-pulse Megawatt Gyrotron
Yuriy K. Kalynov (Institute of Applied Physics, RAS); Vladimir Nikolaevich Manuilov (Institute of Applied Physics, RAS); Ivan V. Osharin (Institute of Applied Physics, RAS); Nikolai Yu. Peskov (A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences); Andrei V. Savilov (A. V. Gaponov-Grekhov Institute of Applied Physics, RAS); Vladislav Yu. Zaslavsky (Institute of Applied Physics, RAS);
- 64 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);
- 65 Electromagnetically Integrated Self-powered Wireless Sensor System Enabled by a Twistron-based CNT Energy Harvester
Chae-Lin Park (Korea Institute of Industrial Technology); Shi Hyeong Kim (Korea Institute of Industrial Technology);
- 66 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);
- 67 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);
- 68 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);
- 69 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);
- 70 Ship Detection from Landsat-8/9 Imageries Using Deep Neural Networks
Jiahao Li (Fudan University); Geng-Ming Jiang (Fudan University);
- 71 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);
- 72 A Study on Microwave Inverse Scattering Imaging Based on Dominant Current Scheme (DCS) Supervision
Xingbao Zhai (Zhengzhou University); Fazhong Shen (Zhengzhou University);
- 73 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); Jiaxing Chen (Tongji University);

- 74 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); Yining Qing (Southwest University of Science and Technology);
- 75 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);
- 76 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);
- 77 The Study of the Performance Optimization of VDMOS
Chiyuan Wang (Chengdu Technological University); Chunyu Xia (Chengdu Technological University); Xiaopei Chen (Chengdu Technological University);
- 78 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);
- 79 Research and Design of a Portable Integrated Microfluidic Device
Chengyu Ma (Northwestern Polytechnical University); Xilong Lu (Northwestern Polytechnical University);
- 80 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);

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 Yan Jia, Bo Ru

- 8:00 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);
- 8:15 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);
- 8:30 Double-layer Convolutional Architecture for Single-feature Water Level Time-series Forecasting
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);
- 8:45 Explanatory Power-driven Partition Modeling of GNSS-R Surface Reflectivity Based on GeoDetector
Zixuan Guo (Nanjing University of Information Science and Technology); Qingyun Yan (Nanjing University of Information Science and Technology);
- 9:00 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);
- 9:15 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);

9:30 Numerical Validation of a Physics-informed Neural Network for Estimating the Refractive Index Structure Parameter from Video Images of Remote Objects
Grigori A. Filimonov (V.E. Zuev Institute of Atmospheric Optics);

9:45 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));

10:00 Coffee Break

10:30 Enhancing CYGNSS River Level Retrieval via Fusion of DDM Waveform Morphological Features
Liwen Yang (Nanjing University of Posts and Telecommunications); Quan Liu (East China Normal University); Heng Yu (Nanjing University of Posts and Telecommunications); Yan Jia (Nanjing University of Posts and Telecommunications); Yaojie Liu (Nanjing University of Information Science and Technology);

10:45 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);

11:00 Physical Informed Neural Network for Atmospheric Temperature and Humidity Retrieval from Microwave Radiometry Data
Dobroslav Pavlovich 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);

11:15 Variations of the O^+/H^+ 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 Iwonin (Institute of Solar-Terrestrial Physics SB RAS);

11:30 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-ning Hu (National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration);

11:45 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); Yantong Lv (National University of Defense Technology); Xinfeng Li (Test and Evaluation for Electromagnetic Space Security State Key Laboratory);

Session 2A2

Computational Imaging

Wednesday AM, July 29, 2026

Room 2 - CR 2

Organized by Wen Chen, Rui Chen

Chaired by Wen Chen

8:00 Computational Phase Imaging for Label-free 3D Microscopy: Noninterferometric Phase Retrieval and Intensity Diffraction Tomography
Invited *Chao Zuo (Nanjing University of Science and Technology);*

8:20 Exploiting Spatiotemporal Priors for Motion-resolved Computational Microscopy
Invited *Yunhui Gao (Tsinghua University); Liangcai Cao (Tsinghua University);*

8:40 Optical Encryption with Single-pixel Imaging
Invited *Hongchao Liu (University of Macau);*

9:00 Computational Imaging with Randomness
Invited *Ryoichi Horisaki (The University of Tokyo);*

9:20 Single-pixel Non-imaging Rapid Autofocus Technology
Invited *Dongfeng Shi (University of Science and Technology of China);*

9:40 Computational Lensless Imaging Methods with High-fidelity
Invited *Zhengjun Liu (Harbin Institute of Technology); Yutong Li (Harbin Institute of Technology);*

10:00 Coffee Break

10:30 Imaging in Time-varying Scattering Media
Invited *Wen Chen (The Hong Kong Polytechnic University);*

- 10:50 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);
- 11:05 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);
- 11:08 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);

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

- 8:00 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);
- 8:15 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);
- 8:30 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);

- 8:45 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));
- 9:00 Physics-based SAR Clutter Suppression by Spectral Kernel Deconvolution
Changyu Zhou (Tongji University);
- 9:15 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);
- 9:30 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);

10:00 **Coffee Break**

Session 2A3b

Remote Sensing of the Earth, Ocean, and Atmosphere

Wednesday AM, July 29, 2026

Room 3 - CR 3

Chaired by Shuanggen Jin

- 10:30 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);
- 10:45 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);

- 11:00 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);
- 11:15 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 Itzel Carranza-García (Instituto Politécnico Nacional); Joshua Hernández-Ramírez (Instituto Politécnico Nacional);
- 11:30 Information System for Analysis of Geophysical Data Obtained by Radio-physical Instruments Of ISTEP 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);

Session 2A4

Electromagnetic Forces, from Fundamentals to Applications 1

Wednesday AM, July 29, 2026

Room 4 - CR 6

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

Chaired by Olivier J. F. Martin, Xiaohao Xu

- 8:00 Metaphotonics for Biomedical Imaging and Sensing using Electromagnetic Energy
Invited *Inki Kim (Sungkyunkwan University (SKKU));*
- 8:20 Optical Manipulation in Vivo
Invited *Xiaoshuai Liu (Guangzhou University);*
- 8:40 Dielectrophoresis of Colloids in Electrolyte Conductivity Gradients
Invited *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);*
- 9:00 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);
- 9:15 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);

- 9:30 Optical Forces Arising from Imaginary Poynting Momentum
Yuan Zhou (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);
- 9:45 Coherent Spin Control in a Rapidly Rotating Nanodiamond Levitated in an Ion Trap
Invited *Yuanbin Jin (Shanxi University);*
- 10:05 **Coffee Break**
- 10:30 Dielectrophoretic Force Estimation for Enhanced Particle Control
Invited *Siarhei Zavatski (Swiss Federal Institute of Technology Lausanne (EPFL)); Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 10:50 A Gaussian Beam Method for Optical Field Construction along Arbitrary Curved Trajectories
Invited *Shaohui Yan (Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences);*
- 11:10 Intelligent Algorithm-based Nanoscale Optical Tweezers
Invited *Xuchen Shan (Beihang University); Xiaolan Zhong (Beihang University); Fan Wang (Beihang University);*
- 11:30 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);
- 11:45 Rotational Optomechanics with Structured Transverse Orbital Angular Momentum Light
Yanhui Hu (ETH Zurich);

Session 2A5a

Advanced Materials and Metamaterials for Microwave Devices and Antennas Application

Wednesday AM, July 29, 2026

Room 5 - CR 7

Organized by Rongguo Song

Chaired by Rongguo Song

- 8:00 Design of the Beam-steering Antenna Based on Water-based Metasurface
Zhaoyang Shen (China Three Gorges University); Kai Zhou (China Three Gorges University);
- 8:15 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);

- 8:30 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);
- 8:45 Minkowski Fractal Metasurface-based Multilayer Absorber for K- and Ka-bands
Hee-Jo Lee (Daegu University);
- 9:00 A Dual-band Circularly Polarized Antenna Based on Graphene Assembled Film
Jinying Dong (Wuhan University of Technology); Rongguo Song (Wuhan University of Technology);
- 9:15 Inverse Design of Large Angle-stable FSS Based on C-GAN
Dou Tian (Chang'an University); Jiahao Li (Chang'an University); Yubin Qian (Smart Operation Branch, Ningbo Rail Transit Group Co., Ltd.);
- 10:00 **Coffee Break**

Session 2A5b

Intelligent Antenna Systems and Electromagnetic Sensing: Methods and Applications

Wednesday AM, July 29, 2026

Room 5 - CR 7

Organized by Yuan Zhao, Xiaofeng Sun

Chaired by Yuan Zhao, Xiaofeng Sun

- 10:30 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);
- 10:45 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);

- 11:00 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);
- 11:15 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);
- 11:30 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); Yi Xie (Chengdu University of Information Technology); Yuan Zhao (Chengdu University of Information Technology);
- 11:45 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);

Session 2A6

Advanced THz Communication towards 6G

Wednesday AM, July 29, 2026

Room 6 - CR 9

Organized by Wen Zhou, Xiaolong Pan

Chaired by Wen Zhou

- 8:00 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);

- 8:15 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); Siqi 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);
- 8:30 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);
- 8:45 Modulus-constrained VQVAE: A Robust Blind Neural Network Based Equalization Method for VLC Systems
Invited *Xingyu Lu (Chongqing University of Posts and Telecommunications);*
- 9:05 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); Siqi Wang (Fudan University); Tensheng Zhang (Fudan University); Xiangjun Xin (IEIT SYSTEMS (Beijing Co., Ltd.); Wen Zhou (Fudan University);
- 9:08 Research on Fiber Optic Image Transmission System Technology Integrating Artificial Intelligence and Vortex Light
Invited *Sitong Zhou (Beijing University of Posts and Telecommunications);*
- 9:28 Adaptive Optics and All-optical Processing Techniques for OAM Spatial Division Multiplexing toward High-quality Transmission
Invited *Huan Chang (Beijing Institute of Technology);*
- 10:00 **Coffee Break**
- 00:00 Weak-signal Deep-space Detection
Invited *Fang Wang (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Infrared Detection for Weak Deep-space Signals Research
Invited *Fang Wang (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);*
- 00:00 Photonics-assisted mmWave ISAC System Using CE-LFM-OTFS Waveform
Invited *Yanyi Wang (Xidian University);*
- 00:00 Low-complexity Baseband DSP Design and FPGA Real-time Verification for 6G Photonic Terahertz Communication Systems
Invited *Kaihui Wang (Fudan University);*
- 00:00 Research on Photonics-assisted THz ISAC with High Time-frequency Efficiency
Mingzheng Lei (Purple Mountain Laboratories);
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- Session 2A7a**
Short-Oral Presentations for Best Student Presentation Awards Competition - Part 3
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- Wednesday AM, July 29, 2026**
Room 7 - CR 10
- Chaired by Kun-Shan Chen, Kwang-Sup Lee, Antonello Cutolo, Raffaele Solimene, Baile Zhang
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- 8:00 Hybrid Time-domain Simulation of Electron-RF Interactions and Mode Competition in Gyrotrons
Hongbin Kim (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);
- 8:03 Fast 3D Magnetotelluric Forward Modeling with Hierarchical Spectral Elements
Xu Han (Central South University); Kejia Pan (Central South University);
- 8:06 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);
- 8:09 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);
- 8:12 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);
- 8:15 MEMS Programmable Terahertz Metadevice for Frequency-parallel Multi-gate Opto-logic
Jiahao Li (Sichuan University); Yu-Sheng Lin (Aerospace Information Technology University);

- 8:18 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);
- 8:21 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);
- 8:24 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);
- 8:27 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);
- 8:30 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);
- 8:33 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));
- 8:36 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);
- 8:39 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);
- 8:42 Nonvolatile Silicon Nitride Based Integrated Magneto-optical Switch
Di Wu (University of Electronic Science and Technology of China); Shuyuan Liu (Fudan University); Ziruan 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);
- 8:45 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);
- 8:48 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);

- 8:51 A Cognitive GPS-Synchronized Ionospheric Sounder 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); Wen-Yen Chang (National Dong Hwa University);
- 8:54 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);
- 8:57 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.);
- 9:00 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);
- 9:03 Feature Extraction of Pharyngeal Motion Sounds Using a Throat Microphone
Miho Sakai (Prefectural University of Hiroshima); Hisako Orimoto (Prefectural University of Hiroshima);
- 9:06 High-frequency Water Level Variations in the Upper Yellow River Using GNSS-IR Technology
Tao Zhang (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);
- 9:09 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);
- 9:12 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);
- 9:15 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);
- 9:18 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);
- 9:21 A Dual Knowledge Base-driven Question Answering System for Automotive EMC
Jian Pan (Chongqing University); Feng Gao (Chongqing University);
- 9:24 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);
- 9:27 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);
- 9:30 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);

- 9:33 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);
- 9:36 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); Haiwen Cai (Fudan University); Nan Chi (Fudan University);
- 9:39 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);
- 9:42 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);
- 9:45 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);
- 9:48 Improved Ice Cloud Retrievals Using a Mixed Super-ellipsoidal Model Constrained by Polarized Radiance
Yizhen Meng (Zhejiang University); Lei Bi (Zhejiang University);
- 9:51 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);
- 9:54 Ultra Robust Multi-bound States in the Continuum Metasurfaces for Generating Complex Quantum States
Zirui Guo (Yanshan University); Jianmei Li (Yanshan University);
- 9:57 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); Shuai Zhang (Aalborg University);
- 10:00 Omni-MetaLab: A Physics-aware Autonomous Agent for Robust Metasurface Inverse Design
Peng Yang (Westlake University); Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);
- 10:03 Kinetics of Photochromic Response in Nanostructured Tungsten Trioxide
Olga A. Lutikova (Dukhov Automatics Research Institute (VNIIA)); Daria P. Kulikova (Dukhov Automatics Research Institute (VNIIA)); M. E. Dokukin (Dukhov Automatics Research Institute (VNIIA)); Alexander V. Baryshev (Dukhov Automatics Research Institute (VNIIA));
- 10:06 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); Peixuan Zhu (Zhejiang University); Rongrong Zhu (Zhejiang University City College); Xin Wei (Zhejiang University); Min Huang (National University of Defense Technology); Bin Zheng (Zhejiang University);
- 10:09 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);
- 10:12 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));
- 10:15 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);
- 10:18 **Coffee Break**

Session 2A7b

Ultrafast and Nonlinear Nanophotonics 4

Wednesday AM, July 29, 2026

Room 7 - CR 10

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

Chaired by Kirill Koshelev, Mihail I. Petrov

- 10:30 Transition Metal Dichalcogenides for High-index Nanophotonics, Nonlinear Optics, and Strong Light-matter Coupling
Invited Timur O. Shegai (*Chalmers University of Technology*);
- 10:50 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*);
- 11:05 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*);
- 11:20 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*);
- 11:35 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*);
- 8:00 Topological Light Waves from Metamaterials
Invited Yijie Shen (*Nanyang Technological University*);
- 8:20 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*);
- 8:40 A Space-time Holographic Metasurface Antenna
Invited Geng-Bo Wu (*City University of Hong Kong*);
- 9:00 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*);
- 9:20 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)*);
- 9:40 A Brain-controlled Space-Time Coding Metasurface
Invited Qiang Xiao (*City University of Hong Kong*);
- 10:00 **Coffee Break**
- 10:30 Optical Imaging Based on Metasurfaces
Invited Shu-Ming Wang (*Nanjing University*);
- 10:50 Geometric Phase Metasurfaces: From Optics to Acoustics and Water Waves
Invited Shubo Wang (*City University of Hong Kong*);
- 11:10 Metasurface-integrated Multi-functional Fiber Devices
Invited Yi-Feng Xiong (*Nanjing University*); Haotian Xu (*Nanjing University*); Xiangyu Ma (*Nanjing University*); Fei Xu (*Nanjing University*);
- 11:30 Multifunctional 3D-printed Metasurfaces for Multidimensional Light-field Modulation
Invited Hongtao Wang (*Singapore University of Technology and Design*);
- 11:50 Boyer-Wolf Gaussian Modes Generation Based on Metasurface-integrated Fiber
Geze Gao (*Nanjing University*); Shu-Ming Wang (*Nanjing University*);

Session 2A8

Multifunctional Metasurfaces: Fundamentals and Applications 1

Wednesday AM, July 29, 2026

Room 8 - CR 11

Organized by Jingcheng Zhang, Tianyue Li
Chaired by Jingcheng Zhang, Tianyue Li

Session 2A9

Acoustic/Elastic Metamaterials for Various Applications 2

Wednesday AM, July 29, 2026

Room 9 - CR 12

Organized by Fuyin Ma, Rui Zhu, Xue Jiang

Chaired by Fuyin Ma

- 8:00 Observation of Returning Thouless Pumping
Zheyu Cheng (Nanyang Technological University); Si-jie Yue (Nanjing University); Yang Long (Tongji University); Wentao Xie (The Chinese University of Hong Kong); Zixuan Yu (Nanyang Technological University); Hau Tian Teo (Nanyang Technological University); Y. X. Zhao (The University of Hong Kong); Haoran Xue (The Chinese University of Hong Kong); Baile Zhang (Nanyang Technological University);
- 8:15 Multiphase Pentamode Materials and Underwater
Invited Acoustic Coatings with Simultaneous Wavefront-manipulating and Energy Absorption Capabilities
Aiguo Zhao (Nanjing University of Technology);
- 8:35 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);
- 8:55 Impact Protection to Energy-autonomous Monitoring; Harnessing Auxetic Metamaterials for Self-powered
Invited Structural Sensing
Guobiao Hu (The Hong Kong University of Science and Technology (Guangzhou));
- 9:15 Non-Hermitian Topological States in Lossy Acoustic
Invited Materials
Jien Wu (Changsha University of Science and Technology);
- 10:00 **Coffee Break**

Session 2A10

Metadevices: Emitters, Modulators, Sensors, and Detectors 1

Wednesday AM, July 29, 2026

Room 10 - CR 13

Organized by Jingxuan Wei, Danqing Wang, Zhaogang Dong

Chaired by Jingxuan Wei, Danqing Wang

- 8:00 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);

- 8:15 Miniaturized Mid-infrared Spectroscopic Sensing Plat-
Invited form based on Metasurface Thermal Emitters
Qin Chen (Jinan University); Long Wen (Jinan University);
- 8:35 Lightwave Valleytronics Based on a Meta-waveguide Op-
Invited toelectronic Chip
Haoran Ren (Monash University);
- 8:55 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);
- 9:15 Nonlocal Meta-optics: Addressing Fundamental Scaling
Invited Constraints in Imaging Systems
Yuanmu Yang (Tsinghua University);
- 9:35 Controlling Reflected Polarization and Wavefront from
Invited Transparent Media via Exploiting Symmetry-protected Metasurfaces
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);
- 10:00 **Coffee Break**
- 10:30 Monolithically Integrated High-precision Infrared Polar-
Invited ization Detectors
Jing Zhou (Shanghai Institute of Technical Physics, Chinese Academy of Sciences);
- 10:50 Wireless Body Sensor Networks Based on Metamaterial
Invited Textiles
Xi Tian (Tsinghua University);
- 11:10 Two-dimensional Mid-infrared Sensor Enabling Simul-
Keynotetaneous Perception and Encoding, and Hyperspectral Imaging
Qi Jie Wang (Nanyang Technological University);
- 11:40 Design and Simulation of a Dual Resonant C-band Meta-
material 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 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);

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

- 8:00 Quantum Light Emission from Spacetime Metamaterials
Iñigo Liberal (Universidad Pública de Navarra, Campus Arrosadía);
- 8:15 Time Interface and PTC with Synthetic Dimensions
Luqi Yuan (Shanghai Jiao Tong University);
- 8:30 Spatiotemporal Topological Phase Transitions in Photonic Spacetime Crystals
Zebin Zhu (Southern University of Science and Technology); Zhen Gao (Southern University of Science and Technology);
- 8:45 Temporal Faraday Effect Enabled by Floquet-induced Chirality
Neng Wang (Shenzhen University);
- 9:00 Observation of Anomalous Wave Scattering at Interlaminar Interfaces
Li Zhang (The University of Hong Kong);
- 9:15 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); Natalja Muračova (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);
- 10:00 **Coffee Break**
- 10:30 Wave Dynamics at Spacetime Interface
Hao Hu (Nanjing University of Aeronautics and Astronautics);
- 10:45 Probing the Dynamics of Time-varying Media Beyond Abrupt Temporal Interfaces
Lin Wu (Singapore University of Technology and Design (SUTD));
- 11:00 Anomalous Maxwell-Garnett Theory for Photonic Time Crystals
Xiao Lin (Zhejiang University); Zheng Gong (Zhejiang University);

- 11:15 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);

- 11:30 Ghost-wave Momentum Bandgaps in Floquet Lattices
Junhua Dong (Nankai University); Huan He (Nankai University); Huanan Li (Nankai University);

Session 2A12**Quantum Photonic Devices and Quantum Network****Wednesday AM, July 29, 2026****Room 12 - CR 16**

Organized by Bo Jing, Chen-Zhi Yuan

Chaired by Bo Jing, Chen-Zhi Yuan

- 8:00 Topological Optical Non-reciprocity in Room-Invited temperature Atoms
Han Cai (Zhejiang University);
- 8:20 Optomechanical Sensor Network
Invited
Qiang Zhang (Shanxi University);
- 8:40 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);
- 9:00 Remote Entanglement of Rydberg Atoms
Invited
Chaowei Yang (University of Science and Technology of China);

- 9:20 Integrated Quantum Light Source in Thin-film Lithium
Invited Tantalate for Scalable Photonic Manufacturing
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);
- 9:40 Recent Progress on Quantum Interferometers
Invited
Rui-Bo Jin (Hunan Normal University);
- 10:00 **Coffee Break**
- 10:30 Optical Nonreciprocity Induced by Parametric Nonlin-
Invited ear Processes in PPLN Waveguide
Chen-Zhi Yuan (Wuhan Institute of Technology); Shun-Ping Lu (Wuhan Institute of Technology); Rui-Bo Jin (Hunan Normal University);
- 10:50 Experimental Advances in Network-based Multiparty
Invited Quantum Information Processing
Zheng-Da Li (Shenzhen International Quantum Academy);
- 00:00 Fabrication of Near-infrared Single-photon Emitters in
Invited Silicon Carbide by Femtosecond Laser Direct Writing and Ion Implantation
Qiang Li (ZJU-Hangzhou Global Scientific and Technological Innovation Center); Xiaodong Pi (Zhejiang University); Deren Yang (Zhejiang University);
- 00:00 Wide-field Imaging of Microwaves with Spin Defects in
Invited Solids
Feifei Zhou (China Jiliang University);

Session 2A13

Quantum Sensing Methods and Applications

Wednesday AM, July 29, 2026

Room 13 - CR 17

Organized by Yong-Chun Liu, Bei Liu

Chaired by Bei Liu

- 8:00 Quantum Imaging and Quantum Measurement
Invited
Lihong Wang (California Institute of Technology);
- 8:20 High-sensitivity Operation of Unshielded Radio-
Invited frequency Atomic Magnetometers
Han Yao (Nanjing University of Science and Technology); Ferruccio Renzoni (University College London);

- 8:40 Levitated Sensor for Magnetometry in Ambient Envi-
Invited ronment
Wei Ji (Peking University); Changhao Xu (Johannes Gutenberg-Universitat Mainz); Guofeng Qu (Sichuan University); Dmitry Budker (Johannes Gutenberg-Universitat Mainz);
- 9:00 Diamond Magnetometry: From Instrumentation to Ap-
Invited plication
Yijin Xie (Zhejiang University);
- 9:20 Receiver-level Quantum Enhancement for RF-photon-
Invited ic Imaging
Zheshen Zhang (University of Michigan);
- 10:00 **Coffee Break**
- 10:30 Ultra-sensitive Magnetometry Using Levitated Magnets
Invited and Targeting Axion Dark Matter Searches
Peiran Yin (Nanjing University);
- 10:50 Photocatalytic Control of Shallow Diamond Color Cen-
Invited ter Charge States
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 Grimaud Puigibert (University of Basel); Jodok Happacher (University of Basel); Patrick Maletinsky (University of Basel);
- 11:10 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);
- 00:00 Microwave Sensing Based on Rydberg Atoms
Invited
Yuechun Jiao (Shanxi University);

Session 2A14

Terahertz Photonics 1

Wednesday AM, July 29, 2026

Room 14 - CR 18

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

- 8:00 Novel Optical Materials for the THz Frequency Range and Optical Elements Based on Them
Invited *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);*
- 8:20 Optical Metasurfaces for Manipulating Multispectral 3D Polarization Structures
Invited *Xianzhong Chen (Heriot-Watt University); Ham-mad Ahmed (Heriot-Watt University); C. Zhang (Heriot-Watt University);*
- 8:40 Terahertz Phase Modulation Technology and Devices Utilizing Thick Liquid Crystal Layers
Shuai Li (Hebei University of Technology);
- 8:55 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);
- 9:10 THz-IR Spectroscopy of Astrophysical Ice Analogues: Optical Properties, Light Scattering and Structural Features
Invited *Arseniy A. Gavgush (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);*
- 9:30 Multiplexed Gradient Metasurface for Complete Control of Terahertz Amplitude, Phase, and Polarization
Yao Li (Tianjin University); Xueqian Zhang (Tianjin University); Jianguang Han (Tianjin University);
- 9:45 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);
- 10:00 **Coffee Break**
- 10:30 A Tunable Tri-band Terahertz Sensor Based on Graphene Metamaterial
Invited *Maixia Fu (Henan University of Technology); Xiangshuai Liang (Henan University of Technology); Peiqi Fang (Henan University of Technology); Shufan Chen (Henan University of Technology); Xueying Liu (Henan University of Technology);*
- 10:50 High-performance Metamaterial-inspired Quasi-optical Instrumentation for the Range of subTHz/THz Frequencies
Invited *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. Sechenko Institute of Applied Physical Problems);*
- 11:10 Multifunctional Coding Metasurface for Terahertz Wave Manipulation
Invited *Jinhui Shi (Harbin Engineering University); Xiaohan Jiang (Harbin Engineering University); Wanying Liu (Harbin Engineering University); Chunying Guan (Harbin Engineering University);*
- 11:30 Terahertz Spectroscopy of Nonlinear Crystals and the Potential of Their Application as New Radiation Sources
Invited *Nazar A. Nikolaev (Novosibirsk State University);*
- 00:00 Tunable Mode Coupling in Metasurface for Spectral Modulation and Terahertz Metagrating
Invited *Yuancheng Fan (Northwestern Polytechnical University); Yali Zeng (Northwestern Polytechnical University); Fuli Zhang (Northwestern Polytechnical University);*

Session 2A15a

Advances in Random Medium Scattering Theory and Remote Sensing Techniques

Wednesday AM, July 29, 2026

Room 15 - CR 19

Organized by Shurun Tan, Yanlei Du

Chaired by Shurun Tan, Yanlei Du

- 8:00 An Angular-decoupled Framework for Retrieving Backscattering Coefficients Based on a System-weighted Observation Model
Zhijiao Cao (Zhejiang University); Jin Liang (Zhejiang University); Shurun Tan (Zhejiang University);
- 8:15 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); Yimin Yang (Tsinghua University); Longxiang Linghu (South China Sea Institute of Oceanology, Chinese Academy of Sciences); Jian Yang (Tsinghua University);

- 8:30 Active and Passive Modeling for the Low-frequency Satellite Observations of the Perennial Firn Aquifer
Haokui Xu (Beijing University of Technology);
- 8:45 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);
- 9:00 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);
- 9:15 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);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 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);
- 11:00 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);
- 11:15 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);

Session 2A16
Light-matter Interaction in Micro- and Nanostructures 1

Wednesday AM, July 29, 2026

Room 16 - CR 20

Organized by Feng Li, Xiaoqing Zhou

Chaired by Feng Li

- 8:00 Manipulating the Ultrafast Dynamics of Exciton Polaronic Condensates in Halide Perovskite Microcavities
Keynote Qihua Xiong (Tsinghua University);
- 8:30 Optical Field Control of Meta-atoms with Magneto-electric Coupling
Wenjia Li (Harbin Engineering University);
- 8:45 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));
- 9:00 Band Engineering in Polaritonic Metasurfaces Using a Multimode Framework
Polina A. Pantukhina (Australian National University); D. Smirnova (Australian National University); K. Koshelev (Australian National University);
- 9:15 From Rotation to Dissipation: Stabilizing Localized and Vortex Waves in Cubic Nonlinear Media
Chunyan Li (Xidian University);
- 9:30 Optimizing the Quality Factor of a Dielectric Spherical Particle
Vladimir Dmitrievich Igoshin (ITMO University); Mikhail I. Petrov (ITMO University);
- 9:45 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);
- 10:00 **Coffee Break**

