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PIERS 2026 Suzhou

PhotonIcs & Electromagnetics Research Symposium

also known as Progress In Electromagnetics Research Symposium

Advance Program

July 27–31, 2026

Suzhou, CHINA

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THE ELECTROMAGNETICS ACADEMY

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

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

TEMA fosters the sharing, dissemination, and discovery of knowledge in photonics and electromagnetics, while facilitating collaborative synergies between mathematicians, physicists, and engineers. It encourages both curiosity-driven research in science and technology-inspired research in engineering. This knowledge contributes to advancing global standards and improving the quality of life worldwide. Additionally, TEMA is committed to mentoring and supporting junior researchers, scientists, and engineers, who will play a pivotal role in shaping the future of technologies related to electromagnetics.

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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Founding President and PIERS Founding Chair

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PIER JOURNALS (WWW.JPIER.ORG)

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

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PhotonIcs & Electromagnetics Research Symposium
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Ying Zuo

SYMPOSIUM VENUE

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

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

REGISTRATION

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

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

SPECIAL EVENTS

Symposium Reception

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

Symposium Banquet

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

PIERS ONLINE

Information on PIERS 2026 Suzhou and future PIERS is posted at www.piers.org.

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 late than 12 hours before the scheduled talk. Presenters are not allowed to detach the session computer and attach their own notebook/laptop to the LCD projector in session room.
- **Presentation Files Format:**
  PDF, Power Point are recommended. Movies or animations in MPEG, Windows Media, and etc, should be tested in PIERS computer in PIERS OFFICE no later than half-day before the session.

  Please pay attention that the size of most screens in session rooms is (2 m $*$ 1.5 m) 16 : 9.
- **USB Disk:**
  Presentation files in USB disk are acceptable by onsite PIERS Computer.
- **Report to Session Chair:**
  Onsite Presenters are required to report to their session chairs at least 10 minutes prior to the start of their session.
- **Talk Limit: 15 minutes (Onsite Oral Talk):**
  All oral presentations, including questions and answers, should be less than the given minutes.
- **DO NOT Change Presentation Sequence:**
  Session Chairs, please be present in the session room at least 15 minutes before the start of the session and must strictly observe the starting time and time limit of each paper and refrain from changing paper presentation sequence.
- **NO Picture Request:**
  When such a request is made by the presenter, the session chair and session helpers will do their best to ensure that no pictures will be taken at the presentation.

Onsite Poster Presentations

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

PIERS 2026 SUZHOU ORGANIZERS AND SPONSORS

Sponsored by:

- Nanjing University
- The Electromagnetics Academy at Zhejiang University

Technically co-sponsored by:

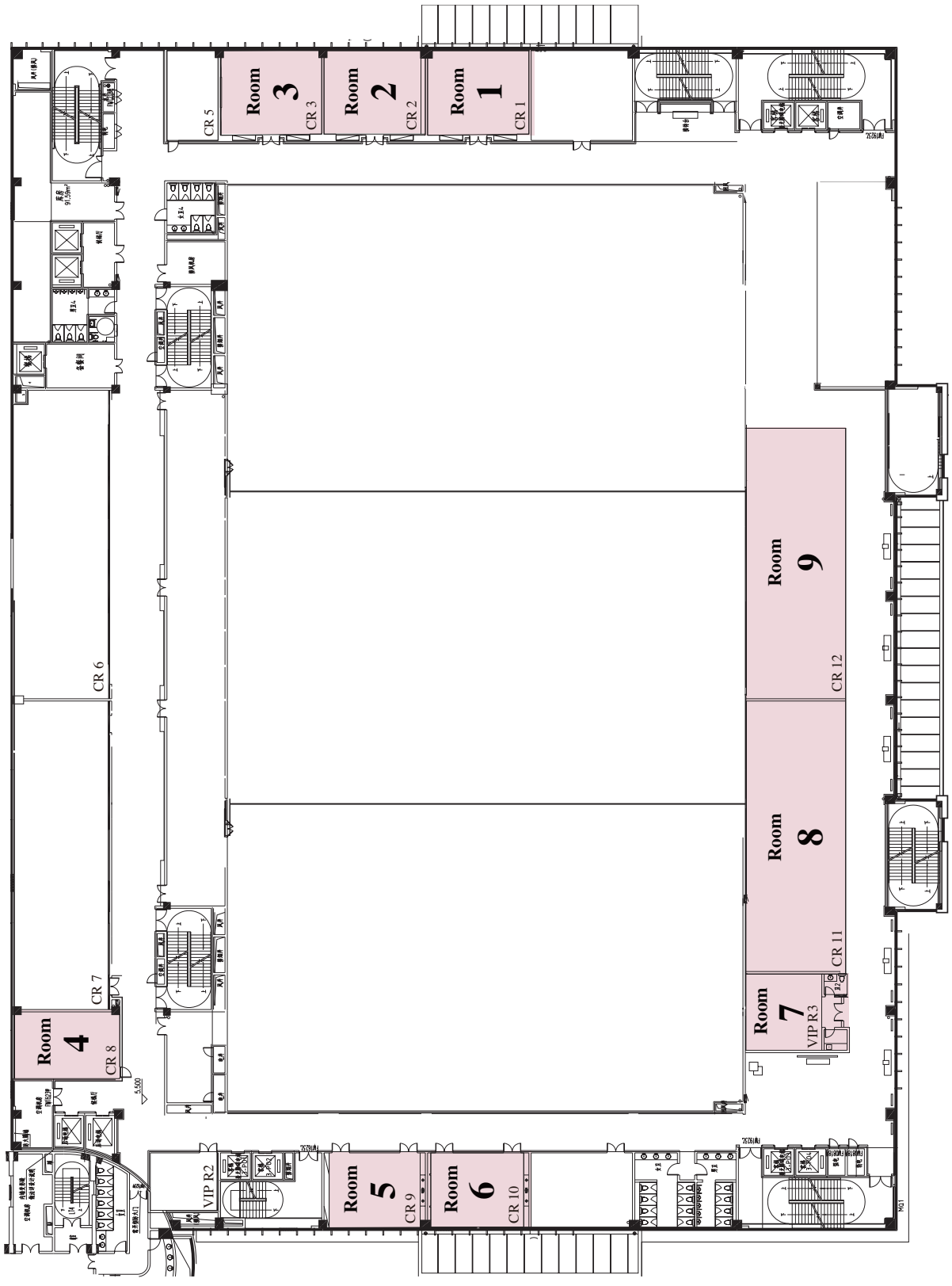
- IEEE Geoscience and Remote Sensing Society (IEEE GRSS)
- IEEE Antennas and Propagation Society (IEEE AP-S)
- IEEE Photonics Society
- The Electromagnetics Academy

Exhibitors:

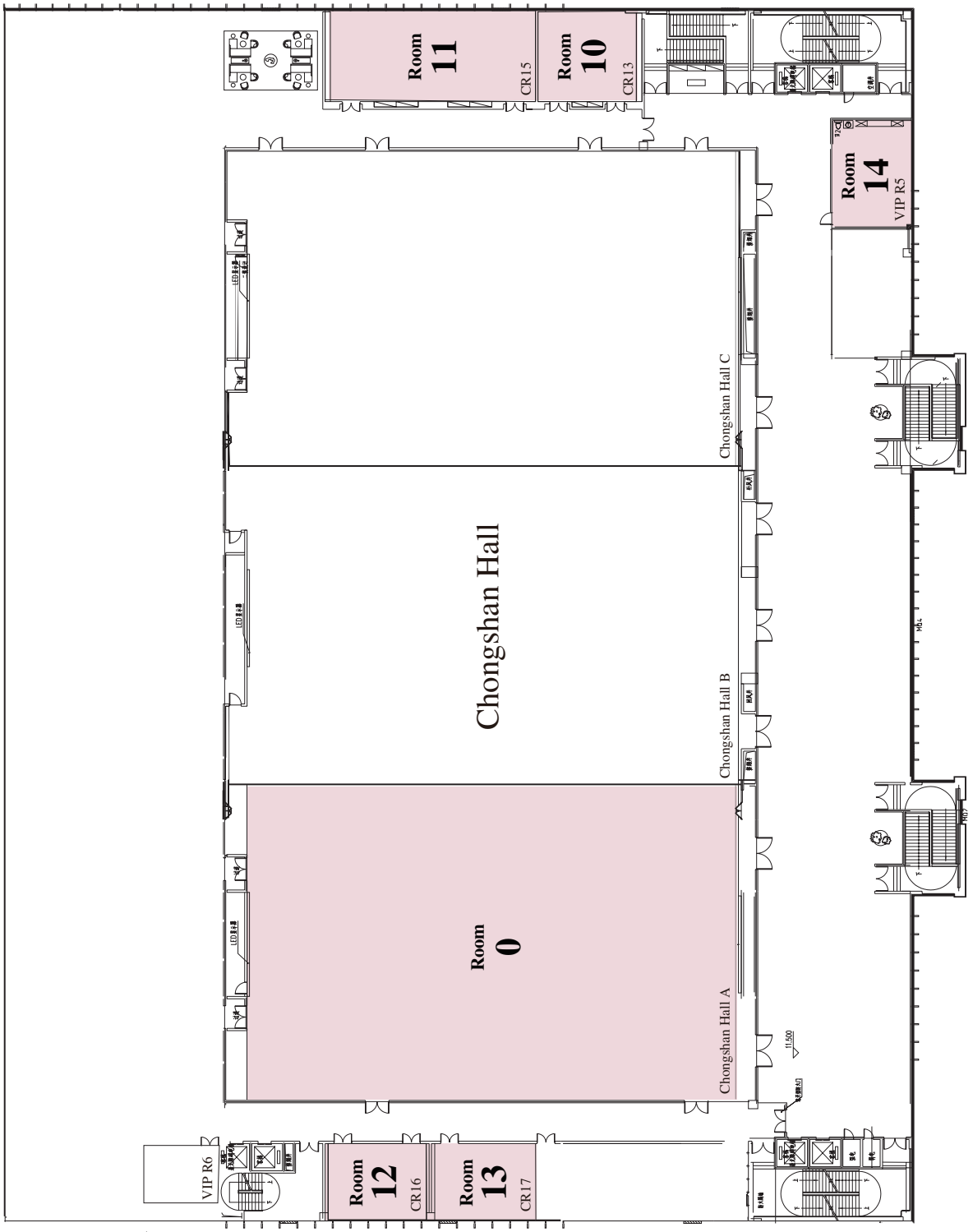
- AIP Publishing
- Shenzhen Linbou NearField Technology Co., Ltd.