10:30 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 Gromovyyi (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);

10:50 Polaritonic Spectra of Optical Mie Voids

Denis G. Baranov (Moscow Institute of Physics and Technology);

11:05 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);

11:20 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. Cambril (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);

11:40 Collective Effects in Periodic and Aperiodic Plexcitonic Crystals

Andrea Toma (Istituto Italiano di Tecnologia);

11:55 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);

Session 2A17

Chiral Light-matter Interactions in Nonlocal Metasurfaces 1

Wednesday AM, July 29, 2026

Room 17 - CR 25

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

Chaired by Zhanghua Han

8:00 Recent Advances in Chiral Nonlinear Metaphotonics

Keynote

Yuri Kivshar (Australian National University);

8:30 Chiral Collective Oscillations in Photonic Crystal Slab

Invited

Nianyuan Lv (Peking University); Ye Chen (Peking University); Zixuan Zhang (Peking University); Chao Peng (Peking University);

8:50 Opening the Polarization Channel in Nonlinear Chiroptical Scattering

Invited

Ventsislav K. Valev (University of Bath);

9:10 Spin-Momentum-Locked Chiral Emission from Nonlocal Metasurfaces

Invited

Shaojun Wang (Soochow University);

9:30 Chiral Resonators Based on Broadband All-dielectric Handedness Preserving Mirrors: Theory and Experiment

Invited

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);

10:00 **Coffee Break**

10:30 Extending Chiral Metasurface Functionalities in the Momentum Space

Invited

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);

10:50 Chiral Guided-mode Resonances in Partially Etched Metasurfaces with Tailorable Quality Factors and Circular Dichroism

Invited

Zhancheng Li (Nankai University); Shiwang Yu (Nankai University); Yuexin Sun (Nankai University); Shuqi Chen (Nankai University);

- 11:10 Low-symmetry Structures for Chiral Light Management
Invited
Denis G. Baranov (Moscow Institute of Physics and Technology);
- 11:30 Robust Planar Chirality for Versatile Chiral Nonlinear Encoding
Invited
Meng-Xia Hu (Jinan University); Xin Zhang (Jinan University); Pan Li (Jinan University); Xin Li (Jinan University); Xiangping Li (Jinan University); Zi-Lan Deng (Jinan University);
- 11:50 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);

Session 2A18

Recent Developments of Diffractive Optical Sensors Using Machine Learning 2

Wednesday AM, July 29, 2026

Room 18 - CR 26

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

- 8:00 Recent Progress in Multichannel Diffractive Wavefront Sensing Using Machine Learning
Pavel A. Khorin (Samara National Research University); Svetlana Nikolaevna Khonina (Samara National Research University);
- 8:15 Machine-Learning Techniques for Controlled Hybrid Quantum Systems toward Quantum Information
Invited
Shirong Lin (Great Bay University);
- 8:35 Optical Physical Learning Machines with Multiple Light Scattering Media
Invited
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));
- 8:55 Simulating Finite Resonant Photonic Structures with Varying Parameters Using Spatiotemporal Coupled-mode Theory
Invited
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");

- 9:15 Classifying Optical Skyrmions with Deep Diffractive Neural Networks
Invited
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);
- 9:35 Radiative Decay Tuning of Metasurface Resonances for Improved Optical Sensing
Invited
Stefan A. Maier (Monash University);
- 10:00 **Coffee Break**
- 10:30 Learned Phase Control in Digital Lasers for Reconfigurable Structured Light Generation Using Machine-learning
Yu-Che Wu (National Cheng Kung University); Kuo-Chih Chang (National Cheng Kung University); Shu-Chun Chu (National Cheng Kung University);
- 10:45 Decomposition of Optical Vortices under Tight Focusing Conditions
Invited
Sergey S. Stafeev (NRC "Kurchatov Institute"); Victor V. Kotlyar (NRC "Kurchatov Institute");
- 11:05 Combining High-resolution Silicon Nanofabrication with Inverse Design for High-performance Silicon Nanophotonics
Invited
Soren Stobbe (Technical University of Denmark);
- 11:25 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);
- 11:40 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);
- 11:55 Topologically Robust Communication and Intelligent Sensing
Yijie Shen (Nanyang Technological University);

Session 2A19

Non-Hermitian Photonics 1

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

- 8:00 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);
- 8:20 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);
- 8:35 Chirality and Nonlinearity in Complex Nanophotonic
Keynote Systems
Masaya Notomi (NTT Corporation);
- 9:05 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));
- 9:20 Non-Hermitian Thermal Coupling Sensor
Invited
Qiang-Kai-Lai Huang (Zhejiang University); Yanxiang Wang (Zhejiang University); Ying Li (Zhejiang University);
- 9:40 Symmetry Breaking Effects on Bound States in the Continuum
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);
- 9:55 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));
- 10:10 **Coffee Break**
- 10:30 Higher-order Skin Effects and Defect Topology in Non-Hermitian Electrical Circuits
Invited
Shuo Liu (Southeast University); Shaojie Ma (Fudan University); Ce Shang (Aerospace Information Research Institute, Chinese Academy of Sciences); Tie Jun Cui (Southeast University);
- 10:50 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);
- 11:10 Temporal Coupled Mode Theory for Isolated Resonances
Invited in Dielectric Metasurfaces
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);
- 11:30 Symmetry-protected Control of Liouvillian Topological
Invited Phases via Hamiltonian Band Topology
Linhu Li (Quantum Science Center of Guangdong-Hong Kong-Macao Greater Bay Area (Guangdong));
- 11:50 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 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 Changgui Lin
-
- 8:00 Mechanoluminescent Optical Fibers: Enabling Self-powered, Distributed, and Vision-based Sensing for Adaptive Opto-Mechanical Platforms
Invited
Jiulin Gan (South China University of Technology);
- 8:20 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); Shirun Dai (Ningbo University);
- 9:00 Flexible Magnetically Actuated Fiberbot for Minimally Invasive Therapeutic Interventions
Invited
Jingjing Guo (Beihang University); Xiaoyan Guo (Beihang University);
- 9:20 Strain-mediated Self-morphing Multimaterial Polymer Optical Fibers for Wearable Sensing
Invited
Kaiwei Li (Jilin University);
- 10:00 **Coffee Break**

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|-------|--|---|---|
| 10:30 | Metafiber: A Compact Platform for Sensing and Communication | 5 | Cascaded Metasurface-based High-channel Dynamic Holographic Display via Convolutional Multiplexing |
| | <i>Tingbiao Guo (Zhejiang University);</i> | | <i>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);</i> |
| 10:50 | Bioinspired Flexible Multidimensional Optical Sensors Based on Meta-integrated InGaAs Photodetectors | | |
| | <i>Yuting Ye (Westlake University); Jieren Song (Zhejiang University); Yingjie Tang (Westlake University); Hui Ma (Zhejiang University); Qingyan Deng (Westlake University); Lan Li (Westlake University);</i> | | |
| 11:05 | Insect-inspired Micro-optical Antenna Enables Ultrasensitive Multisensory Perception | | |
| | <i>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);</i> | 6 | MEMS Programmable Terahertz Metadevice for Frequency-parallel Multi-gate Opto-logic |
| | | | <i>Jiahao Li (Sichuan University); Yu-Sheng Lin (Aerospace Information Technology University);</i> |
| 11:20 | Hierarchically Microstructured Dielectric Liquid Crystal Colloid Elastomers with Low-voltage Actuation and Programmable Deformation | 7 | Analysis of the Angular Sensitivity of Metasurface Holographic Displays |
| | <i>Xin Shen (Zhejiang University); Qi Zhao (Westlake University); Jiu-An Lv (Westlake University);</i> | | <i>Yinglun Xu (Huazhong University of Science and Technology); Long Yue (Huazhong University of Science and Technology); Fan Sun (Huazhong University of Science</i> |

Session 2A22a

Poster Session for Best Student Presentation Awards Competition - Part 3

Wednesday AM, July 29, 2026

Poster Area

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|---|---|----|--|
| 1 | Hybrid Time-domain Simulation of Electron-RF Interactions and Mode Competition in Gyrotrons
<i>Hongbin Kim (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);</i> | | (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); |
| 2 | Fast 3D Magnetotelluric Forward Modeling with Hierarchical Spectral Elements
<i>Xu Han (Central South University); Kejia Pan (Central South University);</i> | 9 | Observation of Polarized Radiation in Gyromagnetic Zero-index Media
<i>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);</i> |
| 3 | Quantization of Non-Hermitian Electromagnetic Systems from the Geometry of the Maxwell Operator
<i>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);</i> | | |
| 4 | Broadband and High-efficiency Generation of Non-diffracting Airy and Bessel Beam via All-dielectric Metasurface
<i>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);</i> | 10 | Compact All-dielectric Bound States in the Continuum Enabled by Transformation Optics
<i>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);</i> |

- 11 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);
- 12 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));
- 13 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);
- 14 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);
- 15 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);
- 16 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);
- 17 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);
- 18 A Cognitive GPS-Synchronized Ionospheric Sounder 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); Wen-Yen Chang (National Dong Hua University);
- 19 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);
- 20 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.);
- 21 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);
- 22 Feature Extraction of Pharyngeal Motion Sounds Using a Throat Microphone
Miho Sakai (Prefectural University of Hiroshima); Hisako Orimoto (Prefectural University of Hiroshima);
- 23 High-frequency Water Level Variations in the Upper Yellow River Using GNSS-IR Technology
Tao Zhang (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);

- 24 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);
- 25 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);
- 26 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);
- 27 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);
- 28 A Dual Knowledge Base-driven Question Answering System for Automotive EMC
Jian Pan (Chongqing University); Feng Gao (Chongqing University);
- 29 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);
- 30 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);
- 31 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);
- 32 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);
- 33 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); Haiwen Cai (Fudan University); Nan Chi (Fudan University);
- 34 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);
- 35 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);
- 36 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);
- 37 Improved Ice Cloud Retrievals Using a Mixed Super-ellipsoidal Model Constrained by Polarized Radiance
Yizhen Meng (Zhejiang University); Lei Bi (Zhejiang University);
- 38 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);
- 39 Ultra Robust Multi-bound States in the Continuum Metasurfaces for Generating Complex Quantum States
Zirui Guo (Yanshan University); Jianmei Li (Yanshan University);

- 40 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); Shuai Zhang (Aalborg University);
- 41 Omni-MetaLab: A Physics-aware Autonomous Agent for Robust Metasurface Inverse Design
Peng Yang (Westlake University); Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);
- 42 Kinetics of Photochromic Response in Nanostructured Tungsten Trioxide
Olga A. Lutikova (Dukhov Automatics Research Institute (VNIIA)); Daria P. Kulikova (Dukhov Automatics Research Institute (VNIIA)); M. E. Dokukin (Dukhov Automatics Research Institute (VNIIA)); Alexander V. Baryshev (Dukhov Automatics Research Institute (VNIIA));
- 43 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); Peixuan Zhu (Zhejiang University); Rongrong Zhu (Zhejiang University City College); Xin Wei (Zhejiang University); Min Huang (National University of Defense Technology); Bin Zheng (Zhejiang University);
- 44 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);
- 45 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));
- 46 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);
- 49 New Approach to S-parameter Calibration in VNA Measurements: Postprocessing Methods for Statistically Significant Data
Loïc Pouzenc (Université de Toulouse, CNRS); Alexandre Rumeau (Université de Toulouse, CNRS); Damien Saignon (Université de Toulouse, CNRS); Mohammed Zaknoune (IEMN, Institut d'Electronique de Microélectronique et de Nanotechnologie); Jean Guy Tartarin (Université de Toulouse, CNRS);
- 51 Phase Synchronization of Non-cooperative Bistatic Radar Based on FPGA
Long Chen (National University of Defense Technology); Xuesong Wang (National University of Defense Technology); Jian Chen (National University of Defense Technology); Qinglong Bao (National University of Defense Technology);
- 52 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); Qiangming Cai (Southwest University of Science and Technology); Longjian Zhou (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);
- 53 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);
- 54 Polarization-insensitive Edge Coupler on a 500nm SOI Platform
Kaixiang Zhang (University of Shanghai for Science and Technology); Muhammad Shemyal Nisar (University of Shanghai for Science and Technology (USST));
- 55 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);
- 56 A Stokes Reception Approach for Underwater Visible Light Communication
Yuhan Hu (Fudan University); Zhiwu Chen (Fudan University); Zhilan Lu (Fudan University); Zhe Feng (Fudan University); Yunkai Wang (Fudan University); Ruizhe Jin (Fudan University); Zengyi Xu (Fudan University); Zhuoran Hu (Fudan University); Nan Chi (Fudan University);

Session 2A22b
Poster Session 4

Wednesday AM, July 29, 2026
9:00 AM - 12:00 AM
Poster Area

- 57 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);
- 58 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);
- 59 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);
- 60 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);
- 61 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);
- 62 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);
- 63 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);
- 64 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);
- 65 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);
- 66 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); Yang Bai (National Key Laboratory of Scattering and Radiation);
- 67 High Absorption by Good Conductors under Grazing Incidence
Guangfu Chen (Soochow University); Yuxuan Liu (Soochow University); Jie Luo (Soochow University);
- 68 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);

- 69 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);
- 70 Helicity Sensitive Terahertz Detection in Monolayer 1T'-WTe₂
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);
- 71 Fluid-assisted Tunable Metasurface Metalens for Adaptive Optical Wireless Communication
Noreen Raheem (Information Technology University of the Punjab (ITU)); Nasir Mahmood (Suzhou City University);
- 72 Excitation of Unidirectionally Coupled and Unidirectionally Guided Resonant Modes in Microcavity with Dye-doped Cholesteric
Mikhail Nikolaevich Krakhalev (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Pavel Sergeevich Pankin (Siberian Federal University); Vitaly Sergeevich Sutormin (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); Daniil S. Buzin (Kirensky Institute of Physics, Federal Research Center KSC SB RAS); 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 (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);
- 73 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);
- 74 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);
- 75 Electro-optically Co-modulated β -Ga₂O₃ 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);
- 76 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);
- 77 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);
- 78 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 Jakarta Campus); 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);
- 79 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);

- 80 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);

Session 2P1

Remote Sensing of the Earth: From Models to Applications

Wednesday PM, July 29, 2026

Room 1 - CR 1

Organized by Ferdinando Nunziata, Weizeng Shao

Chaired by Ferdinando Nunziata

- 13:00 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);
- 13:15 Characteristics of Wave Passing Sub-mesoscale Eddy Observed by Gaofen-3 Image
Jiale Chen (Shanghai Ocean University); Yuyi Hu (Shanghai Ocean University);
- 13:30 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);
- 13:45 Ocean Perspective Detection Based on Multi-sensor Coordinated Aerial Remote Sensing
Xiaofeng Yang (Nanjing University);
- 14:00 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);
- 14:03 Mitigation of Quasi-periodic Spectral Ripple in Microwave Hyperspectral Radiometers: 53–55 GHz O₂ 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);

- 14:18 Structural Feature Fusion via Adaptive Reparameterization: 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));

- 14:21 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);

- 14:36 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);

- 14:51 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));

15:30 Coffee Break

- 16:00 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);

- 16:15 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);

- 16:30 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*);
- 16:45 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 Centre for Space Weather), China Meteorological Administration*); Hao Wang (*Shanghai Spaceflight Institute of TT&C and Telecommunication*);
- 17:00 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*); Yuzi-ang 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*);
- 17:15 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*);
- 13:00 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*);
- 13:15 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*);
- 13:30 Water-content-guided Physics-informed Neural Network for Robust Magnetic Resonance Electrical Properties Tomography
Jijun Han (*Anhui Medical University*);
- 13:45 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*);
- 14:00 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*);
- 14:15 Magnetic Resonance Electrical Properties Tomography: Invited Current Limits and Future Prospects
Donghyun Kim (*Yonsei University*);
- 14:35 Coaxial Dipole Transceiver Arrays for MRI of Human Invited Brain and C-spine at 9.4 T
Georgiy Solomakha (*MPI for Biological Cybernetics*);
- 14:55 Accessible T2 Map Reconstruction Using Pulseseq Sequences and KomaMRI-simulated Dictionaries
Zilya Badrieva (*ITMO University*); Ekaterina Brui (*ITMO University*);
- 15:10 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*);

Session 2P2

Electromagnetics for Magnetic Resonance Imaging

Wednesday PM, July 29, 2026

Room 2 - CR 2

Organized by Stanislav B. Glybovski, Xiaotong Zhang

Chaired by Anna A. Hurshkainen, Georgiy A. Solomakha

15:30 **Coffee Break**

16:00 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);

16:15 An Open Multi-channel RF-coil Based on a Sectorized Birdcage Approach for 3-Tesla MRI

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);

16:35 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. Glybovski (ITMO University);

16:50 Load-insensitive Wireless RF Coil for Dedicated Breast MRI

Pavel M. Tikhonov (ITMO University); Alexander D. Fedotov (ITMO University); Anna Aleksandrovna Hurshkainen (ITMO University);

16:53 Active Electromagnetic Interference Sensing and Elimination for Shielding-free MRI

Ed Xuekui Wu (The University of Hong Kong); Yujiao Zhao (The University of Hong Kong);

17:23 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);

17:38 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);

Session 2P3a
On-chip Spectrometer

Wednesday PM, July 29, 2026

Room 3 - CR 3

Organized by Lei Zhang, Qin Chen

Chaired by Lei Zhang, Qin Chen

13:00 Ultra-compact, Low Crosstalk Silicon Photonic Devices

Invited

Ciyuan Qiu (Shanghai Jiao Tong University);

13:20 NIR Single-pixel On-chip Spectroscopy Based on Optomechanronic Integration

Invited

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);

13:40 Mid-infrared Silicon Photonic Devices for Spectroscopic Sensing

Invited

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);

14:00 Resolution and Robustness Bounds for Reconstructive Spectrometers

Invited

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);

14:20 Computational Microspectrometer Based on Amorphous Silicon Metasurfaces

Invited

Shaonan Zheng (Shanghai University);

14:40 High-performance Resonator-based On-chip Spectrometer

Invited

Boshu Sun (Westlake University); Kangjian Bao (Westlake University); Qingyan Deng (Westlake University); Xu Yang (Westlake University); Zequn Chen (Westlake University); Lan Li (Westlake University);

15:00 Silicon Photonics for Spectral Sampling and Reconstruction

Invited

Ang Li (Nanjing University of Aeronautics and Astronautics);

15:20 In Situ Spectral Reconstruction Based on a Memristor Chip for Energy-efficient Computational Spectrometry

Invited

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);

15:40 **Coffee Break**

Session 2P3b
Biomedical Photonics

Wednesday PM, July 29, 2026

Room 3 - CR 3

Organized by Ming Lei, Peng Gao

Chaired by Peng Gao

- 16:00 Quantitative Phase Microscopy and Phase Correlation Spectroscopy for Biology
Peng Gao (Xidian University);
- 16:15 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);
- 16:30 Nearest Paired Cloud: Resolution-matched Fast Drift Correction for Single-molecule Localization Microscopy
Leiting Pan (Nankai University);
- 16:45 Biogenesis of Migrasome
Yuwei Huang (Xi'an Jiaotong University);
- 17:00 Studying Neural Basics during Naturalistic Behaviours Using Two-photon Microscopy
Shouwen Ma (Max Planck Institute for Biological Intelligence); Falk Dittrich (Max Planck Institute for Biological Intelligence); Manfred Gahr (Max Planck Institute for Biological Intelligence);
- 17:15 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);
- 17:30 Light-matter Interactions at Interfaces: From Radiation Control to Nanoscale Bio-photonics
Xiaolan Zhong (Beihang University);
- 17:45 Circular Scanning Fluorescence Correlation Spectroscopy (CS-FCS) for Probing Molecular Dynamics of Sparse or Heterogeneous Samples
Lan Yu (Xi'an Jiaotong 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);
- 18:00 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 6

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

Chaired by Olivier J. F. Martin, Xiaohao Xu

- 13:00 Trapping and Rotating of Microparticles Using Freely Shaped Digital Lenses
Invited *Yansheng Liang (Xi'an Jiaotong University); Tianyu Zhao (Xi'an Jiaotong University); Shaowei Wang (Xi'an Jiaotong University); Ming Lei (Xi'an Jiaotong University);*
- 13:20 Orbital Recoil Torque via Optical Vortex Stimulated Emission
Invited *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);*
- 13:40 Optomechanical Metamaterials and Optobots
Muamer Kadic (University Bourgogne Franche-Comte);
- 13:55 Optically-driven Nano-motor Designed by Generative Artificial Intelligence
Invited *Olivier J. F. Martin (Swiss Federal Institute of Technology Lausanne (EPFL));*
- 14:15 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);
- 14:30 Nanodrone Driven by Symmetry-selective Light Recoil
Invited *Jack Ng (Southern University of Science and Technology);*
- 14:50 Optothermal Ice-Water Interface Management for Cross-scale Enrichment and Molecular Sensing
Invited *Jiajie Chen (Shenzhen University); Yonghong Shao (Shenzhen University); Junle Qu (Shenzhen University);*
- 15:10 Dielectrophoresis as a Quasi-static Electromagnetic Force: From Classical Theory to Cellular Applications
Invited *Ronald Pethig (The University of Edinburgh);*
- 15:30 **Coffee Break**

Session 2P4b

Numerical Methods in Analysis and Design of Metasurfaces

Wednesday PM, July 29, 2026

Room 4 - CR 6

Organized by Jun Wei Wu, Mengmeng Li

Chaired by Jun Wei Wu, Mengmeng Li

- 16:00 Integral Equations for the Electromagnetic Modelling of
Invited Geometrically Complex Multi-scale Problems
Francesca Vipiana (Politecnico di Torino);
- 16:20 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); Jihong Gu (Nanjing University of Science and Technology); Dazhi Ding (Nanjing University of Science and Technology);
- 16:35 Electromagnetic Sensing and Manipulation Based on In-
formation Metasurface
Junyan Dai (Southeast University);
- 16:50 Analyzing Periodic Arrays Mounted on Platform Using
Fast Model Order Reduction Method
Hanru Shao (University of Electronic Science and Technology of China (UESTC));
- 17:05 A Parallel Algorithm for High-order Bodies of Revolu-
tion 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);
- 17:20 Distributed Space-time-coding Metasurfaces for Posi-
tional Information Modulation
Hui Xu (Southeast University); Junwei Wu (Southeast University); Tie Jun Cui (Southeast University);
- 17:35 Compact Three-stage Equal-split Ultra-wideband Dif-
ferential Power Divider Based on Polyimide Supported
Bridges
Haoxiang 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);
- 17:50 Spatial DoF Identification via Dual-sided Hadamard
Projections with Programmable Metasurfaces
Xuan Jing Li (Southeast University); Junwei Wu (South-east University);
- 18:05 Array Optimization of Metasurface Antennas
Junwei Wu (Southeast University);

Session 2P5a

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

Wednesday PM, July 29, 2026

Room 5 - CR 7

Organized by Chang Ding, Shanzhe Wang

Chaired by Chang Ding, Shanzhe Wang

- 13:00 A Miniaturized and No-PRS RC Antenna with Sidelobe
Suppression
Deke Huang (Shenzhen University); Siyao Xu (Shen-zhen University); Mingxuan Liang (Shenzhen Univer-sity); Qingyi Guo (City University of Hong Kong);
- 13:15 Metasurfaces Intelligent Control Architectures Research
Ruichao Zhu (Air Force Engineering University);
- 13:30 A Novel CP-LP Reconfigurable Antenna Using Phase
Changing Material
Siyao Xu (Shenzhen University); Runcong Lv (Shenzhen University); Qingyi Guo (Shenzhen University);
- 13:45 Low-profile Ku-band Dual-polarized Phased Array An-
tenna with Wide-angle Scanning Capability
Shuai Li (National University of Defense Technology); Weiwei Wu (National University of Defense Technol-ogy); Shaozhi Wang (National University of Defense Technology); Jingjian Huang (National University of De-fense Technology); Shixian Li (National University of Defense Technology);
- 14:00 A High-precision DOA Estimation Method Based on 2-
bit Metasurfaces
Lin Qin (National University of Defense Technology); Shaozhi Wang (National University of Defense Tech-nology); Weiwei Wu (National University of Defense Technology); Shuai Li (National University of Defense Technology); Kaibo Cui (National University of Defense Technology);
- 14:15 High-gain Wide-angle Frequency Scanning Antenna
Invited Based on SSPP
Yunqi Zhang (Xi'an University of Posts & Telecommu-nications); Jichao Yang (Xi'an University of Posts and Telecommunications); Kechen Xi (Xi'an University of Posts and Telecommunications); Jianxiao Wang (Na-tional 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);
- 14:35 Group Theory in Vortex Light-matter Interactions
Jie Yang (Airforce Engineering University); Jiafu Wang (Air Force Engineering University); Xuezhi Zheng (Nan-jing University of Aeronautics and Astronautics);
- 15:30 **Coffee Break**

Session 2P5b
RF Circuit & Wireless Systems Based on Smart Designs

Wednesday PM, July 29, 2026
Room 5 - CR 7

Organized by Zhinong Ying, Hui Liu

 Chaired by Hui Liu

- 16:00 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);
- 16:03 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);
- 16:06 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);
- 16:09 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 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 Bandwidth Enhancement and Harmonic Suppression in a 2.45 GHz IoT Antenna Using a Targeted Defected Ground Structure
Muhammad Ahmed (University of Engineering and Technology (UET));

Session 2P6a
High Power Microwaves: Sources and Applications 3

Wednesday PM, July 29, 2026
Room 6 - CR 9

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

 Chaired by Nikolai Yu. Peskov, Wenjie Fu

- 13:00 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);
- 13:15 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 (Kotelnikov Institute of Radioengineering and Electronics RAS); Valeriy V. Emelyanov (Kotelnikov Institute of Radioengineering and Electronics RAS); Igor A. Navrotsky (Fundamental Research Laboratory, RPE "Almaz"); Nikita Mikhailovich Ryskin (V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS);
- 13:30 A Truncated-domain Design Framework for Magnetic Cusp Guns Based on Effective Potential Theory
Runfeng Tang (Huazhong University of Science and Technology); Houxiu Xiao (Huazhong University of Science and Technology); Xianfei Chen (Huazhong University of Science and Technology);

- 13:45 **Optical Semiconductor Switch for Generating Super-powerful 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);
- 14:00 **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);
- 14:15 **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);
- 14:30 **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);
- 14:45 **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 **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);
- 15:30 **Coffee Break**

Session 2P6b

Microwave, mmWave, and sub-Terahertz Integrated Circuits

Wednesday PM, July 29, 2026

Room 6 - CR 9

Organized by Xuyang Lu, Peigen Zhou

Chaired by Si-Yuan Tang

- 16:00 **Exploiting New Degrees of Freedom: Unlocking Next-gen Sensing & Communication Modalities**
Invited Jingzhi Zhang (University of Electronic Science and Technology of China);
- 16:20 **Area- and Power-efficient CMOS Bi-directional Front-end for B5G Phased-arrays**
Invited Pang Jian (Shanghai Jiaotong University);
- 16:40 **Design of High-performance Terahertz On-chip Antennas**
Si-Yuan Tang (City University of Hong Kong); Peigen Zhou (Southeast University); Jixin Chen (South-east University); Hang Wong (City University of Hong Kong);

- 16:55 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);
- 16:58 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);
- 17:13 An 11.45-to-37.84 GHz Quad-core Quad-mode VCO Using Magnetically Coupled Resonators
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);
- 17:28 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);
- 13:06 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. Stepikhova (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);
- 13:09 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);
- 13:12 Transmissive Pancharatnam-Berry Phase Metasurface for Circularly Polarized Beam Steering and RCS Reduction for 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);
- 13:15 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);
- 13:18 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);
- 13:21 Broadband Convolutional Processing Using Nonlinear Photoresponse in Transition Metal Dichalcogenides
Yingshan Ma (Beijing Institute of Technology); Yunyun Dai (Beijing Institute of Technology);

Session 2P7a

Short-Oral Presentations for Best Student Presentation Awards Competition - Part 4

Wednesday PM, July 29, 2026

Room 7 - CR 10

Chaired by Saibun Tjuatja, Mihail I. Petrov, Tae-Dong Kim, Xudong Chen, Hongsheng Chen

- 13:00 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);
- 13:03 Dual-wavelength Metalens Design for Compact LWIR and MWIR Imaging Systems
Ting Liu (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);

- 13:24 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);
- 13:27 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);
- 13:30 kHz-Rate Optical Chopping of a MEMS Infrared Heater for Enhanced Photoacoustic Detection
Zeru Wang (Tianjin University); Yujie Wei (Tianjin University); Hao Zhang (Tianjin University); Weiwei Cui (Tianjin University);
- 13:33 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);
- 13:36 Improving Stability of Inverted Perovskite Solar Cells without Cathode Interlayer via Doped PC₆₁BM by N-DMBI
Jialin Yang (Jilin University); Zilong Bing (Jilin University); Jingsong Huang (University of Oxford); Fenghong Li (Jilin University);
- 13:39 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);
- 13:42 Dual-band Bezel-integrated Antenna with Wide Beamwidth for Low-orbit Satellite-to-Handset Communication
Jiarui Liu (Tsinghua University); Yue Li (Tsinghua University);
- 13:45 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);
- 13:48 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);
- 13:51 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);
- 13:54 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);
- 13:57 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); Yuhao Li (Beijing Institute of Technology); Tian Lan (Beijing Institute of Technology);
- 14:00 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);
- 14:03 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);
- 14:06 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);

- 14:09 A General and Efficient Non-linear Estimation Method in Temporal Phase Unwrapping for PS-InSAR
Junjun Gao (Northwestern Polytechnical University); Yuzhao Qin (Northwestern Polytechnical University);
- 14:12 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);
- 14:15 Differentiable-response-guided Deep Learning Inversion for Azimuthal Electromagnetic Logging While Drilling
Shuo Wang (Hefei University of Technology); Rencheng Song (Hefei University of Technology);
- 14:18 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);
- 14:21 Deep-learning-enhanced Transcranial Microwave-induced Thermoacoustic Imaging of Millimeter-scale Metallic Targets
Yunxiao Zhao (ShanghaiTech University); Xiong Wang (ShanghaiTech University);
- 14:24 Improvement of Phased Antenna Array Applied in Transcranial Focused Microwave Hyperthermia
Zijun Xi (ShanghaiTech University); Xiong Wang (ShanghaiTech University);
- 14:27 Magnet Configurations in m-shaped Variable Reluctance Energy Harvesters
Mengfei Wu (Mid Sweden University); Ye Xu (Mid Sweden University); Bengt Oelmann (Mid Sweden University); Sebastian Bader (Mid Sweden University);
- 14:30 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);
- 14:33 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);
- 14:36 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);
- 14:39 A Modal-based Multi-scatterer Propagation Model for Localized Radiomap Reconstruction
Wenli Li (Shenzhen Research Institute of Big Data); Guangxu Zhu (Shenzhen Research Institute of Big Data); Bin Wang (Shenzhen Research Institute of Big Data); Yi Zhang (Shenzhen Research Institute of Big Data);
- 14:42 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);
- 14:45 TCAD Simulation on Optoelectronic Properties of AlN-based VUV Photodetectors
Yang Zhang (Fudan University); Pengsheng Min (Fudan University); Y. Z. Zhang (Fudan University); F. T. Zeng (Fudan University); S. J. Li (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); G. Q. Zhang (Delft University of Technology); Hongyu Tang (Fudan University);
- 14:48 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);
- 14:51 Specific Emitter Identification Method for Variable Symbol Rate Communications
Hui Liu (National University of Defense Technology); Dengri Wang (National University of Defense Technology);
- 14:54 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);
- 14:57 Q-modulated Nanophotonic Refractometric Sensing
Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);
- 15:00 Tailoring Multidimensional Speckle via Physics-informed Learning
Ze-Huan Zheng (Xiamen University); Jinhui Chen (Xiamen University);

- 15:03 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);
- 15:06 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);
- 15:09 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);
- 15:12 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);
- 15:15 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); Tian-Ming Li (University of Electronic Science and Technology of China);
- 15:18 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);

- 15:21 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 Ibnyaich (Cadi Ayyad University); Abdelouhab Zeroual (Cadi Ayyad University);

15:24 **Coffee Break**

Session 2P7b

Advances of Numerical Methods and Techniques in Computational Electromagnetics

Wednesday PM, July 29, 2026

Room 7 - CR 10

Organized by Mei Song Tong, Li Zhang

Chaired by Chunxia Yang

- 16:00 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);
- 16:15 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);
- 16:30 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);
- 16:45 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);
- 17:00 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);
- 17:15 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);

- 17:30 A Unified SOC-TTE Framework for Smartphone Battery Life Prediction with Power-temperature Mapping
Kaiqi Yang (Shanghai University of Engineering Science); Shu Jia Yan (Shanghai University of Engineering Science); Xinbo Liu (704th Research Institute, China Shipbuilding Industry Corporation); Mingyue Cao (Shanghai University of Engineering Science); Xuetong Yan (Shanghai University of Engineering Science);
- 17:45 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); Kaiqi Yang (Shanghai University of Engineering Science); Hua Ding (High School Affiliated to Nanjing Normal University Suqian Campus);
- 18:00 PAR-SCD-RAU: A Residual-driven Network for Electromagnetic Inverse Scattering
Hao Ming Lv (Shanghai Normal University); Chunxia Yang (Shanghai Normal University); Mei Song Tong (Tongji University);

Session 2P8

Multifunctional Metasurfaces: Fundamentals and Applications 2

Wednesday PM, July 29, 2026

Room 8 - CR 11

Organized by Jingcheng Zhang, Tianyue Li

Chaired by Jingcheng Zhang, Tianyue Li

- 13:00 Deep Learning Empowered Multidimensional Infrared Upconversion Detections
 Invited *Jinhui Chen (Xiamen University);*
- 13:20 Quantum Metasurfaces for Advanced Photon Sources
 Invited *Fei Ding (Eastern Institute of Technology);*
- 13:40 Nonlocal Meta-lens for High-Q Wavefront Shaping
 Invited *Jin Yao (City University of Hong Kong); Din Ping Tsai (City University of Hong Kong);*
- 14:00 Chip-integrated Metasurface for Multidimensional Light-field Imaging
 Invited *Boyan Fu (The University of Hong Kong); Shu-Ming Wang (Nanjing University); Xun Cao (Nanjing University); Shi-Ning Zhu (Nanjing University);*
- 14:20 High-resolution Wavefront Sensing with Flat Optics
 Invited *Yunhui Gao (Tsinghua University); Liangcai Cao (Tsinghua University); Din Ping Tsai (City University of Hong Kong);*
- 14:40 Broadband Nonlinear Optical Devices on Geometric Designed LNOI Chips
 Invited *Chunyu Huang (Nanjing University of Aeronautics and Astronautics); Yu Luo (Nanjing University of Aeronautics and Astronautics); Hui Liu (Nanjing University);*

15:30 Coffee Break

- 16:00 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);
- 16:15 Metalens-enabled Twisted Chromatic Dispersion
Shiyu Zheng (Nanjing University); Boyan Fu (The University of Hong Kong); Hong Zhang (Nanjing University); Shu-Ming Wang (Nanjing University);
- 16:30 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);
- 16:45 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); Wencan Peng (Xi'an Branch, China Academy of Space Technology); Xiaoyan Pang (Northwestern Polytechnical University);
- 16:48 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);
- 00:00 Meta-devices for Photonic and Quantum Applications
 Keynote *Din Ping Tsai (City University of Hong Kong);*
- 00:00 Direct Imprinting of Geometric Phase on Linear Polarization in Metasurfaces with Engineered Exceptional Points
 Invited *Yaoguang Ma (Zhejiang University);*

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

13:00 Wave Control and Applications of Metamaterial
Invited Acoustofluidic Chips

Xianchen Xu (Beijing Institution of Technology (Zhuhai));

13:20 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);

13:40 Acoustic Metamaterials Design for Aircraft Noise Re-
Invited duction

Jie Zhou (Northwestern Polytechnical University); Han-jie Yang (Northwestern Polytechnical University); Xiaoxiao Xu (Northwestern Polytechnical University);

14:00 Inverse Design of a Metamaterial-based Spinal Fixation
Invited System for Optimized Stability and Osseointegration

Hui Chen (Ningbo University);

14:20 Research on the Snapping Shrimp Sounds and Extension
Invited to Bioinspired Design

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

14:40 An AutoML-powered Automated Framework for Inverse
Invited Design of Metamaterial Plates with Targeted Vibration Reduction

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

15:30 **Coffee Break**

16:00 Acoustic Metamaterials for Noise Control: From Funda-
Invited mental to Application

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);

16:20 Research on Low-frequency Broadband Sound Absorp-
Invited tion Metamaterials and Their Engineering Applications

Chongrui Liu (Xi'an Jiaotong University);

16:40 Enhanced Energy Absorption in Honeycombs via Negative Local Resonance Plates

Jing Rao (Beihang University); Yao Huang (Beihang University);

16:55 Broadband Acoustic Topological Metamaterial Based on

Invited Fano Resonance

Changlin Ding (Northwestern Polytechnical University);

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

13:00 Nanoscale 3D Printing of Photonic Elements

Keynote

Joel K. W. Yang (Singapore University of Technology and Design);

13:30 Polarization-multiplexed Metasensing via Anisotropic
Invited Nanostructures: From Polarization Imaging to Integrated Optoelectronic Devices

Jingxuan Wei (University of Electronic Science and Technology of China);

13:50 Controlling Lanthanide Optical Dynamics for Advanced
Invited X-ray Detection

Yiming Wu (Xiamen University);

14:10 Physics-inspired Design of Meta-devices

Invited

Lei Jin (Hangzhou Dianzi University);

14:30 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);*

14:45 Nanostructure Lattices and Their Nanophotonic Devices
Invited

Shikai Deng (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences);

15:05 Long-range Optical Interactions with Structured
Invited Nanoscale Materials

Danqing Wang (Fudan University);

15:30 **Coffee Break**

16:00 Tracking Cancer Progression and Treatment Response
Invited by Machine Learning-enhanced Metasurface Profiling of Extracellular Vesicles

Fajun Li (Xiamen University); Jinfeng Zhu (Xiamen University);

16:20 Metasurface for Quantum Optics

Invited

Lin Li (East China Normal University);

16:40 Atomic-scale Manufacturing for Chemical Sensing

Invited

Bowei Zhang (East China University of Science and Technology);

17:00 Metasurface-enabled Semiconductor Lasers: From On-chip Wavefront Engineering to Mode-controlled External Cavities

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 MEMS Photonic Sensors for Biochemical Detection

Invited

Hong Zhou (Northwestern Polytechnical University);

00:00 Near-field Seeing the Colorful Nano-world

Invited

*Xuezhi Ma (A*STAR);*

Session 2P11a

Advances in Time-varying Metamaterials and Metasurfaces 2

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

13:00 Microwave Luminal Metamaterials Implemented by Spatiotemporally Modulated Travelling Wave Accompanying Lines

Invited

Yuhao Liao (University of Electronic Science and Technology of China); Tanta Fan (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);

13:20 Direct Measurement of Topological Invariants through Temporal Adiabatic Evolution of Bulk States in the Synthetic Brillouin Zone

Zhaorlian 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);

13:35 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);

13:50 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);

14:05 Event Soliton Formation in Mixed Energy-momentum Gaps of Nonlinear Spacetime Crystals

Liang Zhang (ShanghaiTech University); Zhiwei Fan (Newcastle University); Yiming Pan (ShanghaiTech University);

14:20 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);

14:35 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);

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); Jiaji 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);

15:30 **Coffee Break**

Session 2P11b

Metamaterials and Plasmonics for Environmental Science

Wednesday PM, July 29, 2026

Room 11 - CR 15

Organized by Ventsislav K. Valev, Liwu Zhang

Chaired by Ventsislav K. Valev, Xuezhi Zheng

16:00 Photothermal Effects and Thermophotonics for Advanced Plasmonic Printing and Colored Radiative Cooling

Dangyuan Lei (City University of Hongkong);

16:30 Inorganic Nanopillar Arrays Remarkably Enhance Photovoltaic Performance of Perovskite Solar Cells

Zhifeng Huang (The Chinese University of Hong Kong (CUHK));

16:50 Modelling Nonlinear Optical Response of Arbitrary
Invited Clusters of Nanoparticles

Ivan Sekulic (University College London); Nicolae-Coriolan Panoiu (University College London);

17:10 Nanostructured Plasmonically Active Titanium Nitride
Invited 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);

17:30 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);

17:45 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);

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

13:00 Cavity Vacuum Field Control of Mesoscopic Moiré Sys-
Keynotetems

Wang Yao (The University of Hong Kong);

13:30 A Path to Quantum Simulations of Topological Phases:
Invited (2 + 1)D Quantum Electrodynamics with Wilson Fermions

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);

13:50 Cavity Tuning Integer Quantum Hall Effect

Invited

Jie Wang (Peking University);

14:10 Superradiant Strongly Correlated Quantum States in
Invited Cavity Hubbard Model

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);

14:30 Imaging of Hot Electrons in Semiconductor Nanodevices
Invited via Thermal Casimir Effect

Zhenghua An (Fudan University);

14:50 Manipulating Nonlinear Optical Effects in Low-
Invited dimensional Materials

Chong Wang (Tsinghua University);

15:10 Dirac and Weyl Physics with Plasmons

Invited

Dmitry K. Efimkin (Monash University);

15:30 **Coffee Break**

16:00 Coherent Nonlinear Magnon-phonon Dynamics and Re-
Invited lated Cavity Effects in Layered Antiferromagnets

Qi Zhang (Nanjing University);

16:20 The Control of Fabry-Pérot Nanocavities via Casimir
Invited Force in an Electrolyte Solution

Lixin Ge (Xinyang Normal University); Kaipeng Liu (Xinyang Normal University); Shuai Zhou (Xinyang Normal University); Ke Gong (Xinyang Normal University);

16:40 Cavity QED Control of Superconducting States with
Invited Phonon Polaritons

Shuai Zhang (Fudan University);

17:00 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);

17:15 Novel Quantum Fluctuation Effects in Condensed Mat-
Invited ter Systems

Changgan Zeng (University of Science and Technology of China);

17:35 Less is More: The Rise of Vacuumronics

Qing-Dong Jiang (Shanghai Jiao Tong University);

17:50 Engineering Materials Using Driven Cavities

Zhiyuan Sun (Tsinghua University);

Session 2P13a

Quantum Information Theory and Quantum Computing Algorithms

Wednesday PM, July 29, 2026

Room 13 - CR 17

Organized by You Zhou

Chaired by Dayue Qin

- 13:00 Enhancing Classical Simulation with Noisy Quantum Devices
Ruiqi Zhang (Tsinghua University); Fuchuan Wei (Tsinghua University); Zhaohui Wei (Tsinghua University);
- 13:15 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);
- 13:30 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));
- 13:45 Unified Classical Surrogates for Quantum Circuits Beyond Efficient Simulation
Ya-Dong Wu (Shanghai Jiao Tong University);
- 14:00 Non-asymptotic Approximation Error Bounds of Parameterized Quantum Circuits
Zhan Yu (Wuhan University); Qiu hao Chen (Wuhan University); Yuling Jiao (Wuhan University); Yinan Li (Wuhan University); Xiliang Lu (Wuhan University); Xin Wang (Hong Kong University of Science and Technology (Guangzhou)); Jerry Zhijian Yang (Wuhan University);
- 14:15 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);
- 14:30 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);
- 14:45 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);
- 15:30 **Coffee Break**

Session 2P13b
Frontiers at the Nexus of Quantum Computing and Artificial Intelligence

Wednesday PM, July 29, 2026

Room 13 - CR 17

Organized by Yun Shang

Chaired by Yun Shang

- 16:00 Towards Scalable Fault-tolerant Quantum Computing:
Invited Real-time Neural Decoding and System Architecture
Jianxin Chen (Tsinghua University);
- 16:20 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);
- 16:40 DQC1-completeness of Normalized Trace Estimation for Functions of Log-local Hamiltonians
Invited
Zhengfeng Ji (Tsinghua University); Tongyang Li (Peking University); Changpeng Shao (Academy of Mathematics and Systems Science, Chinese Academy of Sciences); Xinzhaoh Wang (Peking University); Yuxin Zhang (Academy of Mathematics and Systems Science, Chinese Academy of Sciences);
- 17:00 Power and Limitations of Distributed Quantum State Purification
Invited
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));
- 17:20 Near-optimal Simultaneous Estimation of Quantum State Moments
Invited
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));
- 17:40 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);

Session 2P14a
Terahertz Photonics 2

Wednesday PM, July 29, 2026

Room 14 - CR 18

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

Chaired by Nikolay V. Petrov, Li Li

- 13:00 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); Hui Yuan (University of Electronic Science and Technology of China); Guopeng Chen (University of Electronic Science and Technology of China); Yanchu Liu (University of Electronic Science and Technology of China);
- 13:15 Terahertz Surface-emitting Photonic Devices for Vortex Beam Generations and Wireless Communications
Invited *Faqian Chong (Zhejiang University); Yulun Wu (Zhejiang University); Song Han (Zhejiang University);*
- 13:35 Self-complementary Plasmonic Metasurfaces for Infrared Photonics
Invited *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);*
- 13:55 Promising Optical and Photonic Applications of Metastable Topological Structures in Chiral Liquid Crystals
Invited *Meline Grigoryan (Yerevan State University); Tatiana Orlova (Yerevan State University);*
- 14:15 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));
- 14:30 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);
- 14:33 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);
- 14:36 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);
- 14:39 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);
- 14:42 Graphene Engineering for THz Applications
Dmitry Krasnikov (Skolkovo Institute of Science and Technology); A. Grebenko (Skolkovo Institute of Science and Technology); R. Salehpour (); K. Malgin (); B. Gorshunov (Moscow Institute of Physics and Technology); Albert G. Nasibulin (Skolkovo Institute of Science and Technology);

14:57 Three-dimensional Wide-bandwidth Quantum Energy
Invited Truncation Terahertz Coherence Tomography
Pengfei Zhu (Laval University); Hai Zhang (Harbin Institute of Technology); Xavier Maldague (Laval University); Andreas Mandelis (University of Toronto);

00:00 Terahertz Waveguides and Manipulation: In-fiber Integrated Optical Devices in the Range of THz
Invited
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
Invited
Feng Lan (University of Electronic Science and Technology of China);

15:30 Coffee Break

Session 2P14b

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

Wednesday PM, July 29, 2026

Room 14 - CR 18

Organized by Abdullah Eroglu

Chaired by Abdullah Eroglu

16:00 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);

16:15 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);

16:30 Ultra-wideband 1-bit Graphene-based RIS Unit Cell for Sub-THz Applications
Son Vu (SUNY Polytechnic Institute); Abdullah Eroglu (SUNY Polytechnic Institute);

16:45 Investigation of THz Cavity Characteristics
K. Kumar (SUNY Polytechnic Institute); K. Ibrahimovic (SUNY Polytechnic Institute); Abdullah Eroglu (SUNY Polytechnic Institute);

17:00 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);

Session 2P15

Advances in Solar-blind Deep Ultraviolet Detectors and Ga₂O₃ Optoelectronic Devices

Wednesday PM, July 29, 2026

Room 15 - CR 19

Organized by Daoyou Guo, Jun Hu

Chaired by Daoyou Guo, Jun Hu

13:00 Luminescent Characteristics of Rare-earth-doped Oxide
Invited Thin Films toward Full-color LED Applications
Qixin Guo (Saga University);

13:20 Insight into Giant External Quantum Efficiency in Ga₂O₃ Schottky Photodiodes
Invited
Xinyi Pei (Nanjing University); Jiandong Ye (Nanjing University); Fang-Fang Ren (Nanjing University);

13:40 Interfacial Barrier Engineering for High-performance Ga₂O₃ Solar-blind Photodetectors
Dianmeng Dong (Beijing University of Posts and Telecommunications); Zhenping Wu (Beijing University of Posts and Telecommunications);

13:55 Defect Engineering and Heterostructure Design of Ultrawide Bandgap Gallium Oxide for High-performance Deep Ultraviolet Photodetectors
Invited
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);

14:15 Advanced Heterogeneous Integration and Multi-physical Field Coupling in Wide-bandgap Semiconductor Optoelectronics
Invited
Jun Hu (Zhejiang University);

14:35 Anisotropic β -Ga₂O₃ Based Direction-evolved Axon-multi-synapse Devices: Fabrication and Applications
Chao Wu (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);

- 14:50 Magnetron Sputtered Ultra-wide Bandgap Semiconductor GeO₂ Films towards 213-nm Solar Blind Photodetection
Invited Xu Wang (Ningbo University); Ziyu Li (Ningbo University); Chen Guo (Ningbo University); Shuxian Zang (Ningbo University); Xingyu Liu (Ningbo University); Yang Chen (Ningbo University);
- 14:53 Robust Polycrystalline Ga₂O₃ 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);
- 15:08 Research on Emerging Self-powered Gallium Oxide Photoelectrochemical Devices and Applications
Kai Chen (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);
- 15:30 **Coffee Break**
- 16:00 Growth Temperature-regulated Phase Transition from α to ε of Metastable Ga₂O₃ Films by Mist Chemical Vapor Phase Deposition
Invited Gaofeng Deng (Ningbo Institute of Materials Technology and Engineering, CAS);
- 16:03 Epitaxial Growth of α -(AlGa)₂O₃ Films for Deep Ultraviolet 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);
- 16:18 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);
- 16:33 In Vitro Antibacterial Effect of Long-term Irradiation with 310nm Ultraviolet Light-emitting Diode on Staphylococcus Aureus
Yuheng Chen (Zhejiang Chinese Medical University); Jian Ye (Zhejiang University School of Medicine);
- 00:00 Recent Process in Ultra-wide Bandgap Semiconductor Gallium Oxide Materials and Devices
Invited Weihua Tang (Nanjing University of Posts and Telecommunications);
- 00:00 Performance Regulation and Applications of GaN-based Heterostructure Ultraviolet Photodetectors
Invited Guofeng Yang (Jiangnan University); Huazhen Sun (Jiangnan University); Xinyi Shan (Jiangnan 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 Solar-blind Enhanced Dual-band Ultraviolet Photodetector Based on Ga₂O₃/(Al_xGa_{1-x})₂O₃/GaN Heterojunction
Yuefei Wang (Northeast Normal University); Bingsheng Li (Northeast Normal University); Yichun Liu (Northeast Normal University);
- 00:00 Fermi-level Pinning-free Two-dimensional Hybrid MXene/ β -Ga₂O₃ 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);

Session 2P16a

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

Wednesday PM, July 29, 2026

Room 16 - CR 20

Organized by Vito Mocella, Ivo Rendina

Chaired by Vito Mocella, Ivo Rendina

- 13:00 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);
- 13:15 Fully Circularly Polarized Ultrabroadband THz Pulses: A New Tool for THz Chiral Optical Spectroscopy
Invited Domenico Paparo (ISASI — Institute of Applied Sciences and Intelligent Systems);

13:35 Light Localization in Correlated Disorder Materials

Invited

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);

13:55 Highly Focused Laser Beams for Investigating Cosmic Dust and Detecting Sea Microplastics

Invited

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. Gucciarri (CNR IPCF, Istituto per i Processi Chimico-Fisici); Onofrio M. Marago (CNR-IPCF, Istituto per i Processi Chimico-Fisici);

14:15 Mid-infrared All-dielectric Metasurfaces for Sensing Applications

Invited

Nunzio Timpanaro Pirrino (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);

14:35 Whispering-gallery Mode Enhanced Chemical Sensing

Invited

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));

14:55 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));

15:10 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);

15:30 Coffee Break

16:00 Ultrafast Charge Transfer in Confined Systems for the Control of Electronic and Quantum Properties

Invited

Davide Boschetto (Institut Polytechnique de Paris);

00:00 Silicon Photonics: Past, Present and Future

Invited

Bahram Jalali (University of California at Los Angeles);

Session 2P16b
Nonlinear and Quantum Optics in an Optical Microcavity

Wednesday PM, July 29, 2026

Room 16 - CR 20

Organized by Wenjie Wan

Chaired by Wenjie Wan

- 16:40 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));
- 16:55 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);
- 17:10 Cavity Optomechanical Frequency Conversion and Coherent Storage
Zhen Shen (University of Science and Technology of China);
- 17:25 Nonlinear Physics and Optics in Asymmetric Microcavities
Qi-Tao Cao (Peking University);
- 17:40 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);
- 17:55 Compact Low-noise Dual Microcombs for High-precision Ranging and Spectroscopy Applications
Zhen-Da Xie (Nanjing University);
- 18:10 Integrated Lithium Niobate/Tantalate Nonlinear Photonic Devices
Juanjuan Lu (Shanghai Tech University);
- 13:50 Compact Sources of Circularly Polarized Light Based on Chiral Photonic Crystal Slabs and Metamembranes
Invited S. G. Tikhodeev (Lomonosov Moscow State University);
- 14:10 Flexible Metasurface Stickers with Nonlocal Coupling
Invited 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);
- 14:30 Chiral Plasmonic Materials with Strong and Dynamically Programmable Chiroptical Responses
Invited Chunhong Ye (ShanghaiTech University);
- 14:50 Terahertz Metasurface by Laser-induced Graphene and Its Chiral Applications
Invited 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);
- 15:10 Classical and Quantum Nonlinear Chirality with Quasi-bound States in the Continuum
Invited Maxim V. Gorkunov (National University of Science and Technology MISiS);
- 15:30 **Coffee Break**
- 16:00 Exploiting Non-Hermitian Metasurfaces to Enhance Chirality Sensing
Invited 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);
- 16:20 Quasi-bound States in the Continuum with Chiral Flatbands for Entangled Photon Generation
Invited Alena V. Mamonova (Shubnikov Institute of Crystallography, NRC "Kurchatov Institute"); Maxim V. Gorkunov (National University of Science and Technology MISiS);
- 16:40 Plasmonically Induced Dichroism in Metal-superconductor Nanowire Detector Arrays for On-chip Quantum State Tomography
Invited 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);
- 17:00 Mueller-matrix Polarimetry as a Universal Tool for Chiral Light-matter Interactions
Invited Minghao Li (University of Basel);
- 17:20 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 2P17

Chiral Light-matter Interactions in Nonlocal Metasurfaces 2

Wednesday PM, July 29, 2026

Room 17 - CR 25

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

Chaired by Yuri Kivshar

- 13:00 Organic Electrochemical Meta-displays
Keynote
Na Liu (University of Stuttgart);
- 13:30 Metalasers with Arbitrary Wave Front
Invited
Qinghai Song (Harbin Institute of Technology);

Session 2P18**Recent Developments of Diffractive Optical Sensors Using Machine Learning 3****Wednesday PM, July 29, 2026****Room 18 - CR 26**

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

13:00 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);

13:20 Deep Learning-driven Diffractive Optics for High-fidelity Extended Depth-of-field Imaging
Invited

Yuzhe Du (Tsinghua University); Liangcai Cao (Tsinghua University);

13:40 Transformation of Confined-space Photonics into Industrial-level Applications
Invited

Qiaoliang Bao (University of Shanghai for Science and Technology);

14:00 Nanoporous Metals as Versatile Optical Metasurfaces
Invited

Denis Garoli (Istituto Italiano di Tecnologia);

14:20 Glass Fiber Microphone for Acoustic Sensing
Invited

Xiaobei Zhang (Shanghai University);

14:40 Forward and Inverse Design of Displacement-sensitive Metasurface for Arbitrary Intensity-displacement Responses
Invited

Qianbo Lu (Northwestern Polytechnical University);

15:00 Computer Holography via an Ultra-generalized Learning Framework
Invited

Hao Zhang (University of Science and Technology Beijing);

15:20 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);