凌波近场

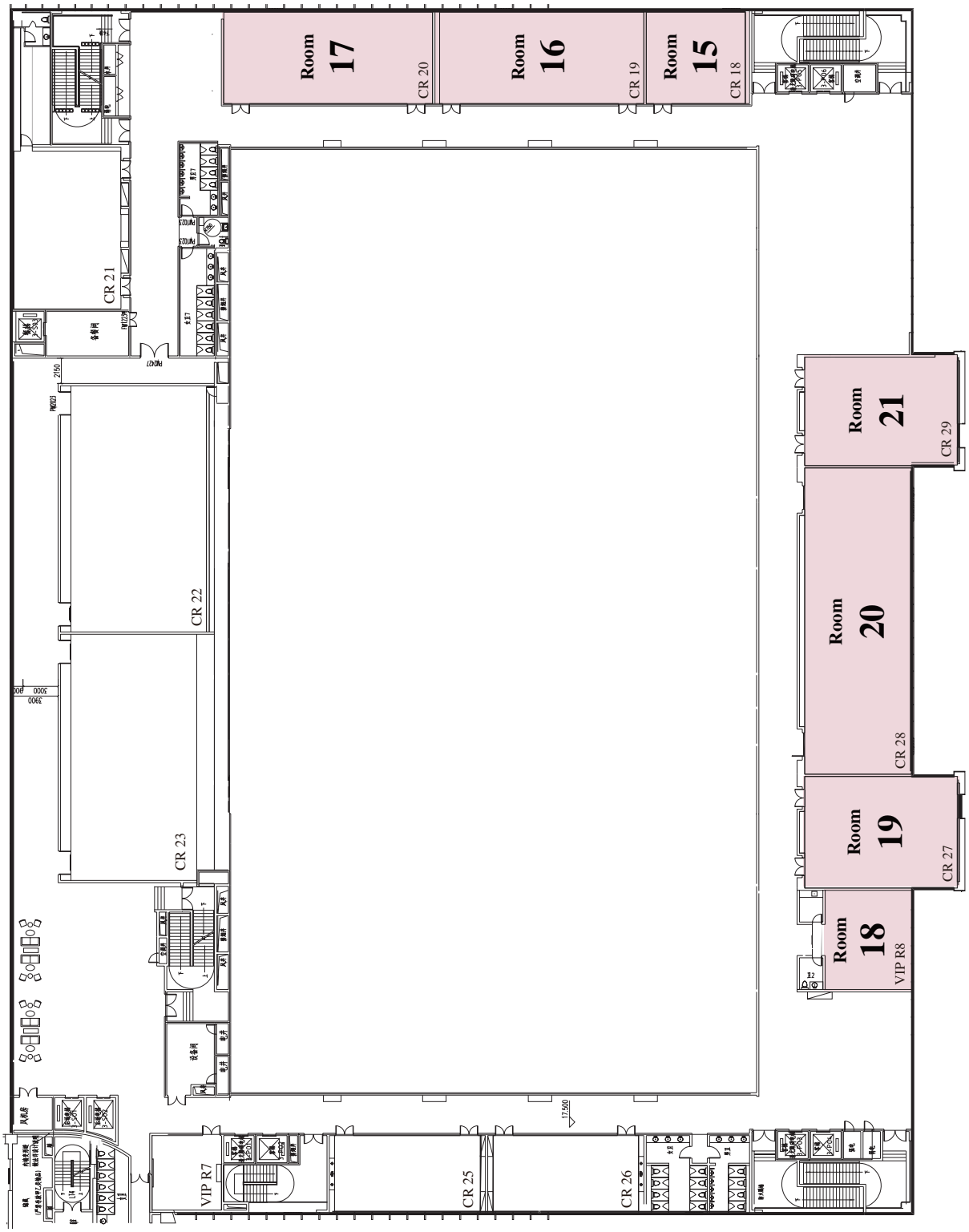
MAP OF CONFERENCE SITE



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 A

Organized by Sailing He

17:00 To Be Decideda
John B. Pendry (Imperial College London);

17:10 To Be Decided
Juergen Popp (Friedrich Schiller University);

17:20 Sustainable Manufacturing of Optical Metasurfaces with Engineered Optical Materials
Junsuk Rho (Pohang University of Science and Technology (POSTECH));

17:30 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);

17:40 Photoacoustic, Light-speed, and Quantum Imaging/Physics
Lihong Wang (California Institute of Technology);

17:50 The Case for Timetronics
Nikolay I. Zheludev (University of Southampton)

18:00 AI in Review Writing: What Is Allowed, What Is Not --- A Nature Reviews Electrical Engineering Perspective
Rachel Pei Chin Won (Nature Reviews Electrical Engineering)

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*);

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-
Invited 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
Hyunkyu 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
Sichao Qu (*The University of Hong Kong*); *Zixun Ge* (*The University of Hong Kong*); *Min Yang* (*Acoustic Metamaterials Group Ltd.*); *Erqian Dong* (*The University of Hong Kong*); *Nicholas Xuanlai Fang* (*The University of Hong Kong*);

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

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

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 Invited Metamaterial Acoustic Impedance Tube for Low-frequency Underwater Acoustic Testing
Nan Gao (*Zhejiang University*);

14:35 Invited Space-time Modulated Metamaterial Cavity for Adaptive Sensing
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*);

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 Invited Slab-coupled Optical Waveguide DFB Lasers for Hybrid Photonic Integration
E. Z. Wang (*Institute of Semiconductors, Chinese Academy of Sciences*); *Pingping Qiu* (*Institute of Semiconductors, Chinese Academy of Sciences*); *G. Cheng* (*Institute of Semiconductors, Chinese Academy of Sciences*); *Hengjie Zhou* (*Institute of Semiconductors, Chinese Academy of Sciences*); *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 Invited Heterogeneously Integrated Semiconductor Optical Amplifier on 220 nm-silicon-on-insulator Platform: A Demonstration and Potential Applications
Yu Zhang (*Huazhong University of Science and Technology*);