15:30 Coffee Break

16:00 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);

16:20 Cold-programmable Photonic Crystals for Reconfigurable Optical Sensing

Matin S. Ashurov (Westlake University); Pavlos G. Savvidis (Westlake University);

16:35 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);

16:55 Mid-infrared Photodetector Array Integrated with Plasmonic Filters for Multispectral Imaging

Shiyu Yang (Shanghai Jiao Tong University); Yaping Dan (Shanghai Jiao Tong University);

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 AI-Informed Optics at the Diffraction Limit
Invited

Dmitry V. Dylov (Skolkovo Institute of Science and Technology);

00:00 AI-assisted Broadband Imaging with Metasurfaces

Yaoguang Ma (Zhejiang University);

00:00 The Mathematical-physics of Scalar Structured Optical Beams
Invited

Sabino Chavez-Cerda (Instituto Nacional de Astrofisica);

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-tacahryya (IIT Kharagpur); Pooja Lahiri (IIT Kharagpur); Basudev Lahiri (IIT Kharagpur);

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

13:00 Non-Hermitian Theory for Optical Trapping and Binding
Invited

Jack Ng (Southern University of Science and Technology);

13:20 Subspace-protected Topological Phases

Invited

Masatoshi Sato (Kyoto University);

13:40 Non-Hermitian Bimorphic Topological Insulator in a Periodically Driven Photonic System

Shuming Zhang (Zhejiang University); Tuo Wan (Zhejiang University); Zhaoju Yang (Zhejiang University);

13:55 Doubly Excited Bound States in the Continuum in Two-dimensional Atomic Lattices

Ilya A. Volkov (ITMO University); Mihail I. Petrov (ITMO University);

14:10 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);

14:25 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);

14:40 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));

14:55 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);

15:10 Multi-order Exceptional Points and Exponential Sensitivity in Non-Hermitian Photonic Lattices

Invited

Konstantinos G. Makris (Institute of Electronic Structure and Laser — FORTH);

15:30 Asymmetric Third Harmonic Generation in Silicon Metasurfaces

Aleksandr I. Musorin (Shenzhen MSU-BIT University); A. A. Nazarenko (Shenzhen MSU-BIT University); Anna A. Popkova (Lomonosov Moscow State University); Alexander S. Shorokhov (Lomonosov Moscow State University); Andrey A. Fedyanin (Lomonosov Moscow State University);

00:00 Investigating the Topology of Exceptional Points with Photons

Invited

Kunkun Wang (Anhui University);

15:45 **Coffee Break**

Session 2P19b

Topological Nanophotonics 1

Wednesday PM, July 29, 2026

Room 19 - CR 27

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

Chaired by Zhiwei Guo

16:00 Moiré Topological Quasi-particles of Light at Nanoscale

Invited

Lipeng Wan (Nanchang University); Tianbao Yu (Nanchang University);

16:20 All-dielectric Hybrid Photonic Topological Materials

Invited

Tianyue Li (The Hong Kong University of Science and Technology);

16:40 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);

17:00 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);

17:15 Topological Phases in Bilayer Valley Photonic Crystals

Invited

Ze-Yu Wu (Sun Yat-sen University); Xiao-Dong Chen (Sun Yat-sen University);

17:35 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);

17:55 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);

18:10 Colloidal Quantum Dot-based Infrared Detection and Imaging

Ge Mu (Beijing Institute of Technology);

Session 2P20a
Metamaterials in Multi-physics

Wednesday PM, July 29, 2026

Room 20 - CR 28

Organized by Huanyang Chen, Yadong Xu

Chaired by Linkang Han, Zhanlei Hao

- 13:00 Optical Bound States in the Continuum in Metagrating
Songsong Li (Chaohu University); Yadong Xu (Soochow University);
- 13:15 Acoustic Bound States in the Continuum in Engineered Resonators
Yuhang Yin (Shantou University); Qilin Duan (Xiamen University); Huanyang Chen (Xiamen University);
- 13:30 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);
- 13:45 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);
- 14:00 Observation of Incident-OAM-governed Quantized Rotational Doppler Effect
Yu Chen (Soochow University); Yadong Xu (Soochow University);
- 14:15 Topological-charge Multiplexed Metasurfaces for Generating Structural Acoustic Field and Remote Dynamic Control
Jiaqi Quan (Anhui Jianzhu University); Cong Wang (Soochow University); Yadong Xu (Soochow University);
- 14:30 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);
- 14:45 Water Wave Manipulation Devices Based on Metamaterials
Linkang Han (Xiamen University); Huanyang Chen (Xiamen University);

- 15:00 Shot Noise of Photocurrents in Magnetic Quantum Materials
Invited *Lei Zhang (Shanxi University);*

- 15:20 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);

15:35 **Coffee Break**

- 16:00 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);
- 16:15 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);

Session 2P20b
Spoof Plasmonic Devices and Systems

Wednesday PM, July 29, 2026

Room 20 - CR 28

Organized by Jingjing Zhang, Xuanru Zhang

Chaired by Liangliang Liu, Xuanru Zhang

- 16:20 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);
- 16:35 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);
- 16:50 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);
- 17:05 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);*

- 17:25 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);
- 17:40 A Broadband Nonmagnetic Spoof Plasmonic Circulator Based on Parametric Amplification
Yue Cen (Southeast University); Jingjing Zhang (Southeast University);
- 17:55 On-chip Microwave Oscillator Based on Spoof Plasmonic Skyrmions
Wan Zhu Wang (Southeast University); Xuanru Zhang (Southeast University);

Session 2P21a
High Power Fiber Lasers

Wednesday PM, July 29, 2026

Room 21 - CR 29

Organized by Hanshuo Wu, Jiaxin Song

Chaired by Hanshuo Wu, Jiaxin Song

- 13:00 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);
- 13:20 2 μ 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);
- 13:40 High Power and High Brightness Fiber Lasers in 950 nm Band
Invited
Tianfu Yao (National University of Defense Technology);
- 14:00 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);
- 14:20 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);

- 14:35 Dual-domain Feature Fusion Based Few-mode Fiber Mode Decomposition Method
Invited
Junyu Chai (Hangzhou Dianzi University); Zhicheng Song (Hangzhou Dianzi University);
- 14:55 High-performance Confined-doped Optical Fibers: Design, Fabrication and Application
Invited
Hanshuo Wu (National University of Defense Technology); Cheng Yang (National University of Defense Technology); Haobo Li (National University of Defense Technology); Xiaolin Wang (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); Qinhui 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);

15:30 **Coffee Break**

Session 2P21b
Specialty Optical Fiber Devices

Wednesday PM, July 29, 2026

Room 21 - CR 29

Organized by Jianzhong Zhang, Yushi Chu

Chaired by Changgui Lin

- 16:00 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);
- 16:15 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);
- 16:35 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);

16:50 Advanced Chalcogenide Glasses and Their Optoelectronic Sensing Applications

Invited *Shiliang Kang (Ningbo University); Shixun Dai (Ningbo University); Changgui Lin (Ningbo University);*

17:10 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 High-sensitivity Bio-inspired Optical Fiber Sensing Technology and Applications

Invited *Qizhen Sun (Huazhong University of Science and Technology);*

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);*

Session 2P22a

Poster Session for Best Student Presentation Awards Competition - Part 4

Wednesday PM, July 29, 2026

Poster Area

1 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);

2 Dual-wavelength Metalens Design for Compact LWIR and MWIR Imaging Systems

Ting Liu (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);

3 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. Stepikhova (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);

4 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);

5 Transmissive Pancharatnam-Berry Phase Metasurface for Circularly Polarized Beam Steering and RCS Reduction for 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);

6 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);

7 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);

8 Broadband Convolutional Processing Using Nonlinear Photoresponse in Transition Metal Dichalcogenides

Yingshan Ma (Beijing Institute of Technology); Yunyun Dai (Beijing Institute of Technology);

9 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);

- 10 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);
- 11 kHz-Rate Optical Chopping of a MEMS Infrared Heater for Enhanced Photoacoustic Detection
Zeru Wang (Tianjin University); Yujie Wei (Tianjin University); Hao Zhang (Tianjin University); Weiwei Cui (Tianjin University);
- 12 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);
- 13 Improving Stability of Inverted Perovskite Solar Cells without Cathode Interlayer via Doped PC₆₁BM by N-DMBI
Jialin Yang (Jilin University); Zilong Bing (Jilin University); Jingsong Huang (University of Oxford); Fenghong Li (Jilin University);
- 14 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);
- 15 Dual-band Bezel-integrated Antenna with Wide Beamwidth for Low-orbit Satellite-to-Handset Communication
Jiarui Liu (Tsinghua University); Yue Li (Tsinghua University);
- 16 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);
- 17 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);
- 18 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);
- 19 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);
- 20 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);
- 21 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);
- 22 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);
- 23 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);

- 24 A General and Efficient Non-linear Estimation Method in Temporal Phase Unwrapping for PS-InSAR
Junjun Gao (Northwestern Polytechnical University); Yuxiao Qin (Northwestern Polytechnical University);
- 25 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);
- 26 Differentiable-response-guided Deep Learning Inversion for Azimuthal Electromagnetic Logging While Drilling
Shuo Wang (Hefei University of Technology); Rencheng Song (Hefei University of Technology);
- 27 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);
- 28 Deep-learning-enhanced Transcranial Microwave-induced Thermoacoustic Imaging of Millimeter-scale Metallic Targets
Yunxiao Zhao (ShanghaiTech University); Xiong Wang (ShanghaiTech University);
- 29 Improvement of Phased Antenna Array Applied in Transcranial Focused Microwave Hyperthermia
Zijun Xi (ShanghaiTech University); Xiong Wang (ShanghaiTech University);
- 30 Magnet Configurations in m-shaped Variable Reluctance Energy Harvesters
Mengfei Wu (Mid Sweden University); Ye Xu (Mid Sweden University); Bengt Oelmann (Mid Sweden University); Sebastian Bader (Mid Sweden University);
- 31 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);
- 32 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);
- 33 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);
- 34 A Modal-based Multi-scatterer Propagation Model for Localized Radiomap Reconstruction
Wenli Li (Shenzhen Research Institute of Big Data); Guangxu Zhu (Shenzhen Research Institute of Big Data); Bin Wang (Shenzhen Research Institute of Big Data); Yi Zhang (Shenzhen Research Institute of Big Data);
- 35 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);
- 36 TCAD Simulation on Optoelectronic Properties of AlN-based VUV Photodetectors
Yang Zhang (Fudan University); Pengsheng Min (Fudan University); Y. Z. Zhang (Fudan University); F. T. Zeng (Fudan University); S. J. Li (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences); G. Q. Zhang (Delft University of Technology); Hongyu Tang (Fudan University);
- 37 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);
- 38 Specific Emitter Identification Method for Variable Symbol Rate Communications
Hui Liu (National University of Defense Technology); Dengri Wang (National University of Defense Technology);
- 39 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);
- 40 Q-modulated Nanophotonic Refractometric Sensing
Jiacheng Sun (Westlake University); Liaoyong Wen (Westlake University);
- 41 Tailoring Multidimensional Speckle via Physics-informed Learning
Ze-Huan Zheng (Xiamen University); Jinhui Chen (Xiamen University);

- 42 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); Weitang 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);
- 43 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);
- 44 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);
- 45 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);
- 46 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); Tian-Ming Li (University of Electronic Science and Technology of China);
- 47 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);

- 48 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 Ibnyach (Cadi Ayyad University); Abdelouhab Zeroual (Cadi Ayyad University);

Session 2P22b

Poster Session 5

Wednesday PM, July 29, 2026

14:00 PM - 18:00 PM

Poster Area

- 51 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);
- 52 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);
- 53 A Filtering Class F Power Amplifier Based on Multimode 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);

- 54 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);
- 55 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);
- 56 Statistical Modeling of SAR Range-compressed Data along Range and Azimuth Directions
Xiangguang Leng (National University of Defense Technology); Xiangdong Tan (National University of Defense Technology); Kefeng Ji (National University of Defense Technology);
- 57 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);
- 58 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);
- 59 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);
- 60 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);
- 61 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);
- 62 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);
- 63 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);
- 64 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);
- 65 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);

- 66 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);
- 67 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);
- 68 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);
- 69 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);
- 70 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);
- 71 Study of the Effect of Magnetoelectric Energy Generation by Harvester
Vasilii A. Misilin (Yaroslav-the-Wise Novgorod State University); V. A. Kiselev (Novgorod State University); A. A. Rak (Novgorod State University); Roman V. Petrov (Novgorod State University);
- 72 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);
- 73 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 Bobrov (Riga Technical University);
- 74 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);
- 75 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);
- 76 Research on G-T Performance Optimization and Front-end IC Design for Ku-band Satellite Communication Receivers
Xiuqi Lai (Shanghai University);
- 77 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. Saviolov (A.V. Gaponov-Grekhov Institute of Applied Physics, RAS);
- 78 Rapid Surrogate Model Construction for RCS Prediction Based on Space Mapping and ELM
Tianxu 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); Quan Sun (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));

- 79 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);
- 80 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);

Session 3A1a

Remote Sensing of Water and Energy Cycles

Thursday AM, July 30, 2026

Room 1 - CR 1

Organized by Hui Lu, Jiancheng Shi

Chaired by Shurun Tan

- 8:00 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);
- 8:15 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);
- 8:30 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);

- 8:45 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);
- 9:00 Transfer Learning to Improve Polarimetric Radar QPE in Diverse Precipitation Regimes
Haonan Chen (Colorado State University);

10:00 **Coffee Break**

Session 3A1b

Remote Sensing of the Cryosphere and Its Coupling with Atmospheric Processes

Thursday AM, July 30, 2026

Room 1 - CR 1

Organized by Dong Liang, Mingyang Lv

Chaired by Rui Song, Shuyang Xu

- 10:30 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);
- 10:45 Mechanical Ablation of Hailuoguo Glacier, Southeastern Tibetan Plateau, and Its Contribution to Mass Balance
Shuyang Xu (Wenzhou-Kean University);
- 11:00 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); Kunshan Chen (Nanjing University); Heming Xianyu (Nanjing University); Xiancai Lu (Nanjing University);
- 11:15 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);
- 11:30 Advancing Global Observations of Tropospheric Bromine Monoxide (BrO) from TROPOMI: Implications for Cryosphere-Atmosphere Coupling
Song Liu (Nanjing 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);

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

8:00 Subspace-Rytov Approximation Inversion Method for an
 Invited Inhomogeneous Background
Tiantian Yin (National University of Singapore); Li Pan (Huawei Singapore Research Centre); Xudong Chen (National University of Singapore);

8:20 On a Phase-space Approach to Linear Imaging with
 Invited Intensity-only Measurements
Davide Santagata (University of Campania "Luigi Vanvitelli"); Raffaele Solimene (University of Campania "Luigi Vanvitelli");

8:40 Practical Challenges in Inverse Scattering for RI Recon-
 Invited struction with Label-free Coherent Microscopy
Yingying Qin (UiT The Arctic University of Norway);

9:00 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);

9:15 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);

9:30 Computational Imaging in Complex Media
 Invited
Wen Chen (The Hong Kong Polytechnic University);

10:00 **Coffee Break**

10:30 Computational Holography with Randomness
 Invited
Ryoichi Horisaki (The University of Tokyo);

10:50 Assessment of Respiratory Air-volume Variation in the
 Human Thorax Using First-arrival Ultrasound and Elec-
 trical Impedance Tomography
Ziqi Li (Tsinghua University); Tong Zhang (Tsinghua University); Maokun Li (Tsinghua University); Fan Yang (Tsinghua University); Shenheng Xu (Tsinghua University);

11:05 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);

11:20 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);

11:35 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 Inverse Electromagnetic Scattering — Arc of Translation
 from Microwave Regime to Optical Domain Microscopy
Krishna Agarwal (UiT The Arctic University of Norway);

00:00 Physics-aware Deep Reconstruction for Robust Artifact
 Invited Removal in Lensless Fiber Imaging
Zewen Ma (Tsinghua University); Liangcai Cao (Tsinghua University);

Session 3A3a

Advances in Polarimetric and Interferometric SAR

Thursday AM, July 30, 2026

Room 3 - CR 3

Organized by Jun Hu, Rong Gui

Chaired by Jun Hu, Rong Gui

8:00 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);

- 8:15 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);
- 8:30 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);
- 8:45 Multi-polarimetric InSAR for Landslide Detection and Near-real-time Deformation Tracking
Yaogang Chen (Central South University); Jun Hu (Central South University);
- 9:00 Polarimetric Phase Linking for Multi-temporal InSAR Phase Optimization Based on Maximum Likelihood Estimation
Peng Shen (Wuhan University);
- 9:15 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);
- 9:30 Footprint-constrained Building-wise Phase Unwrapping for Urban 3D Reconstruction Using Multi-temporal InSAR
Invited Lei Zhang (Tongji University);
- 9:50 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);
- 10:05 A Low-cost MIMO-SAR system for Dynamic Deformation Monitoring of Bridges in Greater Bay Area
Lin He (Shenzhen University); Bochen Zhang (Shenzhen University);
- 10:20 **Coffee Break**

Session 3A3b
SAR/PolSAR Image Processing with Advanced Technologies

Thursday AM, July 30, 2026

Room 3 - CR 3

Organized by Tao Zhang, Sinong Quan

Chaired by Tao Zhang, Sinong Quan

- 10:30 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);
- 10:45 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);
- 11:00 Enhancing SAR Classification via Task-driven Diffusion-based Adversarial Data Augmentation
Jiuyan 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);
- 11:15 Polarimetry-inspired Self-supervised PolSAR Representation Learning
Invited Haixia Bi (Xi'an Jiaotong University);
- 11:35 Intelligent Technology for Aircraft Detection and Recognition through SAR Imagery: Advancements and Prospects
Invited Lingjun Zhao (National University of Defense Technology);
- 11:55 VL-SAE: Vision-language Guided Semantic Autoencoder for Zero-shot SAR Target Recognition
Jiajin Li (National University of Defense Technology); Zekang Fan (National University of Defense Technology); Siqian Zhang (National University of Defense Technology); Lingjun Zhao (National University of Defense Technology);
- 11:58 Physics-aware Structure-guided Soft Gating for Robust Optical-SAR Image Matching
Qichen Zhao (National University of Defense Technology); Jun Zhang (Xi'an Electronic Engineering Research Institute); Yaobing Xiang (National University of Defense Technology); Jiaqi Li (National University of Defense Technology); Lin Lei (National University of Defense Technology);

Session 3A4a**Recent Advances in Computational Electromagnetics: Methods and Applications****Thursday AM, July 30, 2026****Room 4 - CR 6**

Organized by Kewen He, Kazuya Kobayashi

Chaired by Kewen He, Kazuya Kobayashi

Session 3A4b**AI for Electromagnetics: Inverse Scattering and Inverse Design****Thursday AM, July 30, 2026****Room 4 - CR 6**

Organized by Zhun Wei, Kuiwen Xu

Chaired by Zhun Wei

- 8:00 Electromagnetic Scattering from a Material-loaded Parallel-plate Waveguide under E-polarized Incidence
Tong Zhang (Chuo University); Kazuya Kobayashi (Chuo University);
- 8:15 Scattering of Electromagnetic Waves by Inhomogeneous Dielectric Gratings Loaded with Parallel Perfectly Conducting Strips — Matrix Formulation of Point Matching Method
Tsuneki Yamasaki (Nihon University);
- 8:30 Spectral Integral Method for Multilayered Concentric Magneto-dielectric-metallic Spheres and Its Applications
Invited *Zhen Guan (Great Bay University); Fa-Lin Liu (University of Science and Technology of China); Feng Han (Great Bay University);*
- 8:50 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);
- 9:05 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);
- 9:20 Analysis of Energy Distribution in Multilayered Inhomogeneous Media with Frequency Dependence
Yuyi Wang (Nihon University); Ryosuke Ozaki (Nihon University); Tsuneki Yamasaki (Nihon University);
- 9:35 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));
- 9:50 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);
- 10:05 **Coffee Break**
- 10:30 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);
- 10:45 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);
- 11:00 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);
- 11:15 A New Activation Function for Physics-driven Neural Networks in Electromagnetic Inverse Scattering
Yutong Du (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);
- 11:30 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);
- 11:45 Deep Reinforcement Learning Based IPD Filter Design with Eigenvalues Decomposition Method
Yu Cheng (Hangzhou Dianzi University); Kuiwen Xu (Hangzhou Dianzi University);

Session 3A5a**Inverse Design of Antennas and RF Circuits****Thursday AM, July 30, 2026****Room 5 - CR 7**

Organized by Yujie Zhang, Ziheng Zhou

Chaired by Yujie Zhang, Ziheng Zhou

- 8:00 Subwavelength Pixel Metamaterial for High-density Analog Computing
Pengyu Fu (Tsinghua University); Yue Li (Tsinghua University);
- 8:15 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);*
- 8:35 Neural Network Based Single-RF ESPAR Beamforming
Invited *Zixiang Han (China Mobile Research Institute); Han-ning 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);*
- 8:55 AI for Electromagnetic Scattering Analysis Based on Inherent Feature Parameters
De-Hua Kong (National University of Singapore); Xudong Chen (National University of Singapore);
- 9:10 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);*
- 9:30 Inverse Design of Pixel-metastucture-based Multi-element MIMO Antennas
Bin Wei (Fuzhou University); Zubin Cheng (Fuzhou University); Ziheng Zhou (Fuzhou University);
- 9:45 Design of Matrix-type and Reconfigurable Multi-beam Antenna Arrays Using Pixel Structures
Fan Jiang (Guangdong University of Technology); Zhi-tao Song (Guangdong University of Technology);
- 10:00 **Coffee Break**
- 10:30 Design of Shared-aperture Multiband MIMO Antenna Array by Scattering Minimization
Yujie Zhang (Nanyang Technological University); Xudong Chen (National University of Singapore);

Session 3A5b
Quantum Light Source**Thursday AM, July 30, 2026****Room 5 - CR 7**

Organized by E Wu

Chaired by E Wu

- 10:45 Femtosecond Laser Writing of Preferentially Orientated Shallow NV Centers in (111) Diamond
Botao Wu (East China Normal University); E Wu (East China Normal University);
- 11:00 Research on Broadband Laser Amplification of Diamond NV Centers
Zitong Wang (East China Normal University); Jun-jie Lin (); E Wu (East China Normal University);
- 11:15 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);
- 11:30 Spectroscopy of Single Rare Earth Ions in Solids
Kangwei Xia (University of Science and Technology of China);
- 11:45 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);

Session 3A6a**Multiphysics Integrity Analysis and Simulation of Integrated Microsystems****Thursday AM, July 30, 2026****Room 6 - CR 9**

Organized by Wen-Sheng Zhao, Hanzhi Ma

Chaired by Wen-Sheng Zhao, Hanzhi Ma

- 8:00 Signal Integrity-based Improved Training and Inference
Invited Scheme for Memristor Crossbar Arrays
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);
- 8:20 The Influence of Circuit Interference on Power Devices
Invited in Power Converter Circuits
Jun Hu (Zhejiang University); Hao Xie (Hangzhou City University);

- 8:40 Electro-Thermal Co-Simulation of Metasurface-Enhanced Photodetectors 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);
- 8:55 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);
- 9:10 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);
- 9:13 Exploring the BiI3/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);
- 9:28 Measurement-driven Multiphysics Analysis of Low-frequency Magnetic Interference in Integrated Microsystems
Han Han (Zhejiang University); Da Li (Zhejiang University);
- 00:00 A General Framework for Electromagnetic Modelling Based on Equivalence Theorem
Shunchuan Yang (Beihang University);
- 10:00 **Coffee Break**
- 8:30 Research on Dual-band High-power Reflectarray 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);
- 8:45 Wideband Clover-shaped ME-dipole Antenna on Glass Substrate for D-band Array Applications
Jiachen Du (Pengcheng Laboratory); Wentao Xu (Pengcheng Laboratory); Zhangju Hou (Pengcheng Laboratory); Ge Zhang (Pengcheng Laboratory); Shangcheng Kong (Pengcheng Laboratory);
- 9:00 A Low-cost Multilayer 1-Bit Reconfigurable Reflectarray Design for Ku-band Applications
Jianying Zhao (Shanghai Polytechnic University); Chi Zhang (Shanghai Polytechnic University); Mei Song Tong (Tongji University); Li Zhang (Shanghai Polytechnic University);
- 9:15 Design of a Tri-band Dual Circularly Polarized Antenna
Jun-Cheng Shen (Xidian University); Xu-Bing Su (Xidian University); Neng-Wu Liu (Xidian University);
- 9:30 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);
- 10:00 **Coffee Break**

Session 3A7a

Antenna and Array: Theory and Applications 1

Thursday AM, July 30, 2026

Room 7 - CR 10

Chaired by Xiao-Jun Zou

- 8:00 Edge Loading Technique for Bandwidth Enhancement of Antipodal Vivaldi Antenna Array
Xiao-Jun Zou (Information Support Force Engineering University); Yu Xiao (Information Support Force Engineering University); Xin-Yu Zhan (Information Support Force Engineering University); Bin-feng Zong (Air Force Engineering University); Xuguang Xu (Air Force Engineering University); Lixun Han (Information Support Force Engineering University); Guo-Qin Kang (Information Support Force Engineering University);
- 8:15 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);

Session 3A7b

Microwave and Millimeter Wave Circuits and Devices, CAD

Thursday AM, July 30, 2026

Room 7 - CR 10

Organized by Debendra Kumar Panda

Chaired by Alejandro Diaz-Morcillo

- 10:30 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);
- 10:45 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);

- 11:00 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);
- 11:15 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);
- 11:30 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);
- 11:45 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);
- 11:48 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 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 Wanying Liu, Tingting Lv
-
- 8:00 Programmable Terahertz Grafted Vortex Interference
Invited Based on Patterned Transparent Electrodes and Liquid Crystal Anisotropy-induced Chiral Field
Fei Fan (Nankai University);
- 8:20 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);
- 8:35 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);
- 8:50 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);
- 9:05 Active Folded Bound States in the Continuum for Reconfigurable Coherent Perfect Absorption
Invited *Kebin Fan (Nanjing University);*
- 9:25 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);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 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);*
- 11:05 Programmable and Intelligent VO_2 -based Terahertz Metasurfaces for Adaptive Beam Steering
Invited *Jingbo Wu (Nanjing University);*
- 11:25 Reconfigurable Terahertz Multifunctional Metasurface Devices
Invited *Quanlong Yang (Central South University); Lingli Ba (Central South University); Junliang Yang (Central South University);*
- 11:45 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);*

Session 3A9
Functional Acoustic Metamaterials and
Topological Acoustics

Thursday AM, July 30, 2026

Room 9 - CR 12

Organized by Yifan Zhu, Haiyan Fan

Chaired by Yifan Zhu, Haiyan Fan

- 8:00 Non-Hermitian Topological Transport
Invited
He Gao (Nanjing University);
- 8:20 High-density Energy Harvesting from Multi-coupled Acoustic Metamaterial
Xinzong Wang (Southeast University); Yifan Zhu (Southeast University); Hui Zhang (Southeast University);
- 8:35 Acoustic Phase Holographic Imaging Based on Amplitude-phase Coupled Modulation
Xiao Guo (Southeast University); Yifan Zhu (Southeast University); Hui Zhang (Southeast University);
- 8:50 Experimental Realization of Type-II Quadrupole Topological Insulator
Yuan Liu (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);
- 9:05 Source-integrated Acoustic Metasurfaces for Radiation Control
Invited
Tuo Liu (Institute of Acoustics, Chinese Academy of Sciences);
- 9:25 Emergence of Chiral Landau Levels in Underwater Acoustic System
Jiao Shen (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);
- 9:40 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);
- 10:00 **Coffee Break**
- 10:30 Prediction and Reinforcement of Fracture-prone Regions in Disordered Mechanical Metamaterials
Invited
Baizhan Xia (Hunan University);
- 10:50 Elastic Trapped States at Dislocation Defects in Scaled Coupling and Hofstadter Models
Yangkai Liu (Southeast University); Haiyan Fan (Southeast University); Hui Zhang (Southeast University);
- 11:05 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);

- 11:25 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);
- 11:40 Multibranch Elastic Bound States in the Continuum of Lamb Waveguide
Shuwei An (Northwestern Polytechnical University);

Session 3A10
Optical Manipulation and Its Applications 1

Thursday AM, July 30, 2026

Room 10 - CR 13

Organized by Jack Ng, Jun Chen, Xiao Li

Chaired by Jack Ng, Jun Chen

- 8:00 Structureless Excitation and Dynamic Manipulation of Holographic Optical Surface-wave Tweezers
Invited
Changjun Min (Shenzhen University);
- 8:20 Optical Manipulations: from Non-Hermitian Physics to Multi-degree-of-freedom Control
Invited
Xiao Li (The Hong Kong University of Science and Technology);
- 8:40 Optical Forces and Torques in Unconventional Systems: From Moving Media to Polarization Singularities and Exceptional Points
Invited
Shubo Wang (City University of Hong Kong);
- 9:00 Probing Non-Hermitian Eigenmodal Structures from Trajectory-resolved Measurements in Levitodynamics
Invited
Han Cai (Zhejiang University);
- 9:20 Exploiting Optical Lateral Forces in Optical Tweezers
Invited
Yuzhi Shi (Tongji University (TJU));
- 9:40 Ice-interface Optothermal Tweezers for Programmable Cryogenic Assembly of Heterogeneous Micro- and Nanostructures
Invited
Jiajie Chen (Shenzhen University);
- 10:00 **Coffee Break**
- 10:30 Optomechanical Manipulation of Resonant Nanoparticles by Directional Excitation of Surface Plasmon Polaritons
Semyon Sergeevich Borodulin (ITMO University); Natalia Kostina (ITMO University Lomonosov); Mikhail I. Petrov (ITMO University);
- 10:45 Generalized Electromagnetic Stress Tensor Theory Based on Microscopic-macroscopic Correlation: Beyond Traditional Forms
Liyong Cui (Changsha University of Science & Technology); Neng Wang (Shenzhen University);
- 11:00 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);

11:15 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);

11:30 High-throughput Flexible On-chip Optical Tweezers
 Invited *Hongbao Xin (Jinan University);*

00:00 Go beyond the Diffraction Limit for the Manipulation of Nano-objects
Quanbo Jiang (Université de Technologie de Troyes);

Session 3A11

Bound States in the Continuum-fundamentals and Applications 1

Thursday AM, July 30, 2026

Room 11 - CR 15

Organized by Lujun Huang, Jiajun Wang

Chaired by Lujun Huang, Jiajun Wang

8:00 Tunable Bound States in the Continuum Beyond Lattice Design
 Invited

Yan Meng (Dongguan University of 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);

8:20 Chiral Emission with Bound States in the Continuum on the Verge of the Light Cone
 Invited

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));

8:40 Dispersionless Photonic and Polaritonic Flatbands with Conserved Q Factors
 Invited

Xia Zhang (Northeastern University);

9:00 Optically Tuneable Nonlinear Resonant Metasurfaces and Nanostructures
 Invited

Lei Xu (Nottingham Trent University);

9:20 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);

9:35 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. Bezus (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");

10:00 Coffee Break

10:30 Engineering Dispersion in Meta-lenses: From Broadband Achromatic Imaging to Spectral-selective Focusing
 Invited

Mu Ku Chen (City University of Hong Kong);

10:50 Momentum-mismatch-driven Bound States in the Continuum in Meta-gratings
 Invited

Feng Wu (Guangdong Polytechnic Normal University); Shuyuan Xiao (Nanchang University);

11:10 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);

11:25 Non-Hermitian Control in Nonlocal BIC Metasurfaces and Its Applications

Kenren Wang (Sichuan University); Wei Wang (Sichuan University);

11:40 Goos-Hänchen Shift of Symmetric-broken Meta-grating with Bound States in the Continuum

Ma Luo (Guangdong Polytechnic Normal University);

Session 3A12

Nanophotonics with Quantum Emitters

Thursday AM, July 30, 2026

Room 12 - CR 16

Organized by Jianwei Tang

Chaired by Jianwei Tang

8:00 Resonance Fluorescence of a Strongly Driven Two-level System with Dynamically Modulated Frequency
 Invited

Shuo Sun (University of Colorado Boulder);

8:20 Hybrid Integrated Quantum Photonic Devices and
Invited Chips

Jiaxiang Zhang (Shanghai Institute of Microsystems and Information Technology (SIMIT), Chinese Academy of Sciences);

8:40 Spin Generation in Coupled Emitter-nanostructure Sys-
Invited tems

Mark Sadgrove (Tokyo University of Science);

9:00 Ultrafast Electron and Spin Dynamics in Perovskite
Invited Nanocrystals

Linjie Dai (Peking University);

9:20 Efficient Two-photon Emission from a Quantum Dot
Invited

Bang Wu (Beijing Academy of Quantum Information Sciences);

9:40 Aromatic Molecular Emitters in a Hexagonal Boron-
Invited 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);

10:00 **Coffee Break**

10:30 Static Hybrid Quantum Nodes for Deterministic On-chip
Invited Quantum Information Processing

Zhaohua Tian (Zhejiang Sci-Tech University);

10:50 Scanning-exciton Optical Nanoscopy Using a Single
Invited Quantum Dot

Zhiyuan Wang (Taiyuan University of Technology);

11:10 On-chip Quantum Interference of Indistinguishable Sin-
gle 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);

11:25 Ab Initio Modeling of Multi-emitter Quantum Electro-
dynamics 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);

Session 3A13

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

8:00 Information Processing through Photonic Devices En-
Invited abled through Adaptive Laser Fabrication

Martin J. Booth (University of Oxford);

8:20 Noise-resistance Photon-correlation Parallel LiDAR
Invited Driven by Super-bunching Light

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);

8:40 Two-photon Quantum Module Evaluation (TQME): A
Invited Scalable and Resource-efficient Benchmarking Approach

Xiaoqi Zhou (Sun Yat-Sen University);

9:00 Exploring Ultrastrong and Deep-strong Light-matter
Invited Coupling in Superconducting Circuits: From Symmetry Breaking to Record-high Coupling Strengths

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);

9:20 Demonstration of Long-distance Quantum Time Trans-
Invited fer Based on Energy-time Entangled Biphotons

Huibo Hong (National Time Service Center, Chinese Academy of Sciences); Runai Quan (National Time Service Center, Chinese Academy of Sciences); Xiao Xi-ang (National Time Service Center, Chinese Academy of Sciences); Ruifang Dong (National Time Service Center, Chinese Academy of Sciences);

9:40 Nonlocal Signal Processing Based on Energy-time En-
Invited tangled Source

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);

10:00 **Coffee Break**

10:30 On-chip Generation and Coherent Processing of Time-
bin Entangled Photon States

Hao Yu (The Hong Kong Polytechnic University);

- 10:45 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);
- 11:00 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);
- 11:15 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);
- 11:30 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);
- 11:45 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);
- 8:15 Advanced Optical Sensing and Applications
Sailing He (Royal Institute of Technology & Zhejiang University);
- 8:30 Electromagnetic Sensing of Living Systems: Neural Activity Inference Using Photonic Biosensors and Radar-inspired Techniques
Hugo Enrique Hernandez-Figueroa (University of Campinas (UNICAMP));
- 8:45 Challenges and Determinants in Nanofluid Thermal Conductivity Enhancement: Implications for Renewable Energy Storage Integration
Sajid Farooq (Zhejiang Normal University); Sailing He (Royal Institute of Technology & Zhejiang University);
- 9:00 Nanomaterial-engineered Biointerfaces for Wearable Sensing and Therapy
Martina Migliavacca (Zhejiang University); Samia Kanwal (Istituto Italiano di Tecnologia (IIT)); Pier Paolo Pompa (Zhejiang University);
- 9:15 Machine Learning and Network Analysis Reveal Mutation-driven Co-resistance Architectures in Mycobacterium Tuberculosis
Sajid Farooq (Zhejiang Normal University); Sailing He (Royal Institute of Technology & Zhejiang University);
- 00:00 Highly Pure Chiral Emission via Planar Chiral Metasurfaces
Yi Jin (Zhejiang University);
- 10:00 **Coffee Break**

Session 3A14a
Meeting of Minds for Cross-continental Collaboration in Photonics and Electromagnetics

Thursday AM, July 30, 2026

Room 14 - CR 18

Organized by Hugo Enrique Hernandez-Figueroa,
Sailing He

Chaired by Hugo Enrique Hernandez-Figueroa, Sailing He

- 8:00 Bound States in the Continuum in Dielectric Metasurfaces: From Fundamental Physics to Advanced Functionalities
Mikhail V. Rybin (ITMO University);

Session 3A14b
Advanced Optical Sensors

Thursday AM, July 30, 2026

Room 14 - CR 18

Organized by Huan Li, Weixi Liu

Chaired by Weixi Liu

- 10:30 Power-efficient Computational Spectrometers on Silicon
Invited Photonic Chips
Yiming Ma (Shanghai University);
- 10:50 Levitated Nanoparticles as Optical Sensors for Low-frequency Electric-field Measurement and Applications
Invited
Zhenhai Fu (Zhejiang University);
- 11:10 High-performance Passive Integrated Photonic Devices
Invited for Fiber Gyroscopes
Weixi Liu (Zhejiang University);
- 11:30 Research on the Application of Relative Intensity Noise Electro Spectral Detection Method in Fiber Optic Sensing
Jin Jichao (Zhejiang University); Xingfan Chen (Zhejiang University);
- 00:00 Integrated Photonic Chips and Devices for Optical Gyroscopes
Invited
Hongchen Jiao (Beihang University);

00:00 Integrated Fiber Optic Gyroscope Based on Optical
Invited Waveguide Chip
Changkun Feng (Beihang University);

Session 3A15

Integrated Photoelectric Information Processing Technology

Thursday AM, July 30, 2026

Room 15 - CR 19

Organized by Huashun Wen, Heng Zhou

Chaired by Heng Zhou

8:00 W-level Terahertz Power Amplification and Kilometer-
Invited level Wireless Transmission beyond 300 GHz Using Hybrid Photonic-Electronic Synergy
Yuancheng Cai (Purple Mountain Laboratories);

8:20 Experimental Investigation of Phase-sensitive Amplifi-
Invited cation Extinction Ratio in Optical Frequency Comb-enabled Optical Parametric Amplifier
Jiabin Cui (Beijing University of Posts and Telecommunications);

8:40 Dual-target Optical Pattern Recognition for BPSK Sig-
nals 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);

8:55 Low-noise Optical Parametric Signal Processing
Invited
Ping Zhao (Sichuan University);

9:15 Erbium-doped Amplifier and Mode-locked Lasers on
Invited Thinfilm Lithium Niobate
Kan Wu (Shanghai Jiao Tong University);

9:35 Programmable Optical Computing Chips and Systems
Invited
Wenchan Dong (Huazhong University of Science and Technology);

9:55 Harnessing Physics-data Co-driven Deep Neural Net-
works for Deciphering Optical Coupled Resonant Sys-
tems
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);

10:10 Coffee Break

10:30 High-precision Forward Distributed Optical Fiber Sens-
Invited ing
Huan Huang (Soochow University);

10:50 Quantum Metrology with On-chip Quantum Frequency
Invited Combs in an SU(1,1) Interferometer
Guangqiang He (Shanghai Jiao Tong University);

11:10 Supercontinuum Generation in Integrated Waveguide
Invited Platforms and Their Applications
Xingchen Ji (Shanghai Jiaotong University);

11:30 Low-noise Laser and Frequency Comb Based on a Bril-
Invited louin Ring
Hualong Bao (Soochow University);

00:00 Real-time FPGA Implementation of a Low-complexity
Invited Architecture for IM/DD and Coherent Reception in Data-center Interconnects
Fan Li (Sun Yat-sen University);

Session 3A16

Light-matter Interaction in Micro- and Nanostructures 2

Thursday AM, July 30, 2026

Room 16 - CR 20

Organized by Pavlos G. Savvidis, Zheng Sun

Chaired by Zheng Sun

8:00 Exciton-polarons in Doped Monolayer Semiconductors
Invited
Dmitry K. Efimkin (Monash University);

8:20 Photonic Crystal Cavity-enhanced Quantum Dot Single
Invited Photon Sources
Feng Liu (Zhejiang University);

8:40 Quantum Theory of Polariton Weak Lasing and Polar-
ization Bifurcations
Huawen Xu (Beijing Academy of Quantum Information Sciences);

8:55 Light-matter Interaction in All-van der Waals Metasur-
Invited faces

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));

- 9:15 Luminescence Control in CsPbBr₃ 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);
- 9:30 Rashba Effect and Strong Exciton-photon Coupling in CsPbBr₃
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);
- 9:45 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));
- 10:05 **Coffee Break**
- 10:30 Valley-engineered Landau Polaritons in a Van der Waals Semiconductor Microcavity
Xinyue Zhang (Xiamen University); Hongming Zhang (Xiamen University); Long Zhang (Xiamen University); Zhanghai Chen (Xiamen University);
- 10:45 Strong Plasmon-exciton Coupling in Plasmonic Nanocavity: Nonlinearity and Exceptional Point
Shunping Zhang (Wuhan University);
- 11:00 Exciton-polaritons in All-TMDC SnS₂/WS₂/SnS₂ 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);
- 11:15 Optimization of Luminescence in Strongly Coupled Plasmon-exciton Hybrids
Li Zhou (Wuhan University);
- 00:00 Experimental Observation of Topological Polaritons and Phase Transitions
Invited Ce Shang (Aerospace Information Research Institute, Chinese Academy of Sciences);
- 8:00 Tunable-focus Terahertz Meta-devices for 6G and Beyond
Invited Jingcheng Zhang (Northwestern Polytechnical University);
- 8:20 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);
- 8:40 End-to-end Framework Empowers Versatile Metasurface Design
Invited Cheng Chi (Beijing Institute of Technology);
- 9:00 Metasurface-enabled Dynamical Optical Functions and Reconfigurable Information Steganography
Invited Song Gao (University of Jinan);
- 9:20 High-Q Resonant Metasurfaces and Their Applications
Invited Lujun Huang (East China Normal University);
- 9:40 Disordered Mosaic Metasurfaces with Enhanced Functional Density
Invited Haoran Ren (Monash University);
- 10:00 **Coffee Break**
- 10:30 Nonlinearity-induced Chirality in Resonant Metasurfaces
Invited Kirill L. Koshelev (Australian National University);
- 10:50 Tailoring Multidimensional Chiral Responses in All-dielectric Metasurfaces via Out-of-Plane Symmetry Engineering
Invited Jingyi Tian (Westlake University);
- 11:10 High-throughput Linear and Nonlinear Optical Switching Enabled by Sb₂S₃/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);
- 11:25 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);

Session 3A17

Recent Advances in Optical Metasurfaces 1

Thursday AM, July 30, 2026

Room 17 - CR 25

Organized by Fei Ding, Cheng Zhang

Chaired by Fei Ding, Cheng Zhang

- 11:40 Design Optimization of Asymmetric Infrared (IR) Transparent Metasurface for Passive Radiative Cooling Applications
Mohamad Khoirul Anam (Pohang University of Science and Technology); Dong-Yeop Na (Pohang University of Science and Technology);

Session 3A18

Advanced Photonic Technologies for Sensing & Imaging Applications 1

Thursday AM, July 30, 2026

Room 18 - CR 26

Organized by Simone Borri, Weixiong Zhao, Lei Dong, Marco Marangoni

Chaired by Weixiong Zhao, Lei Dong

- 8:00 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);*
- 8:20 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);*
- 8:40 Development of Frequency-stabilized Cavity Ring-down Spectroscopy for Direct Measurement of HO₂ 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);
- 8:55 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);
- 9:10 A Frequency-locked Fiber-optic Gyroscope Based on Cascaded Resonant Stimulated-Brillouin Scattering
 Invited *Gianluca Gagliardi (CNR, Istituto Nazionale di Ottica (INO));*

- 9:30 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);*

10:00 Coffee Break

- 10:30 Highly Sensitive Spectroscopic Detection of SF₆ 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);
- 10:45 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);

11:00 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);

11:15 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);

11:30 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);

11:45 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 (Universite Pierre et Marie-Curie (Paris 6)); Pascal Jeseck (Universite 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);

Session 3A19

Topological, Non-Hermitian and Supersymmetric Photonics

Thursday AM, July 30, 2026

Room 19 - CR 27

Organized by Lu Sun

Chaired by Lu Sun

8:00 Non-Abelian Gauge Fields in Synthetic Frequency Lattices

Invited

Luqi Yuan (Shanghai Jiao Tong University);

8:20 Non-Abelian Braiding in Integrated Photonics

Invited

Xu-Lin Zhang (Jilin University);

8:40 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);

9:00 Overcoming Adiabatic Limitations in Topological Photonic Waveguides

Invited

Wange Song (Nanjing University);

9:20 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);

9:40 Landau Rainbow Induced by Artificial Gauge Fields

Wen Zhao (Beijing Institute of Technology); Cuicui Lu (Beijing Institute of Technology);

10:00 **Coffee Break**

- 10:30 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);
- 10:45 Photonic Platform for Topological Insulator Models
Kun Liao (Peking University); Xiaoyong Hu (Peking University);
- 11:00 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);
- 11:15 Valley Topological Photonics for Robust Classical and Quantum Information Processing
Hongwei Wang (Nanyang Technological University);
- 11:30 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);
- 00:00 Silicon Photonic Chiral Transmission
Invited
Lin Chen (Huazhong University of Science and Technology);

Session 3A20a

New Advances in Hybrid Nanomaterials: From Photonics to Energy-related Applications

Thursday AM, July 30, 2026

Room 20 - CR 28

Organized by Andrea Toma, Marzia Ferrera

Chaired by Andrea Toma, Marzia Ferrera

- 8:00 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);
- 8:20 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);

- 8:40 Quantifying Light-driven Interfacial Charge Transfer in Metal-semiconductor Materials
Invited
Olivier Henrotte (Ludwig-Maximilians-Universität München);
- 9:00 Infrared Purcell Engineering of Vibrational Relaxation for Controlling Excited-state Dynamics in 2D Materials
Invited
Kosei Ueno (Hokkaido University);
- 9:20 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);
- 9:35 Lattice Resonances Supported by Bravais vs. Non-Bravais Metal Nanoparticle Arrays
Vincenzo Aglieri (Istituto Italiano di Tecnologia); Juan José Alvarez-Serrano (Instituto de Química Física Blas Cabrera (IQF), CSIC); Muhammad Sohaib (Istituto Italiano di Tecnologia); Juan Ramón Deop-Ruano (Instituto de Química Física Blas Cabrera (IQF), CSIC); Alejandro Manjavacas (CSIC); Andrea Toma (Istituto Italiano di Tecnologia);
- 10:05 **Coffee Break**

Session 3A20b

Extreme Nanophotonics in Plasmonic Nanostructures and Low-dimensional Systems 1

Thursday AM, July 30, 2026

Room 20 - CR 28

Organized by Wen Chen, Huatian Hu

Chaired by Wen Chen

- 10:30 Plasmon-2D Single Exciton Strong Coupling at Room Temperature
Invited
Ting Luo (Henan University); Shihao Feng (Henan University); Renming Liu (Henan University);
- 10:50 Electron Tunnelling and Exciton Manipulation in 2D WSe₂ Enabled by Hierarchical Plasmonic Nanocavities
Invited
Ximin Cui (Shenzhen University);
- 11:10 Manipulating the Light-matter Interactions within Single Plasmonic Nanocavities
Jiawei Sun (Shenzhen University);
- 11:25 Quantitative SERS beyond the Single-molecule Level and Its Statistical Mechanism
Invited
Zhipeng Li (Capital Normal University); Longkun Yang (Capital Normal University); Hongxing Xu (Institute of Physics, Henan Academy of Sciences);
- 11:45 Modulation of Near-field Radiative Thermal Transport along a SiC Nanoparticle Chain Mediated by an α -MoO₃ Substrate
Zhen Gong (Shanghai Jiao Tong University); Mengqi Liu (Shanghai Jiao Tong University); Changying Zhao (Shanghai Jiao Tong University);

00:00 Topological Nanophotonics on Metal Surfaces

Invited

Tong Fu (Shenzhen University);

Session 3A21

Disorder in Photonics 1

Thursday AM, July 30, 2026

Room 21 - CR 29

Organized by Haoran Ren, Changxu Liu

Chaired by Haoran Ren

8:00 Disordered Nanoparticle Arrays and Metasurfaces for

Invited Energy Harvesting and Encoding Optical Functionalities

Stefan Alexander Maier (Monash University);

8:20 Boosted Light-matter Interaction on Random
Invited Lithography-free Metasurfaces

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

8:40 Vector Vortex Beam Based Edge Enhancement with Dy-
Invited namic Orientation Selectivity

Xianzhong Chen (Heriot-Watt University); Hammad Ahmed (Heriot-Watt University);

9:00 Disorder Metasurface for Wavefront Modulation

Invited

Qinghua Song (Tsinghua University);

9:20 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 Witwatersrand); Stefan Alexander Maier (Monash University); Haoran Ren (Monash University); Andrew Forbes (University of the Witwatersrand);

9:35 Engineering 2D Materials for Polariton Nanophotonics

Invited

Qingdong Ou (Macau University of Science and Technology);

10:00 **Coffee Break**

10:30 Ultra-broadband Miniature Computational Spectrome-
Invited ter

Dawei Liu (The Australian National University, Canberra); Chaohao Chen (University of Technology Sydney); Yang Yu (The Australian National University, Canberra); Lan Fu (The Australian National University);

10:50 Generalized Angle-OAM Talbot Effect

Invited

Jianqi Hu (University of Hong Kong);

11:10 Diamond Based Nanophotonic Devices

Invited

Pei-Nan Ni (Zhengzhou University);

11:30 Chiroptical Helical Dichroism by Photonic Orbital An-
gular Momentum

Jincheng Ni (University of Science and Technology of China);

11:45 Structured Micro-lasers with Monolithic Disordered Per-
Invited ovskite Meta-cavities

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

Session 3A22

Poster Session 6

Thursday AM, July 30, 2026

9:00 AM - 12:00 AM

Poster Area

1 Design and De-embedding Methodology of Test Fixture
for Accurate H-MTD Connector Characterization

Cailiang Fu (Southwest University of Science and Technology); Anfeng Huang (DeTooLIC Technology Co., Ltd); Yin Sun (DeTooLIC Technology Co., Ltd); Xiaohu Chen (China University of Petroleum); Jie Li (Southwest University of Science and Technology); Wei Zheng (Southwest University of Science and Technology); Shufang Li (Beijing University of Posts and Telecommunications);

2 Architecture Design of Software-defined Decentralized
DBF Transceiver Module with Heterogeneous Acceleration

Liu Yang (CSSC Eighth Research Institute); Nan Zhao (CSSC Eighth Research Institute); Jiahui Xu (CSSC Eighth Research Institute); Wenfeng Chen (CSSC Eighth Research Institute);

3 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); Haoran Li (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);

4 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.); Hangkai Zhang (Zhejiang University); Yin Sun (DeTooLIC Technology Co., Ltd.); Xiaohu Chen (China University of Petroleum); Jingkun Mao (Tianjin University of Technology);

- 5 Riemann-Silberstein Geometric Phase of Light
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);
- 6 Topological Phase Transition and Higher-order Corner States Analysis in a Coupling-coefficient-controlled Two-dimensional SSH Model
Yurou Zhong (Sun Yat-sen University);
- 7 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);
- 8 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);
- 9 Coherent Control of Three-level System Using Shaped Free Electrons
Dixuan Wu (Peking University); Jing Li (Peking University); Yuhuan Jiang (Peking University); Yunquan Liu (Peking University);
- 10 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); Yunqiao Yin (Soochow University); Xiaofeng Xu (Soochow University); Lei Gao (Suzhou City University);
- 11 Si-integrated Epitaxial BaTiO₃ 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);
- 12 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);
- 13 Deep-ultraviolet-modulated Polarization-sensitive Optoelectronic Synapses Based on Ga₂O₃ for Neuromorphic Computing
Zhenyang Wang (Zhejiang Sci-Tech University); Chao Wu (Zhejiang Sci-Tech University); Daoyou Guo (Zhejiang Sci-Tech University);
- 14 Study of 3–5 μm 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);
- 15 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);
- 16 Development of Switched 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 (Telkom University); Novelita Rahayu (National Research and Innovation Agency (BRIN)); Achmad Munir (Institut Teknologi Bandung);

- 17 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);
- 18 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);
- 19 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);
- 20 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); Xiugong Li (Guangzhou University); Yisi Yang (Guangzhou University);
- 21 A Low-power Wideband Low-noise Amplifier with Current-reused Topology in 0.18- μm 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); Xiugong Li (Guangzhou University);
- 22 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);
- 23 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);
- 24 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);
- 25 A Novel Frequency Domain Phase Filter for InSAR Interferograms Based on the Goldstein Filter
Shicheng Cao (Northwestern Polytechnical University); Yuxiao Qin (Northwestern Polytechnical University);
- 26 A Lightweight Spiral Mamba Network with Wavelet-guided Multi-scale Feature Learning for PolSAR Image Classification
Wenqiang Hao (Wuhan Institute of Technology); Lei Wang (Wuhan Institute of Technology); Liangliang Han (Wuhan Institute of Technology); Rong Gui (Central South University); Shenghui Zhu (Wuhan Institute of Technology);
- 27 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 Defense Technology); Feng Zhao (National University of Defense Technology);
- 28 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);
- 29 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);

- 30 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);
- 31 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);
- 32 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);
- 33 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);
- 34 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);
- 35 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);
- 36 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);
- 37 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);
- 38 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);
- 39 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);
- 40 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);
- 41 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);

- 42 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);
- 43 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);
- 44 Approximate Flat Bands and Localization in a One-dimensional Zigzag Granular Chain
Zhuo-Ying Liu (Sun Yat-sen University);
- 45 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);
- 46 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);
- 47 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);
- 48 Multi-channel Illumination Nonlinear Focus Modulation Microscopy
Junyi Tong (Zhejiang Normal University); Anping Xiao (Zhejiang Normal University); Chuankang Li (Zhejiang Normal University);
- 49 Comparative Analysis of CNN Architectures Efficiency in Recognition of Wavefront Aberrations by the 4-channel Axicons Transformed Point Spread Function
D. P. Seraftimovich (Samara National Research University); Pavel A. Khorin (Samara National Research University, Saint-Petersburg State University, ITMO University);
- 50 A Fast Radon-Fourier Transform Algorithm Based on Hierarchical Variable-resolution Search
Ziyu Feng (University of Electronic Science and Technology of China);
- 51 Design and Research of High-efficiency Compact Bunching Sections for C-band Klystrons
Hongtao Yao (Northwest Institute of Nuclear Technology);
- 52 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);
- 53 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));
- 54 Spatial Code Division Encrypted/Multiplexed Images
Junhe Zhou (Tongji University); Qiqi Wang (Tongji University);
- 55 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); Xiugong Li (Guangzhou University); Yisi Yang (Guangzhou University); Jingmin Jiang (Guangzhou University); Zihua Xia (Guangzhou University); Zicheng Liang (Guangzhou University); Rui Yu (Guangzhou University);
- 56 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);
- 57 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);

- 58 Physics-inspired Neural Networks Based on Parametric Scattering Center for RCS Reconstruction
Tianxu 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); Quan Sun (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));
- 59 Optically Pumped Amplified Spontaneous Emission 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); Wentian Zhang (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); Xingyuan Liu (Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences);
- 60 CNN-transformer Hybrid Architecture for Nonlinear Distortion Compensation in Open RAN Optical Infrastructure
Igors Liplanskis (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);
- 61 A High Gain, UWB Vivaldi Antenna Loaded with Director for EMC Measurement Application
Tong Li Yuan (Southwest University of Science and Technology); Hao-Ran Jiang (Sichuan Jiuzhou Electric Appliance Group Co., Ltd.); Tao Liu (Sichuan Jiuzhou Electric Group Co., Ltd.); Chunying Zhao (Chengdu Tianao Technology Development Co., Ltd.); 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); 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);
- 62 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);
- 63 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 Sergeyevich Mikhailov (National Research University "Moscow Power Engineering Institute"); Valery A. Permyakov (National Research University "Moscow Power Engineering Institute");
- 64 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);
- 65 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); Dong Xu (Sichuan Jiuqiang Communication Technology Co., Ltd.); Ju Wu (Sichuan Jiuqiang Communication Technology Co., Ltd.); Qiang-ming Cai (Southwest University of Science and Technology); Longjian Zhou (Southwest University of Science and Technology); Haoran Li (Southwest University of Science and Technology); Jun Xie (Southwest University of Science and Technology); Yuyu Zhu (Southwest University of Science and Technology);