16:40 Invited Silicon-based Optical Matrix Integration for High Radix Network Interconnections
Chenhui Li (*Zhejiang University*);

17:00 Invited Hybrid-Integrated Ultra-Narrow Linewidth Laser Based on High-Q Silicon Nitride Double-Archimedean Spiral Resonator
Jin-Long Xiao (*Institute of Semiconductors, Chinese Academy of Sciences*);

17:20 Invited Multicolor Soliton Microcombs in an Integrated Kerr Microresonator
Haizhong Weng (*Trinity College Dublin*);

17:40 Invited The Generation of Microcombs in the High-Q Lithium Niobate Microresonators
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 Invited Chip-integrated Silicon-based Soliton Optical Frequency Comb with High Conversion Efficiency
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*); *Qiyou 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 Invited Mode-locked Lasers with Hybrid Integration of III-V Semiconductor Gain and Lithium Niobate Modulator
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 $\mathbf{16 \times 200}$ Gbps CWDM Optical Interconnects
Yan Zhang (*Zhejiang Lab*); *Zhuo Chen* (*Zhejiang Lab*); *Qingyang Du* (*Zhejiang Lab*); *Bigeng Chen* (*Zhejiang Lab*); *Shaoliang Yu* (*Zhejiang Lab*);

13:50 Inverse-designed Lithium Niobate Photonic Devices for
Invited High-density Chip Integration
Xu Han (*Hefei University of Technology*); *Hu Jiang* (*Hefei University of Technology*);

14:10 CMOS-compatible Integrated AlScN Electro-optic Mi-
Invited croring Modulators
Ting Hu (*Shanghai University*); *Tianqi Xu* (*Shanghai University*);

14:30 High Speed VCSEL for AI Scale-up Optical Inter-
Keynote connects
Connie J. Chang-Hasnain (*The Chinese University of Hong Kong, Shenzhen*);

15:00 Algorithms for Photonics Integrated Circuits: Optimiza-
Invited tion and Implementation
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*);

00:00 Deep Photonic Reservoir Computing Processor and Ap-
Invited plications
Cheng Wang (*ShanghaiTech University*);

00:00 Photonic In-memory Computing
Invited
Zengguang Cheng (*Fudan University*);

Session 0P3b
Optoelectronic Materials and Devices

Monday PM, July 27, 2026

Room 3 - CR 3

Organized by Fang Luo

Chaired by Fang Luo

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 MoS_2: 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 Semi-
Invited conductors and Their Heterostructures
Haitao Chen (*National University of Defense Technology*);

17:30 The Interfacial Thermal Conductance of Graphene/hBN
Invited Heterojunction Devices
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
Feruza Shermatova (*Institute of Ion-Plasma and Laser Technologies*); *Shermakhamat Payziyev* (*Institute of Ion-Plasma and Laser Technologies*); *Abdugappar Kasimov* (*Institute of Ion-Plasma and Laser Technologies*);

00:00 All-solid Passive Organic Optical Limiter via Coordination-bond Anchoring Strategy
Dan Chen (*National University of Defense Technology*); *Yuang Chen* (*National University of Defense Technology*); *Yunming Wang* (*Huazhong University of Science and Technology*); *Qingwei Zhou* (*National University of Defense Technology*); *Fang Luo* (*National University of Defense Technology*); *Jinbao Jiang* (*National University of Defense Technology*); *Chunrui Wang* (*Changchun Institute of Optics, Fine Mechanics and Physica, 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*);

00:00 Europium-doped GaN towards High-color-purity Red Light Emitters
Shizhao Fan (*Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS)*);

00:00 Recent Breakthroughs in Photon and Carrier Management for Perovskite/Silicon Tandem Cells
Zhiqin Ying (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences (CAS)*); *Jichun Ye* (*Ningbo Institute of Material Technology and Engineering, Chinese Academy of Sciences*);

00:00 Semiconductor Microlasers Based on Deformed High-Q Resonators
Natalia Kryzhanovskaya (*HSE University*); *Eduard I. Moiseev* (*HSE University*); *Anna A. Obraztsova* (*HSE University*); *Igor S. Fedosov* (*HSE University*); *Konstanitn A. Ivanov* (*HSE University*); *Ivan S. Makhov* (*HSE University*); *Antonina A. Pivovarova* (*Ioffe Institute*); *Natalya D. Ilyinskaya* (*Ioffe Institute*); *Alexey E. Zhukov* (*HSE University*);

Session 0P4a
Electromagnetic Theory, Scattering, EMC

Monday PM, July 27, 2026

Room 4 - CR 8

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*); *Dinfeng Yu* (*Wuhan Institute of Technology*); *Minghu Wu* (*Hubei University of Technology*); *Yunhua Zhang* (*Wuchang 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 Communications Systems using the Semi-physical Simulation System
Rongwei Zhang (*Zhejiang University*); *Kai Mei* (*Northwest Institute of Nuclear Technology*); *Hailong Kong* (*Northwest Institute of Nuclear Technology*); *Kai Qiang* (*Northwest Institute of Nuclear Technology*); *Shufen He* (*Northwest Institute of Nuclear Technology*);

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*);

00:00 Electromagnetic Characterization of PTFE in the S-band Using the NRW Method in a Non-standard Waveguide
Alejandro Trejo León (*Sección de Estudios de Posgrado e Investigación*); *Fabiola Martínez-Zúñiga* (*Instituto Politecnico Nacional*); *Jorge Roberto Sosa-Pedroza* (*Instituto Politecnico Nacional*);

00:00 Electromagnetic Scattering by an Impedance Elliptic Cylinder Embedded in a Metafilm
Mohamed A. Salem (*Sonoma State University*);

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

Monday PM, July 27, 2026

Room 4 - CR 8

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-
Invited electric Wave with a Modulation Wave of a Magnetodielectric Plate in a Waveguide
Eduard A. Gevorkyan (*Moscow Witte University*);

16:40 A Theorem on the Dr. Mariana N. Georgieva's Complex
Invited $\mathbf{M_1}(\mathbf{p}, \mathbf{c}, \mathbf{n})$ Numbers
Georgi Nikolov Georgiev (*Consulting and Researcher in Physics, Mathematics and Computer Sciences*); *Mariana Nikolova Georgieva-Grosse* (*Consulting and Researcher in Physics, Mathematics and Computer Sciences*);

17:00 An Infinite Wave Propagation Speed Attainable Independently of Source Functions: Part (I)
Namik Yener (*Istanbul 29 Mayis 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*);

00:00 Soliton Interactions in Maxwell-Bloch System
Sitai Li (*Xiamen University*);

Session 0P5a
Optical Wireless Communication

Monday PM, July 27, 2026

Room 5 - CR 9

Organized by Chao Shen, Chao Fei

Chaired by Chao Shen, Chao Fei

13:00 Invited Development of High-efficiency AlGaN Deep UV LEDs 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 Invited High-fidelity Frequency Response Prediction of GaN-based Laser Diodes Directly from Epitaxial Architectures Using Deep Neural Networks
Yuheng Zou (*Fudan University*); *Bohan Xiao* (*Fudan University*); *Chao Shen* (*Fudan University*);

13:55 Invited High Speed Tricolor Laser Diodes Based White Visible 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* (); *Jiahan 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 Opposite in Sign OAM and Different Polarization Structure from Intensity Distributions in Turbulent Atmosphere by Neural Networks
Egor Andreevich Bogach (*V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)*); *Egor V. Adamov* (*V. E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Science (IAO SB RAS)*); *Vadim V. Dudorov* (*V. E. Zuev Institute of Atmospheric Optics, SB RAS*); *Valeriy V. Kolosov* (*V. E. Zuev Institute of Atmospheric Optics, SB RAS*);

14:30 Invited Low-latency Integrated Visible Light Communication and Sensing Network for Real-time Interactive Theatrical Storytelling
Zetao Wu (*Chinese National Academy of Arts*);