- 66 Compact High-selectivity Bandpass Filter Based on Cross-coupled SIRs
Ji Li (Southwest University of Science and Technology); Zuxue Xia (Southwest University of Science and Technology); Xin Cao (Southwest University of Science and Technology); Hangjiang Xiao (Southwest University of Science and Technology);
- 67 A 2.4-GHz 0.18- μm 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);
- 68 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);
- 69 A Tunable VO₂-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);
- 70 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);
- 71 Coexistence Challenges of Meteorological Radars and RLAN in the 5 GHz Frequency Band
Guntis Ancans (Riga Technical University); Arnis Ancans (Riga Technical University); Lilita Gegere (Riga Technical University); Vjaceslavs Bobrovs (Riga Technical University);
- 72 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);
- 73 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);
- 74 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);
- 75 Analysis of Error Sources in Terahertz Ice Cloud Brightness Temperature Simulation
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)); Kun Qin (Shanghai Spaceflight Institute of TT&C and Telecommunication); Wulayin Yisilamu (Institute of Desert and Meteorology, China Meteorological Administration); Xi Ye (Shanghai Spaceflight Institute of TT&C and Telecommunication);
- 76 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);
- 77 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); Jingxin Wei (Southwest University of Science and Technology);
- 78 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);

Session 3P1a

Remote Sensing of Ocean Dynamical Processes: Methods and Applications

Thursday PM, July 30, 2026

Room 1 - CR 1

Organized by Xudong Zhang, Junmin Meng

Chaired by Xudong Zhang

- 13:00 Submesoscale Dynamical Processes in the Northern South China Sea Based on Numerical Simulations Combined with Remote Sensing Data
Zhanpeng Zhuang (Ministry of Natural Resources);

- 13:15 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);
- 13:30 Scattering Coefficient Reconstruction and Oil Spill Localization Using Multi-track CYGNSS Observations
Rui Zhang (China University of Petroleum); Yong Wan (China University of Petroleum); Xiangying Miao (China University of Petroleum);
- 13:45 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);
- 14:00 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);
- 14:15 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);
- 14:30 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);
- 14:45 Multi-source Satellite Observations Promote the Study of Internal Solitary Waves
Xudong Zhang (Institute of Oceanology, Chinese Academy of Sciences); Zhixin Li (Institute of Oceanology, Chinese Academy of Sciences); Xiaochen Wang (Institute of Oceanology, Chinese Academy of Sciences); Xiaofeng Li (Institute of Oceanology, Chinese Academy of Sciences);
- 15:00 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);
- 15:15 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);
- 15:30 **Coffee Break**
-
- Session 3P1b**
AI-enhanced Microwave Remote Sensing of Sea Ice
-
- Thursday PM, July 30, 2026**
Room 1 - CR 1
Organized by Yibin Ren, Yufang Ye
Chaired by Yibin Ren
-
- 16:00 GLFFuse: A Multimodal Feature-level Fusion Network for Multi-task Fine-grained Recognition of Arctic Sea Ice
Xinwei Chen (South China University of Technology);
- 16:15 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);
- 16:30 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);

- 16:45 Extracting Features of Sea Ice Leads in the Arctic Using a Deep Learning Model from 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);
- 17:00 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);
- 17:15 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);
- 17:30 Regional Arctic Sea Ice Concentration Product Derived from Spaceborne Radarsat-2 SAR Imagery
Yiru Lu ();
- 13:45 Quantitative Comparison of Reflectivity between the S-band Weather Radar and the C-band Phased-array Radar in Beijing
Bowen Ren (Chengdu University of Information Technology); Jinqiang Zhang (Institute of Atmospheric Physics, Chinese Academy of Sciences); Fugui Zhang (Chengdu University of Information Technology); Siyu Sun (North China ATMB CAAC); Hui Wang (Beijing Meteorological Observation Center); Jia Guo (HuaYun METSTAR Radar (Beijing) Company, Limited); Yan Fu (Chengdu University of Information Technology); Hong-Bin Chen (Institute of Atmospheric Physics, CAS); Xiaoqiong Zhen (Chengdu University of Information Technology); Wenyong 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); Xi-anzhong Tian (City University of Hong Kong Qingdao Research Institute);

Session 3P2a

Advances in Radar Sensing and Imaging Techniques

Thursday PM, July 30, 2026

Room 2 - CR 2

Organized by Kai Tan, Xianzhong Tian

- 13:00 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);
- 13:15 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);
- 13:30 Multi-source Observational Data Analysis of a Convective Heavy-rainfall Event in Aba Tibetan and Qiang Autonomous Prefecture
Yan Fu (Chengdu University of Information Technology); Xiaojing Huang (Sichuan Meteorological Observatory); Li Luo (Institute of Urban Meteorology); Bowen Ren (Chengdu University of Information Technology); Ling Yang (Chengdu University of Information Technology); Xiaoqiong Zhen (Chengdu University of Information Technology); Fang Cong (Sichuan Meteorological Observatory);

Session 3P2b

Microwave Imaging and Planetary Exploration Applications

Thursday PM, July 30, 2026

Room 2 - CR 2

Organized by Pingping Lu, Robert Yu Wang

Chaired by Pingping Lu, Tingyu Meng

- 14:15 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); Tingyu Meng (Aerospace Information Research Institute, Chinese Academy of Sciences); Fei Zhao (Aerospace Information Research Institute, Chinese Academy of Sciences);
- 14:30 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);

- 14:45 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);
- 15:00 Full Polarimetric Electromagnetic Scattering Modeling and Impact Analysis of Lunar Water Ice Particles
Niutao Liu (Fudan University); Lan Luo (Fudan University); Ya-Qiu Jin (Fudan University);
- 15:15 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);

15:30 **Coffee Break**

Session 3P2c

Electromagnetic Scattering and Inversion in Complex Environments

Thursday PM, July 30, 2026

Room 2 - CR 2

Organized by Hongxia Ye, Yuan Fang

Chaired by Hongxia Ye, Yuan Fang

- 16:00 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);

- 16:15 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);
- 16:30 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);
- 16:45 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);
- 17:00 NIE-Net: A New Integral Equation Network for Inverse Scattering Problems
Zhenghui Su (Fudan University); Hongxia Ye (Fudan University);
- 17:15 A Hybrid BSM — CCBFM Algorithm for Efficient Full-wave Scattering Simulation of Electrically Large Rough Surfaces
Chenghao Cai (Fudan University); Hongxia Ye (Fudan University);

Session 3P3a

Advanced Techniques in PolSAR and PolInSAR Scattering Interpretation and Applications

Thursday PM, July 30, 2026

Room 3 - CR 3

Organized by Junjun Yin, Jian Yang

Chaired by Junjun Yin

- 13:00 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);

- 13:15 **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);
- 13:30 **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);
- 13:45 **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);
- 14:00 **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);
- 14:15 **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); Jianyong 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);
- 14:30 **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);
- 14:45 **Polarimetric Patterns: A Deep Understanding of Polarimetric Scattering Responses**
Junjun Yin (University of Science and Technology Beijing); Jian Yang (Tsinghua University);
- 15:00 **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);
- 15:15 **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);
- 15:30 **Coffee Break**
-
- Session 3P3b**
Theory and Methods for Synthetic Aperture Radar Jamming Based on Time-modulated Metasurfaces
-
- Thursday PM, July 30, 2026**
Room 3 - CR 3
Organized by Huilin Mu, Chang Ding
Chaired by Chang Ding
-
- 16:00 **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);
- 16:15 **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);
- 16:30 **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);

- 16:45 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);
- 00:00 Bipolarized Time-domain Modulated Reconfigurable Electromagnetic Metamaterial Surface
Peizhou Hu (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 Design of Conformal Beam Scanning Leakage Wave Antenna Based on PI
Jiahao Liu (Shenyang Aerospace University); Shuang Ma (Shenyang Aerospace University);
- 14:00 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);
- 14:15 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);
- 14:30 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);
- 14:45 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);
- 15:00 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);
- 15:15 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);

Session 3P4

Recent Advances in Computational Electromagnetics for Forward and Inverse Problems

Thursday PM, July 30, 2026

Room 4 - CR 6

Organized by Dezhi Wang, Fang-Fang Wang

Chaired by Fang-Fang Wang, Yunyun Hu

- 13:00 3D Forward Modeling for DC Resistivity Method Based on Multi-scale Finite Element Algorithm
Yanfu Qi (Chang'an University); Yuhui Zhao (Chang'an University);
- 13:15 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);
- 13:30 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);
- 13:45 Research Progress in Deep Electromagnetic Induction Sounding
Shiwen Li (Jilin University); Aihua Weng (Jilin University); Junhao Guo (Jilin University);

- 15:18 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);
- 15:30 **Coffee Break**
- 16:00 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));
- 16:20 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);
- 16:35 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);
- 16:50 Logging-While-Drilling Electrical Imaging Method in Oil-based Mud
Yunxin Zeng (Southwest Petroleum University); Zhen-guan Wu (Southwest Petroleum University); Ji-ayin Liang (Southwest Petroleum University); Guo-ping Huang (Southwest Petroleum University);
- 17:05 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);
- 17:20 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);
- 17:35 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);

Session 3P5

Optical Coatings for GW Detectors

Thursday PM, July 30, 2026

Room 5 - CR 7

Organized by Innocenzo M. Pinto

Chaired by Innocenzo M. Pinto, Jinlong Zhang

- 13:00 Mirror Coatings for Gravitational-wave Detectors:
 Invited Present Limits and Pathways to Next-generation Performance
Frances Hellman (UC Berkeley); Manel Molina-Ruiz (UC Berkeley);
- 13:20 Crystalline Coatings for Gravitational Wave Detectors:
 Invited Status and Future Prospect
Bin Wu (Syracuse University); Steven Penn (Syracuse University); Stefan Ballmer (Syracuse University);
- 13:40 Optical Coatings for GW Detectors: The Case for Amor-
 Invited phous TiO₂ doped GeO₂ to Engineer Coatings with Low Coating Thermal Noise
Carmen S. Menoni (Colorado State University); Aaron Davenport (Colorado State University); Samuel Castro-Lucas (Colorado State University); Ruth Osovsky-Shpilman (Colorado State University); Sangita Bhowmick (Colorado State University); Ashot S. Markosyan (Stanford University); Martin M. Fejer (Stanford University); F. Schiettekatte (University of Montreal); M. Chicoine (University of Montreal); Rui Zhang (Northeastern University); Jun Jiang (Northeastern University); Hai-Ping Cheng (Northeastern University); Gabriele Vajente (California Institute of Technology); GariLynn Billingsley (California Institute of Technology); Nicholas Demos (Massachusetts Institute of Technology); Slawomir Gras (Massachusetts Institute of Technology (MIT)); Peter Fritschel (California Institute of Technology);

- 14:00 Optical Absorption in Coating Oxides and AI-driven Structure Modeling
Invited *Hai-Ping Cheng (Northeastern University); Jun Jiang (Northeastern University); Ian Berry (Northeastern University); James N. Fry (Northeastern University);*
- 14:20 Photothermal Common-path Interferometry for Ultra-low Optical Absorption Study: New Developments
Invited *Ashot S. Markosyan (Stanford University); Martin M. Fejer (Stanford University);*
- 14:40 Spectroscopic Ellipsometry as R&D Metrology Tool for GWD Dielectric Mirrors
Invited *Michele Magnozzi (Università di Genova); Maurizio Canepa (Università di Genova);*
- 15:00 Direct Measurement of Coating Thermal Noise in High-reflectivity Mirrors for Gravitational-wave Detectors
Invited *Nicholas Demos (Massachusetts Institute of Technology); Slawomir Gras (Massachusetts Institute of Technology (MIT)); Matthew Evans (Massachusetts Institute of Technology); Peter Fritschel (Massachusetts Institute of Technology);*
- 15:30 **Coffee Break**
- 16:00 Status and Trends of the GeNS Instrument for Measuring Mechanical Loss Angles in Thin Optical Films
Invited *Alex Amato (Maastricht University); Maria Assiduo (Università degli Studi di Urbino “Carlo Bo”); Matteo Bischì (Università degli Studi di Urbino “Carlo Bo”); Gianpietro Cagnoli (University of Padova and INFN); Elisabetta Cesarini (INFN — Istituto Nazionale di Fisica Nucleare); Federica Fabrizi (University of Urbino/INFN Firenze); Massimo Granata (LMA (Laboratoire Materiaux Avances - Virgo)); Guido Iandolo (Maastricht University); Matteo Lorenzini (INFN — Istituto Nazionale di Fisica Nucleare); Diana Lumaca (INFN — Istituto Nazionale di Fisica Nucleare); Filippo Martelli (Università degli Studi di Urbino “Carlo Bo”); Luca Massaro (Maastricht University); Lorenzo Mereni (LMA (Laboratoire Materiaux Avances - Virgo)); Matteo Montani (Università degli Studi di Urbino “Carlo Bo”); Francesco Piergiovanni (Università degli Studi di Urbino “Carlo Bo”); Laura Silenzi (Maastricht University); Viola Spagnuolo (Maastricht University); Flavio Travasso (Università di Camerino);*
- 16:20 Mechanical Thermal Noise Exploration with Quadrature Phase Differential Interferometry
Invited *Ludovic Bellon (Ecole Nationale Supérieure); Richard Pedurand (CNRS, ENS de Lyon); Ghaouti Hansali (Ecole Nationale d'Ingenieurs de Saint-Etienne (ENISE)); Vincent Dolique (CNRS, ENS de Lyon); David Hoffmann (Université Claude Bernard Lyon 1); Lorenzo Mereni (LMA (Laboratoire Materiaux Avances - Virgo)); Massimo Granata (LMA (Laboratoire Materiaux Avances - Virgo)); Gianpietro Cagnoli (University of Padova and INFN); Guerino Avallone (Università di Salerno); Veronica Granata (Università di Roma Tre); Vincenzo Pierro (Università del Sannio); Innocenzo Pinto (Istituto Nazionale di Fisica Nucleare);*
- 16:40 Quantized-layer Engineering of High-index Nanolaminates for Low-thermal-noise Optical Coatings
Invited *Jinlong Zhang (Tongji University); Shenghuan Fang (Tongji University);*
- 17:00 Deposition, Characterization and Measurement of Thermal Noise in Nanolayered Silica-Titania Films
Invited *Veronica Granata (Università di Roma Tre); Lorenzo Mereni (LMA (Laboratoire Materiaux Avances - Virgo)); Guerino Avallone (Università di Salerno); Giovanni Carapella (Università di Salerno); Francesco Chiadini (University of Salerno); Riccardo DeSalvo (Università del Sannio); Vincenzo Fiumara (University of Basilicata); Massimo Granata (LMA (Laboratoire Materiaux Avances - Virgo)); Innocenzo M. Pinto (University of Naples Federico II (last affiliation before retirement)); Vincenzo Pierro (Università del Sannio);*
- 17:20 Low-loss Amorphous Dielectric Metasurface Mirror for Precision Optical Applications
Invited *Swadha Pandey (Massachusetts Institute of Technology);*
- 17:40 Fabrication and Characterization of Multi-objective Optimized Ternary Dielectric Mirror Coatings
Guerino Avallone (University of Salerno); Vincenzo Pierro (Università del Sannio); Massimo Granata (LMA (Laboratoire Materiaux Avances — Virgo)); Ch. Michel (Laboratoire des Matériaux Avancés); Nicholas Demos (Massachusetts Institute of Technology); Slawomir Gras (Massachusetts Institute of Technology (MIT)); Matthew Evans (Massachusetts Institute of Technology); D. Forest (Laboratoire des Matériaux Avancés); Veronica Granata (Università di Roma Tre); L. Pinard (Laboratoire des Matériaux Avancés); I. M. Pinto (Italian National Institute of Nuclear Physics (Naples Branch, Salerno Group)); B. Sassolas (Laboratoire des Matériaux Avancés);

Session 3P6

Principles and Mechanisms in Microwave Chemistry

Thursday PM, July 30, 2026

Room 6 - CR 9

Organized by Kama Huang

Chaired by Kama Huang

- 13:00 A Phase-locked Cherenkov-type Oscillator for High Power Microwave Applications
Invited *Jin-Chuan Ju (National University of Defense Technology); Tianzhen Zhao (National University of Defense Technology); Wei Zhang (National University of Defense Technology);*
- 13:20 Enhanced Carbon Dioxide Conversion in Atmospheric Microwave Plasma with Local Electric Field Enhancement
Wei Xiao (Guizhou University); X. Li (Guizhou University);

- 13:35 Electromagnetic Black Hole Enhanced Time Reversal Directional Microwave Heating
Chong Xu (Chongqing University of Technology);
- 13:50 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);
- 14:05 Edge Effect of Periodic Silicon Wafers in Microwaves
Yinhong Liao (Southwest University); Hui Zhang (Southeast University);
- 14:20 Thermal Mechanism of Microwave and Infrared Irradiation on Materials
Xiao Wen Xu (China West Normal University); Zhihao Huang (China West Normal University); Hong Fu (China West Normal University); Hai Zhao (China West Normal University); Dagui Shen (Sichuan Nanchong Shouchuang Technology Development Co., Ltd); G. Shen (Sichuan Nanchong Shouchuang Technology Development Co., Ltd); Zheng-Ming Tang (China West Normal University);
- 14:35 A Compact Coaxial Microwave Exciter for Enhancing Deep-ultraviolet ZnI₂ Lamp Output
Yu Zhong (Chongqing Polytechnic University of Electronic Technology); Kama Huang (Sichuan University);
- 15:30 **Coffee Break**
- 16:00 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);
- 16:15 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);
- 16:30 Metamaterial-assisted Impedance Compression for High-efficiency Microwave Heating of Dynamic Dielectric Loads
Fengming Yang (Chengdu University of Technology);
- 16:45 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);
- 17:00 Macrokinetic Models of Microwave Chemistry
Kama Huang (Sichuan University);
- 17:15 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);

Session 3P7
Advanced Optical and Digital Signal Processing in Optical Communication Networks

Thursday PM, July 30, 2026
Room 7 - CR 10

Organized by Mingming Tan, Tianhua Xu

 Chaired by Feng Wen

13:00 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 Koenigsmann (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);

13:20 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);

13:40 Investigation of the Impairments and Characteristics for High-speed Coherent Optical Communications with the Digital-to-analog Converters Using Analog Multiplexing

Invited

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

14:00 Tbit/s Random Bit Generation with Massively Parallel Chaos

Invited

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

14:20 Toward Integrated Sensing and Communications in All-optical Fiber and Wireless Networks

Invited *Zhouyi Hu (Beijing Jiaotong University);*

14:40 Multidimensional-division-multiplexing Based Optical Transmission

Invited *Jianping Li (Guangdong University of Technology);*

15:00 Optical Integrated Communication, Sensing, and Power Transfer for 6G

Invited *Chen Chen (Chongqing University);*

15:30 **Coffee Break**

16:00 Broadband Integrated Waveguide Optical Parametric Amplification and Its Applications in Optical Communications

Invited *Ping Zhao (Sichuan University);*

16:20 Advanced SMART Techniques for the Hollow-core Fiber Submarine ISAC

Invited *Lin Sun (Soochow University);*

16:40 Enhanced Capacity and Turbulence Resiliency in Mode Division Multiplexing Free-space Optical Communications

Invited *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);*

17:00 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);*

17:20 High-precision Inversion and Physical Simulation of Dynamic Fiber Perturbation Parameters Based on SOP Evolution Trajectories

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

17:40 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);*

18:00 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);

Session 3P8a

Reconfigurable and Programmable Metasurfaces: Physics and Applications 2

Thursday PM, July 30, 2026

Room 8 - CR 11

Organized by Jinhui Shi, Chunmei Ouyang, Wanying Liu

Chaired by Chunying Guan

13:00 Dynamic Reconfigurable Metasurface Based on the Con-
gener Dipoles Huygens Elements

Shicheng Wan (Harbin Engineering University); Ekaterina E. Maslova (ITMO University); Mikhail V. Rybin (ITMO University); Jinhui Shi (Harbin Engineering University);

13:15 Spin Topological Photonic Crystal Devices for On-chip Terahertz 6G Communication

Yu Zhang (Tianjin University); Hongyi Li (Tianjin University); Chunmei Ouyang (Tianjin University);

13:30 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);*

13:50 Recent Advances in GST-based Photonics: From Reconfigurable Metasurfaces to Active Optoelectronic Devices

Invited *Mikhail V. Rybin (ITMO University);*

14:10 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);*

14:30 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);*

14:50 Active Reconfigurable Intelligent Surface Design

Min Li (Tianjin University);

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);*

15:30 **Coffee Break****Session 3P8b****Intelligent Design and Intelligent Control of Electromagnetic Metamaterials****Thursday PM, July 30, 2026****Room 8 - CR 11**

Organized by Ruichao Zhu, Weihai Li

Chaired by Ruichao Zhu, Weihai Li

16:00 Brain Space Time Coding Metasurface for Secure Wireless Interaction
Invited*Qiang Xiao (City University of Hong Kong);*

16:20 Metamaterial-based Designs of Intelligent Electromagnetic Control and Flexible Systems

Weihai Li (University of Macau); Wenxuan Tang (Southeast University); Shaodan Ma (University of Macau);

16:35 Deep-learning-enabled Inverse Design of Symmetry-engineered Geometric-phase Meta-atoms

Kai Qu (Nanjing University); Ke Chen (Nanjing University); Yijun Feng (Nanjing University);

16:50 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);

17:05 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);*17:20 Optofluidic 3D Micro-/Nanofabrication of Multi-material Micromachines
Invited*Mingchao Zhang (National University of Singapore);*

17:40 A Study of DNN-based Design Methods for TTO Devices

*Heng Zhang (National University of Defense Technology); Rui Liu (National University of Defense Technology);***Session 3P9****Nonlinear, Topological Metamaterials and beyond****Thursday PM, July 30, 2026****Room 9 - CR 12**

Organized by Yu Luo, Zhuo Li

Chaired by Hao Hu, Song Zhu

13:00 Emergence and Ultrafast Modulation of Optically Induced Quasi-bound States in the Continuum Resonances
Keynoted *Stefan Alexander Maier (Monash University);*13:30 Elastic Multi-dimensional Security for Wireless Communications Using Space-time Modulated Metamaterial
*Yujie Liu (Nanjing University of Aeronautics and Astronautics); Xiaojian Fu (Southeast University);*13:45 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);*

14:05 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);*14:20 Plasmonic-enhanced Second Harmonic Generation of van der Waals Structures
Invited*Hong Liu (Agency for Science, Technology and Research (A*STAR));*14:40 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);*

15:00 Dynamically Adjustable Finite Barrier Bound States in a Lithium Niobate-based Photonic Crystal

*Yiru Du (Nanjing University of Aeronautics and Astronautics); Zhixiong Xie (Nanjing University of Aeronautics and Astronautics); Hao Hu (Nanjing University of Aeronautics and Astronautics);*15:15 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);*15:35 **Coffee Break**16:00 Coherent Manipulation of Second Harmonic Generation from Bilayer Meta-grating with Radiation Asymmetry
Invited*Ma Luo (Guangdong Polytechnic Normal University);*16:20 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); Hao Hu (Nanjing University of Aeronautics and Astronautics); Yu Luo (Nanjing University of Aeronautics and Astronautics);

- 16:35 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*);
- 16:50 Dual-BIC Mode-coupling Paradigm for Efficient Third-harmonic Generation
Yaohe Li (*Nanjing University of Aeronautics and Astronautics*); Song Zhu (*Nanjing University of Aeronautics and Astronautics*); Yu Luo (*Nanjing University of Aeronautics and Astronautics*);
- 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 Nonlinear Metasurface for HPM Protection Applications
Invited Meijun Qu (*National Key Laboratory of Scattering and Radiation*);
- 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 Hot-electron Super-generators Enabled by Fano Plasmonic Coupling
Peihang Li (*Tsinghua University*); Yue Li (*Tsinghua University*);

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

- 13:00 Sub-femtonewton Force Sensing and Super-resolved Temperature Measuring
Invited Fan Wang (*Beihang University*);
- 13:20 Optical Forces and Torques Unique to Structured Light
Invited Xiaohao Xu (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*);
- 13:40 Optical Manipulation Based on Metasurfaces
Invited Tianyue Li (*The Hong Kong University of Science and Technology*);

- 14:00 Skyrmonic Optical Forces for Stable Separation and Transportation of Chiral Nanoparticles
Invited Peng Shi (*Shenzhen University*);
- 14:20 The Optical Forces Modulated by Electromagnetic Hybridization and Coupling
Xiaoyong Duan (*Jiaxing University*);
- 14:35 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*); Huaqin 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*);
- 14:50 Time-reversal Invariant Topological Photonic Alloy
Ruili Feng (*Shanxi University*); Lei Zhang (*Shanxi University*); Jun Chen (*Shanxi University*);

15:30 **Coffee Break**

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

- 16:00 Optical Metasurface for Multi-dimensional Light Manipulation and Imaging
Invited Yinghui Guo (*Institute of Optics and Electronics, Chinese Academy of Sciences*);
- 16:20 Spatial Light Modulator via Optically Addressed Metasurface
Invited Hui Gao (*Huazhong University of Science and Technology*);
- 16:40 Dielectric Metasurfaces for Compact Optical Imaging
Invited Mingze Liu (*Nanjing University*);
- 17:00 Asymmetric Electromagnetic Manipulation via Multilayered Janus Metasurfaces
Invited Yijia Huang (*Sichuan Normal University*);
- 00:00 Metalens Based High-resolution Microscopy
Invited Gang Chen (*Chongqing University*);
- 00:00 Long Focus Depth Dammann Grating
Invited Wei Zhang (*Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences*);

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

- 13:00 Complex Band Structure and Bound States in the Continuum
Invited *Dezhuan Han (Chongqing University);*
- 13:20 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);
- 13:35 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);
- 13:50 Coherent Thermal Emissions with Vectorial Polarizations
Kaili Sun (Shandong Normal University); Zhanghua Han (Shandong Normal University);
- 14:05 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);*
- 14:25 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);
- 14:40 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);*
- 15:00 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);
- 15:30 **Coffee Break**

Session 3P11b**Technologies and Applications of Terahertz Metamaterials****Thursday PM, July 30, 2026****Room 11 - CR 15**

Organized by Haotian Ling, Yifei Zhang

Chaired by Haotian Ling, Yifei Zhang

- 16:00 Reconfigurable Terahertz Metasurfaces with Graphene
Yifei Zhang (Shandong University);
- 16:15 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); Minggui Wei (Nanyang Technological University); Hiroaki Minamide (RIKEN); Jianguang Han (Tianjin University);
- 16:30 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);
- 16:45 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);
- 17:00 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);

- 17:15 Terahertz EIT Metasurfaces Based on Liquid Crystal Polymer Film
Mengyuan Han (Shandong Normal University); Hao-tian Ling (Aerospace Information Technology University); Xinjie Wang (Shandong University); Yuehong Xu (Aerospace Information Technology University); Jian-ping Qiao (Shandong Normal University); Yifei Zhang (Shandong University);

Session 3P12a

Quantum Information Processing Assisted Quantum Sensing

Thursday PM, July 30, 2026

Room 12 - CR 16

Organized by Jinxian Guo, Xingchang Wang

Chaired by Jinxian Guo

- 13:00 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 Sagana-Stophel (Imperial College London); Anindya Rastogi (Imperial College London); Sarah E. Thomas (Imperial College London); Ian A. Walmsley (Imperial College London);
- 13:20 High-performance Cold-atom Quantum Memory
 Invited
Yunfei Wang (South China Normal University);
- 13:40 Quantum-memory-enhanced Metrology — Spectral Superresolution and Electrometry Robust Against Detection Losses
 Invited
Mateusz Mazelanik (University of Warsaw); S. Kurzynia (University of Warsaw); B. Niewelt (University of Warsaw); W. Wasilewski (University of Warsaw); R. Demkowicz-Dobrzanski (University of Warsaw); M. Parniak (University of Warsaw);
- 14:00 Reaching Heisenberg Scaling in Optical Magnetometry
 Invited with Measurement-induced Correlations as a Quantum Resource
Georg Engelhardt (International Quantum Academy);