14:50 Invited Cooperative State Estimation via Optical Motion Capture and Free-space Optical Feedback for Embodied Narratives in Future Theater
Zetao Wu (*Chinese National Academy of Arts*);

15:10 Invited Real Time High Speed Underwater Optical Wireless Communication System Based on G.hn and 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*);

00:00 Invited Omnidirectional Optical Base Stations Enabling Underwater Wireless Optical Cellular Networks
Jiaming Lin (*Tsinghua University*); *Lu Wang* (*Tsinghua University*); *Shuanghe Liu* (*Tsinghua University*); *Tongzheng Sun* (*Tsinghua University*); *Yuhan Dong* (*Tsinghua University*);

00:00 Integrating Center-based Detection and Lane-aware Transformers for Robust Trajectory Prediction in Autonomous Driving
Tongzheng Sun (*Tsinghua University*); *Shuanghe Liu* (*Tsinghua University*); *Yuhan Dong* (*Tsinghua University*);

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

Monday PM, July 27, 2026

Room 5 - CR 9

Organized by Hasan Tahir Abbas, Muhammad Zubair

Chaired by Hasan Tahir Abbas

16:00 Understanding the Role of Temporal Dynamics in Fluorescence-detected Mid-infrared Photothermal Microscopy
Sahil Sharma (*Indian Institute of Technology Delhi*); *Joby Joseph* (*Indian Institute of Technology*); *Balpreet Singh Ahluwalia* (*UiT — The Arctic University of Norway*); *Muhammad Ali Imran* (*University of Glasgow*); *Douglas J. Paul* (*University of Glasgow*); *Kevin Gallacher* (*University of Glasgow*); *Qammer H. Abbasi* (*University of Glasgow*); *Jonathan Taylor* (*University of Glasgow*); *Hasan Tahir Abbas* (*University of Glasgow*);

16:15 Ultrahigh-frequency Surface Acoustic Waves Generation through Laser Pulse Excited Gold Nanoparticles and Its Observation
Muhammad Usman (*Nanjing University of Science and Technology*); *Jichuan Xiong* (*Nanjing University of Science and Technology*);

16:30 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)*);

16:45 Over-the-Air Calibration of 6G Phased Arrays Challenges and Potential Solutions
Fengchun Zhang (*Aalborg University*); *Wei Fan* (*Southeast University*);

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

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

Session 0P6a
Advances in Biophotonics 1

Monday PM, July 27, 2026

Room 6 - CR 10

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*);

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

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

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

Session 0P6b
Advances in Biophotonics 2

Monday PM, July 27, 2026

Room 6 - CR 10

Organized by Fan Wang, Xiaolan Zhong

Chaired by Fan Wang, Xiaolan Zhong

16:00 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*);

16:20 Gradient Boosting Decision Trees Enable High-quality Super-resolution Microscopic Imaging Screening
Zhiping Zeng (*Fuzhou University*); *Xiying Ren* (*Fuzhou University*); *Xinyi Chen* (*Fuzhou University*); *Biqing Xu* (*Fuzhou University*);

16:35 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*);

16:55 High-fidelity Imaging of Living Brains and Eyes
Invited
Qinrong Zhang (*City University of Hong Kong*);

17:15 Ultrarapid Deep 3D Histology with Cleared Stimulated
Invited Raman Imaging and Unsupervised Learning
Zhijie Liu (*Fudan University*); *Yingying Li* (*Fudan University*); *Lingchao Chen* (*Fudan University*); *Minbiao Ji* (*Fudan University*); *Lixue Shi* (*Fudan University*);

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

Monday PM, July 27, 2026

Room 7 - VIP R3

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*); *Paerhatijiang 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*);

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/SiO_2 Heterostructure with Nanoindented Metasurface
Gaoyuan Wang (*Fudan University*); *Zhihao Cai* (*Fudan University*); *Mengyuan Tang* (*Fudan University*); *Hongyu Tang* (*Fudan University*);

13:24 Multifunctional 2-bit VO_2-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 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*);

13:33 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*);

13:36 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*);

13:39 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*);

13:42 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*);

13:45 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*);