- 14:20 Quantum-enhanced Sensing Enabled by Scrambling-induced Genuine Multipartite Entanglement
Guantian Hu (Nanjing University); Wenxuan Zhang (International Quantum Academy); Zhihua 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);

- 14:35 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);
- 14:50 Hybrid Quantum Network for Sensing in the Acoustic Frequency Range
Jun Jia (University of Copenhagen);
- 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);

15:30 Coffee Break

Session 3P12b
Quantum Photonics

Thursday PM, July 30, 2026

Room 12 - CR 16

Organized by Xiaosong Ma, Qin Wang

Chaired by Xiaosong Ma

- 16:00 Topological and Quantum Physics in Optomechanics
 Invited
Haitan Xu (Nanjing University);

- 16:20 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);
- 16:35 Single-shot Phase Quadrature Measurements with Hybrid Nonlinear Interferometry
Marthe Zeja (Humboldt-Universität zu Berlin); Sven Ramelow (Humboldt-Universität zu Berlin);
- 16:50 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);
- 17:05 Quantum Computers Go High-dimensional
Invited Xiaoqin Gao (Nanjing University);
- 17:25 Programmable Cavity-enhanced Telecom Quantum Memory in Thin-film Lithium Niobate
Xiaosong Ma (Nanjing University); Chengdong Yang (Nanjing University);
- 17:40 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));
- 17:55 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);
- 13:20 Quantum Skyrmion Generation and High-dimensional Memory in a Cold-atom Platform
Invited 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);
- 13:40 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 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); Yuxuan Zhou (International Quantum Academy); Yuanzhen Chen (International Quantum Academy); Weijie Guo (International Quantum Academy); Xiaoyu 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);
- 13:55 Quantum Network States and Its Application in Quantum Metrology
Invited Zhen-Peng Xu (Anhui University);
- 14:15 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);
- 14:35 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);
- 14:55 Realization of Dual Type Encoding Protocol in Ion Traps for Quantum Information Processing
Invited Zichao Zhou (Tsinghua University);

Session 3P13a

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

- 13:00 A High-performance Quantum Memory for Quantum Interconnects
Invited Chang Li (South China Normal University);

15:15 Distributed Quantum Codes as Quantum Sensors for
Invited Chip-level Catastrophic Errors
*Xiu-Hao Deng (International Quantum Academy);
Song Zhang (International Quantum Academy);
Guixu Xie (Southern University of Science and Tech-
nology); Jinghan Lu (Southern University of Science
and Technology);*

15:35 **Coffee Break**

Session 3P13b

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

16:00 Certified Randomness from Uncharacterized Source and
Measurement
*Xing Lin (University of Hong Kong); Rong Wang (The
University of Hong Kong); Zhen Qiang Yin (Univer-
sity of Science and Technology of China); Shuang Wang
(University of Science and Technology of China);*

16:15 On-chip Optical Memory Enabled by Bound States in
the Continuum — A Silicon-Erbium Hybrid Platform
Yu-Hui Chen (Beijing Institute of Technology);

16:30 Quantum-enhanced Optical Time-domain Reflectometer
for Hollow-core Fiber Testing
Qi Zhang (Tianfu Jiangxi Laboratory);

16:45 Quantum Teleportation over Hollow-core Fiber Links
*Qiang Zhou (University of Electronic Science and Tech-
nology of China);*

17:00 On-chip Time-bin to Path Encoding Converter via Thin-
film Lithium Niobate Photonics Chip
*Xiaosong Ren (Tsinghua University); Xiaotong Zou (Ts-
inghua University); Xiaole Zhang (Tsinghua University);
Wei Zhang (Tsinghua University);*

17:15 Millimeter-accuracy 3D Quantum Correlation Imaging
of Targets
*Jiandong Chen (Southwest Institute of Technical
Physics); Si Shen (Southwest Institute of Technical
Physics); Mengke Cai (Southwest Institute of Technical
Physics); Zichang Zhang (Southwest Institute of Techni-
cal Physics); Shijie Deng (Southwest Institute of Techni-
cal Physics); Ziji Wang (Southwest Institute of Technical
Physics); Beitong Cheng (Southwest Institute of Techni-
cal Physics); Ruomei Jiang (Southwest Institute of Tech-
nical Physics); Qiang Xu (Southwest Institute of Tech-
nical Physics); Tong Li (Southwest Institute of Techni-
cal Physics); Jing Qiu (Southwest Institute of Technical
Physics); Shuai Huang (Southwest Institute of Technical
Physics); Haizhi Song (Southwest Institute of Technical
Physics & UESTC);*

17:30 Efficient and Broadband Quantum Frequency Comb
Generation in a Monolithic AlGaAs-on-insulator Mi-
croresonator

*Xiaodong Zheng (Nanjing Chip Valley Industrial Tech-
nology Institute, Nanjing Electronic Devices Institute);
Xu Jing (Nanjing Normal University); Chenbo Liu (Nan-
jing Chip Valley Industrial Technology Institute, Nan-
jing Electronic Devices Institute); Yufu Li (Nanjing Elec-
tronic Devices Institute); Runqiu He (Nanjing Chip Val-
ley Industrial Technology Institute, Nanjing Electronic
Devices Institute); Lina Xia (Nanjing Normal Univer-
sity); Fei Wang (Nanjing Chip Valley Industrial Tech-
nology Institute, Nanjing Electronic Devices Institute);
Yuechan Kong (Nanjing Chip Valley Industrial Tech-
nology 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 (Nan-
jing Chip Valley Industrial Technology Institute, Nanjing
Electronic Devices Institute);*

17:45 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);*

18:00 High Temperature Superconducting Nanowire Single
Photon Detector Based on Magnesium Diboride
Xiaofu Zhang ();

18:15 Fully Heterogeneous Quantum Communication Network
*Feng-Yu Lu (University of Science and Technology of
China); Shuang Wang (University of Science and Tech-
nology of China); Zhen Qiang Yin (University of Sci-
ence and Technology of China); Wei Chen (University
of Science and Technology of China); De-Yong He (Uni-
versity of Science and Technology of China); Guang-
Can Guo (University of Science and Technology of
China); Zhengfu Han (University of Science and Tech-
nology of China);*

Session 3P14

Infrared and Terahertz Physics, Devices, and Technologies 1 & 2

Thursday PM, July 30, 2026

Room 14 - CR 18

Organized by Chuantao Zheng, Su Xu, Qun Ren

Chaired by Chuantao Zheng

13:00 Robust Intrinsic Chirality Supported by off- Γ BICs and
Invited Topological Charge Abrupt Change Induced by Topo-
logical Phase Transition

*Chunying Guan (Harbin Engineering University);
Keda Wang (Harbin Engineering University); Jian-
long Liu (Harbin Engineering University); Jinhui Shi
(Harbin Engineering University);*

13:20 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);

13:40 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);

14:00 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);

14:20 Hardware-efficient Real-time DSP: Enabling Long-haul
Invited Photon-assisted Terahertz Transmission
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);

14:40 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);

15:10 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 of 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);

15:30 **Coffee Break**

16:00 Research on Semiconductor Optical Amplifiers and In-
Invited tegrated External-cavity Tunable Lasers

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);

16:20 Photoacoustic Ringdown Spectroscopy for Rapid Hydro-
Invited gen Detection

Weilin Ye (Shantou University); Lifu Duan (Shantou University); Bin Li (Shantou University); Chuangjie Wang (Shantou University);

16:40 On-chip Anti-resonant Waveguide Infrared Gas Sensing
Invited Technology

Mingquan Pi (Jilin University); Yuting Min (Jilin University); Fang Song (Jilin University); Chuantao Zheng (Jilin University);

17:00 Optoelectronic Germanium-based Heterojunctions for
Invited Near-infrared Photodetection and Terahertz Modulation
Dainan Zhang (University of Electronic Science and Technology of China);

- 17:20 Monolithic Plasmonic Metasurface Infrared Detectors
Invited
Shiyu Yang (Shanghai Jiao Tong University); Yaping Dan (Shanghai Jiao Tong University);
- 17:40 Enhanced Spontaneous Polarization in Directional Interlayer Sliding γ -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);
- 17:55 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);
- 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 Terahertz Nonlinear Metasurface for Quantum-Entanglement-Enhanced Edge Extraction Imaging
Qun Ren (Tianjin University); Yongshan Liang (Tianjin University); Xiuyu Wang (Tianjin University); Hao Huang (Tianjin University); Jianquan Yao (Tianjin University); Su Xu (Jilin University); Wei E. I. Sha (Zhejiang University);

Session 3P15

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

Thursday PM, July 30, 2026

Room 15 - CR 19

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

Chaired by Jingsong Huang

- 13:00 High-performance Organic Single-crystal Semiconductors for Optoelectronic Applications
Invited
Jing Feng (Jilin University);
- 13:20 Light-emitting Materials: Perovskite, I-III-VI QDs, and Hyperfluorescent Organics for Next-generation LEDs
Invited
Guojie Wang (University of Science and Technology Beijing);

- 13:40 Improving the Performance of Organic Semiconductor Optoelectronic Devices via a Novel Giant Polyoxomolybdate Bifunctional Interlayer Material
Invited
Jing Qiu (Jilin University); Donal D. C. Bradley (University of Oxford); Jingsong Huang (University of Oxford); Lixin Wu (Jilin University); Fenghong Li (Jilin University);
- 13:40 Solution-processed MicroOLEDs
Invited
Guohua Xie (Xiamen University); Qin Xue (Central China Normal University);
- 14:00 Diketopyrrolopyrrole (DPP)-based Ambipolar OMIECs for Logic Circuits
Invited
Jian Liu (Changchun Institute of Applied Chemistry, Chinese Academy of Sciences);
- 14:20 The Treatment of Self-assembled Monolayers for Efficient and Stable Inverted Perovskite Solar Cells
Invited
Feng Yan (The Hong Kong Polytechnic University);
- 14:40 Efficient Flexible Blue Perovskite Electroluminescence via Surface Crystal Orientation Engineering
Invited
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);

- 15:00 Luminescent Radical Materials and Devices

Invited

Feng Li (Jilin University);

- 15:20 Organic Single-crystal Transistors for Bionic Visual Systems
Invited

Jiansheng Jie (Soochow University);

- 15:40 **Coffee Break**

16:00 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*);
Xiayang 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*);

16:20 Giant Nonlinear Raman Responses from Organic Semi-
Invited conductors

Yi Jiang (*Nanjing University of Posts and Telecommunications*);
Wenyong Lai (*Nanjing University of Posts and Telecommunications*);

16:40 Fabrication and Applications of Multicolor Carbon Dot-
Invited based Lasers

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

17:00 Optical Gain of Organics in the Multilayer Thin-film De-
vices

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*);

17:15 Inorganic Electrochromic Materials and Devices: To-
Invited wards Flexible, Colorful, and Dynamic Optothermal
Regulation

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*);

17:35 Direct Photolithography of Quantum Dots via Pho-
Invited toclick Chemsitry for High-resolution QLEDs

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

17:55 Monochromatic Laser-like Microcavity QLEDs

Invited

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

Session 3P16

Early-career Researchers in Optics and Photonics: Frontier Sources, Materials, and Applications in Communication and Sensing 1 & 2

Thursday PM, July 30, 2026

Room 16 - CR 20

Organized by Tecla Gabbrielli, Jacopo Pelini, Zhen
Wang

Chaired by Zhen Wang, Jacopo Pelini

13:00 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*);

13:20 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*);

13:35 Design and Optimization of a Vibration Insensitive Op-
tical Ring Cavity for CQED Experiments

Enlong Wang (*National University of Defense Technology*);
Xiaojuan Mo (*Hefei University of Technology*);
Sicheng Dai (*Hefei University of Technology*);

13:50 Unveiling Mid-infrared Radiation at the Standard Quan-
tum Limit and Beyond for Sensing and Communication

Tecla Gabbrielli (*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*);

14:05 Laser Spectroscopy Technologies for Deep Space Explo-
Invited ration and Their Applications

Nailiang Cao (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*);

- 14:25 QCL-based Self-mixing Platforms for Communication and Sensing
Chenghong Zhang (CNR-INO, National Institute of Optics); Tecla Gabbrielli (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);
- 14:40 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);
- 15:30 **Coffee Break**
- 16:00 Optical Frequency Combs in Passive Cavities with Novel Dispersion
 Invited *Carlo Silvestri (University of Sydney); C. Martijn de Sterke (University of Sydney); Antoine F. J. Runge (University of Sydney);*
- 16:20 Single-cavity Dual-comb Generation and Terahertz Spectroscopy
 Invited *Jie Chen (Taiyuan University of Technology);*
- 16:40 Integrated 1-Tb/s/ λ 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);
- 16:55 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);
- 17:10 Graphene-based Integrated Microwave Photonics for the Next Generation Sub-THz Links
 Invited *Alberto Montanaro (Consorzio Nazionale Interuniversitario per le Telecomunicazioni);*
- 00:00 In Situ High-precision Measurement of Deep-sea Dissolved Methane Based on Quartz-enhanced Photoacoustic Spectroscopy
 Invited *Mai Hu (Hefei Institutes of Physical Science, Chinese Academy of Sciences);*
- 00:00 Pushing the Limits of Brillouin Microscopy: High Spatiotemporal-resolution Sensing of Biomechanics
 Invited *Fan Yang (Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences.);*
- 00:00 Evidence of Squeezing in Semiconductor Lasers
Daniele Nello (Politecnico di Torino);
-
- Session 3P17a**
Recent Advances in Optical Metasurfaces 2
-
- Thursday PM, July 30, 2026**
Room 17 - CR 25
 Organized by Fei Ding, Cheng Zhang
 Chaired by Fei Ding, Cheng Zhang
-
- 13:00 Physical Unclonable Functions Based on Photonic Crystal Slabs
 Invited *Sen Li (ShanghaiTech University); Guanhong Wang (ShanghaiTech University); Lixian Ding (ShanghaiTech University); Yurui Qu (ShanghaiTech University);*
- 13:20 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);*
- 13:40 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);*

14:00 Metasurface-enabled 3D Imaging and Sensing

Invited

Hao Wang (Beihang University); Bochang Wu (Singapore University of Technology and Design);

14:20 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); Zi-Lan Deng (Jinan University);

14:40 Actively Tunable Hybrid Plasmonic Metasurfaces

Alemayehu Nana Koya (Eastern Institute of Technology); Qing Huo Liu (Eastern Institute of Technology);

14:55 Tailoring Radiation Asymmetry in Vertically-symmetry-broken Bilayer Metagratings

Invited

Ze-Peng Zhuang (Fudan University);

15:15 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));

15:35 Coffee Break

Session 3P17b

Non-Hermitian Optics, Photonics, and Electrodynamics

Thursday PM, July 30, 2026

Room 17 - CR 25

Organized by Minye Yang, Xuetao Gan

Chaired by Minye Yang

16:00 Twisted Light from Topological Chiral Exceptional Points in a Nanolaser Array

Invited

Kaiwen Ji (Université Bordeaux); Melissa Hédier (Laboratoire des Technologies de la Microélectronique, CNRS); Ge Li (College of Staten Island); Ramy A. El-Ganainy (Michigan Technological University); Alejandro M. Yacomotti (Université Bordeaux);

16:20 Multi-dimensional Light Field Manipulation with Optical Metasurfaces: From Free Space to On-chip Integration

Invited

Cheng Zhang (Huazhong University of Science and Technology);

16:40 Anti-parity-time in Spoof Plasmonics

Invited

Junhui Guo (Zhejiang University); Yuanzhen Li (Zhejiang University); Hongsheng Chen (Zhejiang University); Fei Gao (Zhejiang University);

16:43 Implementation and Application of On-chip Nonlinear Photodetectors

Invited

Xiaoqing Chen (Northwestern Polytechnical University); Xuetao Gan (Northwestern Polytechnical University);

17:03 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);

17:18 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);

17:33 Ultrafast Label-free Single-cell Analysis via Transient Dynamics at an Exceptional Point

Jianhui Wu (Zhejiang University); Jikui Luo (Zhejiang University);

17:48 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);

Session 3P18a

Advanced Photonic Technologies for Sensing & Imaging Applications 2

Thursday PM, July 30, 2026

Room 18 - CR 26

Organized by Simone Borri, Weixiong Zhao, Lei Dong, Marco Marangoni

Chaired by Marco Marangoni

13:00 Time-stretch Vibrational Spectroscopy

Invited

Takuro Ideguchi (University of Tokyo);

13:20 Time Domain Near Infrared Optical Tomography for Brain Imaging: Advances and Challenges

Invited

Jingjing Jiang (University Hospital and University of Zurich);

13:40 Hyperspectral Imaging and Microscopy by Fourier Transform Spectroscopy

Invited

Cristian Manzoni (CNR-IFN);

14:00 Rotating Phase Mask Based D2NN for Multi-plane Holographic Display

Qiqi Wang (Tongji University); Jiaxin Yan (Tongji University); Junhe Zhou (Tongji University);

14:15 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);

- 14:30 Compressing Optical Systems with Engineered Space-plates
Ryan Hogan (Nanjing University);
- 14:45 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);
- 15:00 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));
- 15:15 Redbird — Open-source Multi-physics Inverse Problem Solver for Diffuse Optical Tomography and Microwave Tomography
Qianqian Fang (Harvard Medical School);

15:30 **Coffee Break**

Session 3P18b

Chiral Light-matter Interactions in Nonlocal Metasurfaces 3

Thursday PM, July 30, 2026

Room 18 - CR 26

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

Chaired by Maxim V. Gorkunov, Zhanghua Han

- 16:00 Asymmetry-engineered Metasurfaces: A Platform for
Invited Advanced Light-field Control and Sensing
Joel K. W. Yang (Singapore University of Technology and Design);
- 16:20 Circularly Polarized Coherent Thermal Emission with Temperature-driven Helicity Reversal and Wavelength Tunability
Kaili Sun (Shandong Normal University); Zhanghua Han (Shandong Normal University);
- 16:35 Scaling the Functional Density of Resonant Metasurfaces
Invited
Chi Li (Monash University); Stefan Alexander Maier (Monash University); Haoran Ren (Monash University);

- 16:55 Tunable Geometric-phase Metasurface for Active Beam
Invited 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);
- 17:15 Casimir Effect in Twisted Photonic Gratings with In-plane Chirality
Invited
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);
- 17:35 Metasurface-induced Chiroptical Raman Scattering
Invited 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);

Session 3P19

Topological Nanophotonics 2

Thursday PM, July 30, 2026

Room 19 - CR 27

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

Chaired by Zhiwei Guo

- 13:00 Measurement-induced Topology in Photonic Lattices
Invited
Quancheng Liu (Shandong University); Feng Chen (Shandong University);
- 13:20 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);
- 13:40 Fundamental Properties of Surface Polaritons on Low Symmetry Materials
Invited
Xiang Ni (Central South University);
- 14:00 Nanostructured Moiré Superlattices for Laser Beam Steering
Jun Guan (The Chinese University of Hong Kong, Shenzhen);
- 14:15 Hopf Exceptional Points and Hopf Exceptional Rings in
Invited Electric Circuits
Hongwei Jia (Tongji University);

14:35 Topological Type Defects in Photonic Crystal Slabs Fabricated on Si Structures

Margarita V. Stepikhova (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);

14:50 Advanced Near-field Optical Microscopy for the Discovery of Moiré Superlattices and Beyond

Invited *Peng Shi (Shenzhen University);*

15:10 Manipulation of Photonic Topological Edge and Corner States via Trivial Claddings

Invited *Hai-Xiao Wang (Ningbo University);*

15:30 **Coffee Break**

16:00 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);

16:20 Experimental Demonstration of Higher-order Topological Photonic Router

Rui Shi (Tongji University); Zhiwei Guo (Tongji University); Yafeng Chen (Tongji University);

16:35 Topological Power Router Based on Interferometric Control

Menglin L. N. Chen (The University of Hong Kong);

16:50 Optical Skyrmions in Single Microcavities Formed by Photonic Spin-orbit Coupling

Invited *Feng Li (Xi'an Jiaotong University);*

17:10 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));

17:25 Chirality Symmetry Breaking in a Microring with a Dual-mirror System

Invited *Keya Zhou (Harbin Institute of Technology);*

17:45 Programmable Chiral Edge States and Photonic Convolution 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 Spatial Inversion Kramers Degeneracy

Jialu Mu (Hunan University); Biao Yang (National University of Defence Technology); Qinghua Guo (Hunan University);

Session 3P20

Extreme Nanophotonics in Plasmonic Nanostructures and Low-dimensional Systems 2

Thursday PM, July 30, 2026

Room 20 - CR 28

Organized by Wen Chen, Huatian Hu

Chaired by Wen Chen

13:00 Enhancing and Directionally Controlling the Photoluminescence of 2D Materials Using Plasmonic Nanocavities

Invited

Fajun Xiao (Northwestern Polytechnical University);

13:20 Light-matter Interaction in UCNPs in Weak and Strong-coupling Regimes

Invited

Xiaolan Zhong (Beihang University);

13:40 Collective Optomechanical Effects in Metallic Nanocavity-enhanced Raman Scattering

Invited

Yuan Zhang (Zhengzhou University); R. Esteban (Center for Material Physics); S. P. Zhang (Wuhan University); J. Baumberg (Wuhan University); J. Azipurua (Wuhan University);

14:00 Efficient Second Harmonic Generation in a Hybrid Plasmonic Waveguide

Invited

Junjun Shi (Henan University);

14:20 Anisotropic Propagation and Ultrafast Dynamics of Exciton-polaritons

Invited

Jin-Hui Zhong (Southern University of Science and Technology);

14:40 Nanoparticle-on-Mirror Architectures for Local and Remote Spectroscopy

Invited

Yang Li (Shenzhen University); Jingqiao 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);

15:00 Boosting Nonlinear Light Emission with Hybrid Plasmonic Nanocavities

Tianzhu Zhang (Institute of Physics, Henan Academic of Science);

15:15 Room-temperature Strong Exciton-plasmon Coupling in
Invited Two-dimensional Materials
Xiaobo Han (Wuhan Institute of Technology); Kai Wang (Huazhong University of Science and Technology); Peixiang Lu (Huazhong University of Science and Technology);

15:35 **Coffee Break**

16:00 Single-atom Resolution for Surface and Subsurface De-
Invited fects through Tip-enhanced Raman Spectromicroscopy
Yao Zhang (University of Science and Technology of China);

16:20 Extreme Nanophotonics: From Molecular Sensing Plat-
Invited forms to Molecular Optomechanical Upconversion
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);

16:40 Ultrafast Raman Detection of Small Molecules by Plas-
Invited monic Nanopore
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 Khozaymeh 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);

17:00 Nonlinear Linewidth Compression in Micro-rings for En-
hanced 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); Yuqing Jiao (Eindhoven University of Technology); Peter Zijlstra (Eindhoven University of Technology);

17:15 Active Tuning of Near-field Heat Transfer in Graphene
Invited Sheets and Nanoribbons with Drift Currents
Eduardo J. C. Dias (University of Southern Denmark); Joel D. Cox (University of Southern Denmark);

17:35 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 Self-assembled Surface-accessible Plasmonic Nanostruc-
Invited tures for Surface-enhanced Raman Spectroscopy
Yikai Xu (East China University of Science and Technology);

Session 3P21a

Disorder in Photonics 2

Thursday PM, July 30, 2026

Room 21 - CR 29

Organized by Haoran Ren, Changxu Liu

Chaired by Haoran Ren

13:00 Spatiotemporally Structured Light Fields

Invited

Qiwen Zhan (Westlake University);

13:20 Turbulence-resilient Data Transmission Using Steady
Invited Optical Vortex Beam with Extended Focus

Yiqian Yang (Tsinghua University); Liangcai Cao (Tsinghua University);

13:40 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);

14:00 Second-harmonic Wavefront Shaping with Lithium Nio-
Invited bate Metasurfaces

Fei Ding (Eastern Institute of Technology);

14:20 Disordered Metasurfaces for Infrared Silicon Photode-
Invited tectors

Zhaogang Dong (Singapore University of Technology and Design);

14:40 Upconversion Photonics-based Sensing and Imaging

Invited

Fan Wang (Beihang University);

15:00 Harnessing Disorder for Spatiotemporal Coherence and
Invited Robust Optical Catastrophes

Hongtao Wang (Singapore University of Technology and Design);

15:20 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);

15:35 Coffee Break

Session 3P21b

Wave Propagation in Nonlinear and Disordered Media

Thursday PM, July 30, 2026

Room 21 - CR 29

Organized by Wenjun Liu, Ping Fang

Chaired by Ping Fang

16:00 Guiding Waves through Chaos: Universal Bounds for Targeted Mode Transport
 Invited *Cheng-Zhen Wang (Lanzhou University);*

16:20 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);*

16:40 Tailoring Branched Flow of Light in Liquid Crystals
 Invited *Jinhui Chen (Xiamen University);*

17:00 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);*

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);

Session 3P22

Poster Session 7

Thursday PM, July 30, 2026

14:00 PM - 18:00 PM

Poster Area

- 1 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);
- 2 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);
- 3 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);
- 4 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);

- 5 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);
- 6 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);
- 7 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);
- 8 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);
- 9 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);
- 10 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);
- 11 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);
- 12 Broadband Achromatic Metalens for the Short-wave Infrared
Yan He (University of Glasgow); Adetunmise C. Dada (University of Glasgow);
- 13 A Low-cost Dual-vision Framework for Real-time Mobile Manipulation with YOLOv8 Perception and Gesture-based Teleoperation
Azunka N. Ukala (University of Hertfordshire); Adrian Okonkwo (Nile University of Nigeria); Taiwo A. Fasakin (Nile University of Nigeria); Felix Ngobigha (University of Suffolk); Eugene A. Ogbodo (University of Hertfordshire);
- 14 Dihedral Reflector Full-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); Guangzhao Yang (Tsinghua University);
- 15 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);
- 16 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);
- 17 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);
- 18 Physics-guided Microwave Inverse Scattering via Edge-enhanced Multi-frequency Fusion Network with PixelShuffle
Xingbao Zhai (Zhengzhou University); Fazhong Shen (Zhengzhou University);

- 19 Electromagnetic Compatibility Risk Mitigation in Modular Wheelchair Power-assist Kits Using a Supervisory Fail-safe Control Architecture
Abdul-Samad Lawal (Nile University of Nigeria); Azunka N. Ukala (University of Hertfordshire); Okose Divine Ofure (Nile University of Nigeria); Goodnews Eko Michael (Nile University of Nigeria); Felix Ngobigha (University of Suffolk); Martin A. Thomas (University of Hertfordshire, College Lane); Eugene A. Ogbodo (University of Hertfordshire);
- 20 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 Xi-ang (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);
- 21 Tailoring Chiroptical Properties of Large-area Moiré Metamaterials with TiO₂ Nanoantenna Stickers
Jiayang He (Kyoto University); Shunsuke Murai (Kyoto University); Tienyang Lo (Kyoto University); Katsuhisa Tanaka (Kyoto University);
- 22 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);
- 23 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);
- 24 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);
- 25 Harmonic Behavior of the Coupling Coefficient of an Oscillatory Neural Network Based on the Magnetoelectric Composite Structure
Vasilii A. Misilin (Yaroslav-the-Wise Novgorod State University); Roman V. Petrov (Novgorod State University); Aleksandr O. Nikitin (Yaroslav-the-Wise Novgorod State University);
- 26 CSI Technology Introduction and Its Application
Xiuqi Lai (Shanghai University); Xia Zhou (Nokia Shanghai Bell Co., Ltd.); Jingjing Shi (University of Manchester);
- 27 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);
- 28 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);
- 29 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);
- 30 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);

- 31 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.); 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); 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);
- 32 Knowledge Graph-based Electromagnetic Compatibility Analysis for Integrated Electronic System
Jingci Zhang (Jilin University); Hong Jiang (Jilin University); Sen Wang (Jilin University);
- 33 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);
- 34 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);
- 35 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);
- 36 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);
- 37 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);
- 38 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);
- 39 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);
- 40 Advances in SBS-gain-spectrum Widening in Silica-based Optical Fibers through Significant B_2O_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. Zaushtsyna (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);
- 41 Room Temperature Broadband Photodetection with Enhanced Detectivity Based on 2D BP/PtSe₂ 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); Yuyan Zhao (Southwest Institute of Technical Physics); Shuai Huang (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); Mengke Cai (Southwest Institute of Technical Physics); Qian Dai (Southwest Institute of Technical Physics); Bin Liu (Nanjing University); Haizhi Song (Southwest Institute of Technical Physics & UESTC);

- 42 Integrating a GNUradio-based Cognitive Radio Module into the OpenRAN Network
Sergejs Šukšins (Riga Technical University); Roberts Pildavs (Riga Technical University); Aleksandrs Ribalko (Riga Technical University); Jelena Kulikova (Riga Technical University); Arnis Ancans (Riga Technical University); Māris Aleksandrovs (Riga Technical University); Dmitrijs Rjazanovs (Riga Technical University); Elans Grabs (Riga Technical University); Aleksandrs Ipatovs (Riga Technical University);
- 43 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);
- 44 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);
- 45 Silk-based Hybrid Moisture-triboelectric Generators for Self-powered Mechanoreceptor-mimicking Electronic Skin
Shengyou Li (Yonsei University); Cheolmin Park (Yonsei University);
- 46 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);
- 47 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);
- 48 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);
- 49 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 ();
- 50 Analysis of Phase Drift in Outdoor RCS Measurements
Ming Lyu (Science and Technology on Electromagnetic Scattering Laboratory);
- 51 Efficient and High-precision Finite Element Simulation Techniques for Geophysical Electromagnetic Methods
Changkai Qiu (Institute of Geology and Geophysics, Chinese Academy of Sciences);
- 52 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);
- 53 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);
- 54 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);
- 55 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);
- 56 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);
- 57 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); Yuxin Chen (National University of Defense Technology);
- 58 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);
- 59 Multi-modal Detection with Multiplexed Holograms
Sachleen Singh (University of the Witwatersrand); Qixin Zhang (Xidian University); Wenjie Jiang (Xidian University); Ling Cheng (University of the Witwatersrand); Mingjian Cheng (Xidian University); Li-Xin Guo (Xidian University); Andrew Forbes (University of the Witwatersrand);

- 60 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);
- 61 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);
- 62 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);
- 63 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);

Session 4A1a

Computational EM Characterization of Complex Structured Materials

Friday AM, July 31, 2026

Room 1 - CR 1

Organized by Sheng Sun, Ming-Lin Yang

Chaired by Sheng Sun

- 8:00 Single Universal FDTD Method for Electrostatics and Electrodynamics
Eng Leong Tan (Nanyang Technological University);
- 8:15 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);
- 8:30 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);
- 8:45 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);

- 9:00 A Physics-based Equivalent Impedance FDTD Method for Rapid Scattering Analysis of Ceramic Lattices
Zhicheng Xiao (Anhui University); Ming Fang (Anhui University);
- 9:15 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);
- 9:30 Fast EM Simulation of Electrically Large Tunable Metasurfaces
Ming Jiang (University of Electronic Science and Technology of China);
- 10:00 **Coffee Break**

Session 4A1b

Electromagnetics with Artificial Intelligence, Deep Learning, Signal Processing

Friday AM, July 31, 2026

Room 1 - CR 1

Chaired by Hongcai Chen

- 10:30 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);
- 10:45 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);
- 11:00 Super-resolution Source Reconstruction Based on Time-reversal with High-order Kurtosis
Xiao-Yao Feng (Hunan Normal University); Zhizhang (David) Chen (Dalhousie University);
- 11:15 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 (NILPRP)); 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 (NILPRP));

- 11:30 Empowering EM Design with LLM-driven Workflow
Hongcai Chen (Southeast University); Ming Gao (Southeast University); Lingrui Shen (Southeast University); Jiarui Zhong (Southeast University);

Session 4A2a

Electromagnetic/Multi-physics Modeling and Design of Microwave Components Based on Machine Learning Algorithms

Friday AM, July 31, 2026

Room 2 - CR 2

Organized by Li-Ye Xiao, Qi Wu

Chaired by Qi Wu

- 8:00 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);
- 8:15 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);
- 8:15 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);
- 8:30 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);
- 8:45 Supervised Learning of Oscillatory Neural Networks Using Equilibrium Propagation
Dobrosław Pavlovich Egorov (Kotelnikov Institute of Radioengineering and Electronics of RAS); A. R. Safin (Kotelnikov Institute of Radioengineering and Electronics of RAS);

- 9:00 OSIBS: Fast Surrogate-based Multiobjective Optimization for Batch Synthesis of On-chip Deformable Spiral Inductors
Chang Liu (Southeast University); Qi Wu (Southeast University);

- 9:15 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);

- 9:30 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);

10:00 **Coffee Break**

Session 4A2b

Advanced Multiphysics Simulation for RF and Electromagnetic Systems — From Numerical Methods to Intelligent Computing and Their Applications

Friday AM, July 31, 2026

Room 2 - CR 2

Organized by Wei E. I. Sha, Xingang Ren

Chaired by Xingang Ren

- 10:30 A Multi-Fano Channel MIM Waveguide Filter

Invited

Hui Wang (Hefei Normal University); Qiuyu Liang (Hefei Normal University); Zezhi Zhang (Hefei Normal University); Xingang Ren (Anhui University);

- 10:50 Study on CBGA (Ceramic Ball Grid Array) Assembly Reliability under Temperature Cycling Loads and Random Vibration

Invited

Zhaozhao Liu (Anhui University); Wei Jiang (Anhui Changjiang Institute of Metrology & Measurement Metrology Institute); Xingang Ren (Anhui University); Qiang Li (Industry-Education-Research Institute of Advanced Materials and Technology for Integrated Circuits); Ping Li (University of Electronic Science and Technology of China);

- 11:10 Chip Layout Optimization Based on an Adaptive-weight Optimization Algorithm
Jinlong Hu (Anhui University); Jirui Zhang (Anhui University); Silu Wang (Anhui University); Yifan Lv (Anhui University); Jue Wang (Anhui University); Kaikun Niu (Anhui University); Xingang Ren (Anhui University); Zhixiang Huang (Anhui University); Xianliang Wu (Anhui University);
- 11:25 Physical Insight into Cross-band Scattering in Dual-band Shared-aperture Dielectric Resonator Antennas
Xiaoyan Zhao (Anhui University); Gang Wang (Anhui University); Xingang Ren (Anhui University);
- 11:40 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 Dual-band Transmissive Metasurface with Continuously Tunable Phase
Gaonina Zhang (Anhui University); Guanghui Xu (Anhui University); Yong Bo (Anhui University);

Session 4A3a

Remote Sensing and Polarimetry, SAR

Friday AM, July 31, 2026

Room 3 - CR 3

Chaired by Zi He

- 8:00 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);
- 8:15 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);
- 8:30 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);

- 8:45 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);
- 9:00 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);
- 9:15 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);
- 9:30 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);
- 9:45 Fine-grained Landslide Identification Based on MCB-net from Multi-modal Remote Sensing
Yizhan Li (Henan Polytechnic University); Shuanggen Jin (Henan Polytechnic University);
- 10:00 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);
- 10:03 Compound Interference Suppression via ILRSD-ADMM in FDA-MIMO Radar
Qikai Wang (Xidian University); Qihang Xu (Xidian University); Lan Lan (Xidian University);
- 10:06 HRWS SAR Imaging Using Beam Scanning with Vertical Coherent FDA Radar
Hai Huang (Xidian University); Qihang Xu (Xidian University); Lan Lan (Xidian University);
- 10:10 **Coffee Break**

Session 4A3b

Radar and Seismic Imaging, GPR, Inverse Scattering

Friday AM, July 31, 2026

Room 3 - CR 3

Chaired by Erick Baziw, Lilong Zou

- 10:30 NMO-DSTT Tomographic Algorithm Advancements for Geotechnical Site Characterization
Erick Baziw (Baziw Consulting Engineers Ltd.);
- 10:45 3D Object Detection Algorithm Based on GPR Echo Data
Jingpan Jia (Northwestern Polytechnical University); Chenxi Wang (Northwestern Polytechnical University); Zicheng Liu (Northwestern Polytechnical University);
- 11:00 Closed-loop Deep Learning for Airport Pavement Inspection Using Multistatic Ground-penetrating Radar
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);
- 11:15 Cascaded Generative Networks for High-frequency Ground Penetrating Radar Data Reconstruction
Fan Yang (Nanchang University); Shufan Hu (Nanchang University);
- 11:30 Multi-granularity Multimodal Understanding of Remote Sensing Images via Attention-guided Resolution Reallocation
Xianzhi Ma (Nanjing University); Jianhui Li (Nanjing University);
- 11:45 Beyond Data Expert-level Interpretation of the Sustainable Development Goals by AI Agents
Xiaohan Li (Nanjing University); Jianhui Li (Nanjing University);

Session 4A4a

Modeling, Simulation, and Assessment of Electromagnetic Health in Complex Systems

Friday AM, July 31, 2026

Room 4 - CR 6

Organized by Tao Jiang

Chaired by Tao Jiang

- 8:00 Transformer-based Pareto Shape Parameter Estimation and Empirical Model Correction for Sea Clutter
Jialong Han (Harbin Engineering University); Tao Jiang (Harbin Engineering University);
- 8:15 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);
- 8:30 Directed-link-based Probability Assessment of Threshold-exceeding Electromagnetic Interference Events in UAV Swarms
Jialin Shi (Naval Academy of China); Shuaikang Wang (Harbin Engineering University); Zusheng Jin (Naval Research Academy); Tao Jiang (Harbin Engineering University);

- 8:45 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);
- 9:00 A Fast Spatial Domain Anti-intentional Interference Algorithm for Array Communication Based on One-dimensional MUSIC&LCMV-CMT
Zhiling Sun (Harbin Engineering University); Tao Jiang (Harbin Engineering University);

10:00 **Coffee Break**

Session 4A4b

Electromagnetic Research for Computational Innovations by Different Industrial Developments

Friday AM, July 31, 2026

Room 4 - CR 6

Organized by Yuxian Zhang, Naixing Feng

- 10:30 A Subgridding Algorithm for the Hexagonal-mesh-based FDTD
Yichao Jiang (Anhui University); Ke Xu (Anhui University); Ming Fang (Anhui University);
- 10:45 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);
- 11:00 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);
- 11:15 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);
- 11:30 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);

Session 4A5

Antenna and Array: Theory and Applications 2

Friday AM, July 31, 2026

Room 5 - CR 7

Chaired by Libin Sun

- 8:00 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);
- 8:15 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);
- 8:30 A Dual-band Ultra-thin Flexible Antenna for WLAN Applications
Wajeeda Fatima (Tongji University); Jehangir Khan (Tongji University); Mei Song Tong (Tongji University);
- 8:45 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); Wonbin Hong (Pohang University of Science and Technology (POSTECH)); Dazhi Ding (Nanjing University of Science and Technology);
- 9:00 Decoupling-free ECC Reduction for Compact MIMO Antennas Based on Perfect Matching and Phase Orthogonality
Libin Sun (Shanghai Jiaotong University);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 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);
- 11:00 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);

Session 4A6**Microwave Circuits, Systems and Components****Friday AM, July 31, 2026****Room 6 - CR 9**

Chaired by Mário Marques da Silva, Bingyang Liang

- 8:00 Light-load ZVS Control Optimization for Resonant Wireless Power Transfer Systems
Yu Cheng Wang (Shanghai Maritime University);
- 8:15 Pickup Unit Grouping Effects in Multi-phase Variable Reluctance Energy Harvesters
Ye Xu (Mid Sweden University); Mengfei Wu (Mid Sweden University); Bengt Oelmann (Mid Sweden University); Sebastian Bader (Mid Sweden University);
- 8:30 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);
- 8:45 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);
- 9:00 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);
- 9:15 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);
- 9:30 Design of a 60-GHz Zero-IF CMOS Receiver Supporting 802.11ad Protocol
Zeyu Ren (Tsinghua University); Yi Yao (Tsinghua University); Xi Zhu (University of Technology Sydney); Haigang Feng (Tsinghua University);

- 9:45 Design of an RF Touch Sensor Based on Frequency Coding Defected Ground Structures
Peiqin Zhou (Zhejiang University); Zhihui Wang (Zhejiang University); Zhicheng Shi (Zhejiang University); Huilin Bao (Zhejiang University); Jiangtao Huangfu (Zhejiang University);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 Mitigation of Open-stopband in Leaky Coaxial Cables
Kimberly Nguyen (Carleton University); David F. Hardy (Carleton University); Shulabh Gupta (Carleton University);
- 11:00 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);
- 11:15 Parameter Tuning of Virtual Synchronous Generator Based on Improved Grey Wolf Optimizer
Tonghui Xu (Shanghai Maritime University);
- 11:30 Microwave Sensor Based on Parametric Frequency Divider
Lu Yi She (Soochow University); Yuan Quan Cao (Soochow University); Lei Wang (Soochow University); Yunjing Zhang (Soochow University);
- 11:45 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);
- 11:48 A Low-complexity Hybrid SSA-OS-ELM Framework for Digital Predistortion of Wideband Power Amplifiers
Shiyu Xiang (Southeast University); Hongcai Chen (Southeast University);
- 8:00 A Miniaturized Prototype of a Shared-aperture Radar-optical Fusion Imaging System
Invited
Yanwen Jiang (National University of Defense Technology); Hongqi Fan (National University of Defense Technology); Dawei Lu (National University of Defense Technology);
- 8:20 Cyclic Frequency Domain Enhanced Detection Method for Rotary-wing UAVs
Invited
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);
- 8:40 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);
- 8:55 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);
- 9:10 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);
- 9:25 Adaptive Keyframe and Feature Management for Multi-camera Visual Odometry
Yueshang Zhou (National University of Defense Technology); Guoyan Wang (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);
- 9:40 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); Junyan Wang (National University of Defense Technology); Ziyu He (National University of Defense Technology); Aoxu Liu (National University of Defense Technology);
- 10:00 **Coffee Break**

Session 4A7

Advanced Millimeter-wave Radar and Optical Sensor Fusion Technology

Friday AM, July 31, 2026

Room 7 - CR 10

Organized by Yanwen Jiang, Guoyan Wang

Chaired by Yanwen Jiang, Guoyan Wang

- 10:30 Semantic-guided Radar Point Cloud Enhancement Method via Joint Density and Boundary Awareness
Zhengjie Ma (National University of Defence Technology); Yanwen Jiang (National University of Defense Technology); Dawei Lu (National University of Defense Technology); Jun Li (National University of Defense Technology);
- 10:45 Trustworthy Monocular Depth Estimation with Uncertainty
Yixuan Fang (National University of Defense Technology); Guoyan Wang (National University of Defense Technology); Ivan Kruzilov (Moscow Power Engineering Institute); Hongqi Fan (National University of Defense Technology);
- 11:00 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);
- 11:15 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);

Session 4A10a
Innovations and Applications of Microwave Metasurfaces and Antennas

Friday AM, July 31, 2026

Room 10 - CR 13

Organized by Junming Zhao, Bian Wu

Chaired by Junming Zhao

- 8:00 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);
- 8:15 Wideband Frequency Selective Rasorber with Continuously Tunable Transmission Band
Weixi Xu (Xidian University); Kaili Wei (Xidian University); Bian Wu (Xidian University);
- 8:30 Full-space Multi-functional Metasurfaces and Their Application in Array Antenna and 5G Wireless Communication
Invited *Yijun Feng (Nanjing University);*

- 8:50 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);*
- 9:10 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);
- 9:25 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);
- 10:00 **Coffee Break**

Session 4A10b
Multifunctional and Reconfigurable Metasurfaces and Their Applications in Antenna Design

Friday AM, July 31, 2026

Room 10 - CR 13

Organized by Ke Chen, Yueyi Yuan

Chaired by Kai Qu

- 10:30 Glass-substrate Metasurfaces for Optically Transparent High-gain Antenna Applications
Invited *Ziheng Zhou (Fuzhou University); Guirong Feng (Fuzhou University);*
- 10:50 A VO₂-based Column-controllable Multifunctional Terahertz Metasurface
Mengxuan Zhuang (Fudan University); Wenfeng Yao (Fudan University); Yijie Zhang (Fudan University); Guo-Min Yang (Fudan University);
- 10:53 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);
- 11:08 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);*

- 11:28 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);

Session 4A11

Metamaterials, Plasmonics and Complex Media

Friday AM, July 31, 2026

Room 11 - CR 15

Chaired by Jorge Ricardo Mejia-Salazar

- 8:00 Chiral Metasurfaces Based on Laterally Shifted Bilayer Split-ring Resonator
Jéssica Abranches Pinto Ribeiro (National Institute of Telecommunications (Inatel)); Jhon James Hernández-Sárria (National Institute of Telecommunications (Inatel)); Luciano Leonel Mendes (National Institute of Telecommunications — Inatel); Jorge Ricardo Mejia-Salazar (National Institute of Telecommunications (Inatel));
- 8:15 BD-RIS-assisted NOMA-SWIPT for Energy-constrained IoT in 6G Networks
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);
- 8:35 Design and Applications of Transmissive Metasurfaces for Next-generation Wireless Communication
Fengyuan Yang (Shanghai University);
- 8:50 Chiral Bound States in the Continuum Empowered by Twisted Metasurfaces
Min Liu (National University of Defense Technology);
- 9:05 Geometry-driven Competition between Skin Effect and Topological Edge States in Passive Acoustic Structures
Meijuan Liu (Sun Yat-sen University);
- 9:20 Point Dipole Representation for Plasmonic Interactions in Semiconductor Nanoparticles
Zi Wang (Illinois Institute of Technology); Thomas Wong (Illinois Institute of Technology);
- 9:35 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);

10:00 **Coffee Break**

- 10:30 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);
- 10:45 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);
- 11:00 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);
- 11:15 Deep Learning-enhanced Complex Permittivity Characterization of Liquid Crystals via Transfer Learning
Chang Ding (Harbin Institute of Technology); Huilin Mu (Air Force Engineering University);

Session 4A12

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

- 8:00 Spectrally Multiplexed Broadband Integrated Light-matter Interface at 1.5 μm
Invited Qiang Zhou (University of Electronic Science and Technology of China);
- 8:20 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));*

- 8:35 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); Lian-guang Lu (Nanjing Normal University); Bin Niu (Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute);
- 8:50 Quantum Photonic Frequency Processor on Thin-film Lithium Niobate
 Invited *Yan-Xiao Gong (Nanjing University);*
- 9:10 Quantum Light Sources with Configurable Lifetime
 Invited Leveraging Parity-time Symmetry
Yun-Ru Fan (University of Electronic Science and Technology of China);
- 9:30 Experimental Study of Nonlinear Diffraction in PPKTP Crystals
Tao Xie (Hunan Normal University); Rui-Bo Jin (Hunan Normal University);
- 10:00 **Coffee Break**
- 10:30 Broadband Upconversion in Noncritical Phase-matched KTP Crystals
Xiao-Hua Wang (University of Science and Technology of China); Zhi-Yuan Zhou (University of Science and Technology of China);
- 10:45 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);

- 11:00 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);
- 11:15 Generation of Spectrally Pure Photon Pairs via Transverse-mode Quasi-phase Matching on Thin Film Lithium Niobate
Jia-Chen Duan (Nanjing University); Zhenghua Chen (Nanjing University); Mingye Ren (Nanjing University); Jiacheng Cai (Nanjing University); Zhilin Ye (Nanjing University); Shi-Ning Zhu (Nanjing University); Shu-Ming Wang (Nanjing University); Yan-Xiao Gong (Nanjing University);
- 00:00 Preparation of Quantum Light Sources and Their Applications in Quantum Imaging
 Invited *Zhi-Yuan Zhou (University of Science and Technology of China);*

Session 4A13a

Quantum Electromagnetics, Imaging, Sensing

Friday AM, July 31, 2026

Room 13 - CR 17

Chaired by Chao-Fu Wang

- 8:00 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);
- 8:15 Eigenstates of Photon Creation Operator and Negative Energy
Huai-Yu Wang (Tsinghua University);
- 8:30 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);
- 8:45 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));

- 9:00 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);
- 9:15 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 Bobrovs (Riga Technical University); Nir Bar-Gill (Hebrew University of Jerusalem);
- 9:30 Rotman Lens Design Using Factorization Machine and Quantum Annealing
Sanghoek Kim (Kyung Hee University); Yunhee Son (Kyung Hee University);
- 10:00 **Coffee Break**

Session 4A13b

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, Long Zhang

- 10:30 Prototype-to-chip Design of a Silicon Photonic Fiber-optic Gyroscope
Teresa Natale (Polytechnic University of Bari);
- 10:45 Research Progress of Silicon Photonic Gas Sensors
Zhenzhou Cheng (Tianjin University); Zunyue Zhang (Tianjin University);
- 11:00 Hyperuniform Disordered Solids Waveguide Gas Sensor
Si Chen (State Key Laboratory of Precision Measuring Technology and Instruments); Zhenzhou Cheng (Tianjin University);
- 11:15 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);
- 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);

Session 4A14a

Emerging Optical and Photonic Sensors

Friday AM, July 31, 2026

Room 14 - CR 18

Organized by Yongjun Huang, Boyu Fan

Chaired by Boyu Fan

- 8:00 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);
- 8:15 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);
- 8:30 Chalcogenide Glass Heterogeneously Integrated Silicon Photonic Sensors
Qingyang Du (Zhejiang Lab);
- 8:45 TiO₂-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);
- 9:00 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);

- 9:15 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*);
- 9:30 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*);
- 9:45 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*);
- 10:00 Coffee Break
- 10:30 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*);
- 10:45 Asymmetric Metasurfaces for Light-field Sensing and Processing
Zhenchao Liu (*Singapore University of Technology and Design*);
- 11:00 Metasurface-empowered Miniaturized Spectroscopic Systems
Guangcan Zhou (*Hunan University*);
- 11:15 Advanced Multi-functional Silicon On-chip Spectrometers
Long Zhang (*Zhejiang University*);
- 11:35 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*);
- 11:38 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*);

Session 4A15

Optoelectronics, Photovoltaics, and Light Emitting

Friday AM, July 31, 2026

Room 15 - CR 19

Chaired by Nai-Hsiang Sun, Wei Guo

Session 4A14b

Advanced Polarization and Spectral Imaging Techniques

Friday AM, July 31, 2026

Room 14 - CR 18

Organized by Yiting Yu, Tingbiao Guo

Chaired by Tingbiao Guo

- 8:00 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*);

- 8:20 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);
- 8:35 Design and Fabrication of Wrinkled Structures for High-performance Stretchable OLEDs
Da Yin (Jilin University);
- 8:50 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));
- 9:05 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);
- 9:20 Photonic Neural Network Based on Laser Graded Neurons
Yu Huang (Soochow University); Nianqiang Li (Soochow University);
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 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);
- 11:00 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);
- 11:15 Enhancing the Performance of Red Perovskite Light-emitting Diodes by Alkali Metal Regulation
Mairi Zheng (Zhejiang University); Zhixiang Ren (Zhejiang University); Zhenghao Zhao (Zhejiang University); Chen Zou (Zhejiang University); Baodan Zhao (Zhejiang University); Dawei Di (Zhejiang University);
- 11:18 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);

Session 4A16
Optics and Photonics

Friday AM, July 31, 2026

Room 16 - CR 20

Chaired by Ivan G. Savenko, Tao Wang

- 8:00 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));
- 8:15 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);
- 8:30 All-polarization-maintaining Dual-cavity Cascaded Passively Mode-locked Fiber Laser and Its Ultrafast Startup Dynamics
Menghao Fang (Nanjing University); Qianchao Wu (Nanjing University);
- 8:45 Photocatalytic Hybrid Nanostructures for the Degradation of Emerging Pollutants
Andrea Lanfranchi (University of Genova); Riccardo Trevis (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);

- 9:00 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));
- 9:15 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));
- 10:00 **Coffee Break**
- 10:30 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);
- 10:45 Bias-free Functional Terahertz Photoconductive Emitters for Direct Wavefront Engineering
Haidi Qiu (Tianjin University); Xueqian Zhang (Tianjin University); Jianguang Han (Tianjin University);
- 11:00 Design of Quasi-optical Mode Converter for 260-GHz TE_{3,2} 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);
- 11:15 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);
- 1 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);
- 2 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);
- 3 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 Jujie 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);
- 4 Low-profile Antenna Design with AMC Reflector for RFID
Tenghui Cui (Shandong University); Jingyu Li (Shandong University); Junrui Zhang (Shandong University);
- 5 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 Sergeyevich Mikhailov (National Research University "Moscow Power Engineering Institute"); Valery A. Permyakov (National Research University "Moscow Power Engineering Institute");
- 6 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);
- 7 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);

Session 4A22
Poster Session 8

Friday AM, July 31, 2026
9:00 AM - 12:00 AM
Poster Area

- 8 Wideband Filtering Power Divider Based on SIW Resonators
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);
- 9 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);
- 10 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);
- 11 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);
- 12 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);
- 13 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);
- 14 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);
- 15 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);
- 16 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);
- 17 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);
- 18 Emission Imaging for Terrain with Subsurface Anomaly
Dongjin Bai (National Space Science Center, Chinese Academy of Sciences); Saibun Tjautja (University of Texas at Arlington);
- 19 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 (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); An-Ning Zhang (Beijing Institute of Technology); Haizhi Song (Southwest Institute of Technical Physics & UESTC);
- 20 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);
- 21 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);

- 22 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);
- 23 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);
- 24 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);
- 25 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);
- 26 A 2.5–2.9 GHz Low-phase-noise LC-VCO with a Fully Integrated High-PSRR LDO in 0.18- μm 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);
- 27 Noise-driven Co-design of a 2.7–6.2 GHz CMOS LC-VCO with an Integrated Capacitorless Regulator and Bandgap Reference
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);
- 28 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);
- 29 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);
- 30 Spin-locked Edge Transport along Zigzag Domain Walls in an All-dielectric 2D Topological Insulator
Jiangnan Xing (ITMO University); Georgiy Kurganov (ITMO University); Dmitry V. Zhirihin (ITMO University);
- 31 Study of Differentiable Forward Modeling and Optimization for 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);
- 32 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);
- 33 Quasi-static Dispersion Tuning via 3D Printing Infill Ratio in Low-symmetry Hexagonal Photonic Crystals
Ozgur Onder Karakilinc (Pamukkale University);

- 34 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);
- 35 Experimental Observation of the Quantum Boomerang Effect in a Photonic Waveguide Array
Zhaoxin Wu (Zhejiang University); Xiangrui Hou (Zhejiang University); Zhaoju Yang (Zhejiang University);
- 36 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);
- 37 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);
- 38 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); Xiangkun Zhang (National Space Science Center, Chinese Academy of Sciences);
- 39 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 Lyu (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); Xianjun Sun (National Key Laboratory of Scattering and Radiation);
- 40 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);
- 41 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);
- 42 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);
- 43 Analysis of Electromagnetic Coupling Mechanism in Reverberation Chamber for Chip-level Radiated Immunity Testing
Honghai Liu (National University of Defense Technology); Fang Liu (Tianjin Institute of Advanced Technology); Jianfei Wu (National University of Defense Technology); Ledong Chen (National University of Defense Technology); Fukang Niu (National University of Defense Technology);
- 44 Efficient Classical Surrogates for Fermionic Systems
Ya-Dong Wu (Shanghai Jiao Tong University);
- 45 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);
- 46 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);
- 47 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);
- 48 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);
- 49 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);
- 50 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);

- 51 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);
- 52 Adaptive Sum and Difference Beamforming with Low Impact in ‘Canyon Shaped’ Null Regions for Array Monopulse Angle Estimation
Yixin Zhang (National University of Defense Technology); Jiazhi Ma (National University of Defense Technology); Yukai Kong (National University of Defense Technology);
- 53 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);
- 54 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);
- 55 Design and Simulation of Charge Pump Phase-locked Loop
Xin-Hong Liu (Beijing Information Technology College);
- 56 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); Jiaxin Chen (Guangzhou University); Yiyu Pan (Guangzhou University);