13:48 Piezoelectrically Compensated Ta_2O_5 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 Technolog*); *Qiancheng Zhao* (*Southern University of Science and Technology*);

13:51 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*);

13:54 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*);

13:57 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*);

14:00 Transmission Coil Separation Distance in Exposure Limited Wireless Power Transfer Design
Hendrick Lim (*The University of Auckland*); *Robert Gallichan* (*The University of Auckland*); *David M. Budgett* (*The University of Auckland*); *Daniel McCormick* (*The University of Auckland*);

14:03 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*);

14:06 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*);

14:09 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*);

14:12 Generalized SVA for 3-D Near-field Cross-MIMO Imaging
Yifan Gong (*National Space Science Center, Chinese Academy of Sciences*); *Limin Zhai* (*National Space Science Center, Chinese Academy of Sciences*); *Xiangkun Zhang* (*National Space Science Center, Chinese Academy of Sciences*);

14:15 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*);

14:18 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*);

14:21 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*);

14:24 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*);

14:27 Enhancing RF Magnetometry via Spin Amplification
Yufan Niu (*Fudan University*); *Yanhong Xiao* (*Fudan University*);

14:30 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*);

14:33 Dirac-engineered Photonic Crystals for Energy-sensitive Transition Radiation at Brewster Angles
Vigen Gareyan (*Alikhanyan National Laboratory*);

14:36 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*);

14:39 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*);

14:42 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*);

14:45 Online Temperature Monitoring Technique for Fiber Lasers Based on Multimode Fiber Speckle Demodulation
Junjie Wang (*Nantong University*); *Rumao Tao* (*Laser Fusion Research Center, China Academy of Engineering Physics*); *Xiaojun Zhu* (*Soochow University*);

14:48 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*); *Daniils Aleksandrovs-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*);

14:51 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*);

14:54 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 Institude of Technology*); *You Li* (*Beijing Institute of Technology*); *Kunao Li* (*Beijing Institute of Technology*); *Tian Lan* (*Beijing Institute of Technology*);

14:57 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*);

15:00 Reconfigurable Liquid Crystal Physical Unclonable Function Device
Hong-Xing Wen (*Xiamen University*); *Jinhui Chen* (*Xiamen University*);

15:03 Sb_2S_3 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*);

15:06 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*);

15:09 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*);

15:12 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"*);

15:15 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*);

15:18 Design of a Compact Rectangular Microstrip Patch Antenna Array for Modern 5G/6G Wireless Communication Systems
Hind Abbaoui (*Cadi Ayyad University*); *Salah Eddine El Aoud* (*Cadi Ayyad University*); *Fatima Ez-Zaki* (*Cadi Ayyad University*); *Abdelilah Ghammaz* (*Cadi Ayyad University*); *Hassan Belahrach* (*Royal School of Aeronautics*); *Saida Ibnyaich* (*Cadi Ayyad University*);

Session 0P7b
Advancing Photonics with Gender Diversity

Monday PM, July 27, 2026
Room 7 - VIP R3
Organized by Yiwei Xie, Shuxia Guo
Chaired by Shuxia Guo

16:00 Invited Raman Microscopy and Spectroscopy for Biomedical Applications
Jing Huang (*South China Normal University*);

16:20 Label-free Infrared Spectroscopy for Early Detection of Pediatric Lipid Metabolism Disorders
Leiying Xie (*Zhejiang University*); *Yingke Xu* (*Zhejiang University*);

16:35 Invited Machine Learning and Deep Learning Approaches for Raman Spectral Analysis
Jamile Jafari (*Leibniz Institute of Photonic Technology*); *Thomas Bocklitz* (*Leibniz Institute of Photonic Technology*);

16:55 Invited Degradation Compensation for Single-pixel Imaging in Practical Scenarios
Zihan Geng (*Tsinghua University*);

17:15 Invited Transferable Modelling in Raman Spectroscopy
Shuxia Guo (*Leibniz Institute of Photonic Technology (Leibniz-IPHT)*); *Thomas Bocklitz* (*Leibniz Institute of Photonic Technology*);

17:35 Invited Correlative Photothermal Infrared Imaging of Amyloids in Cells and Tissues
Oxana Klementieva (*Lund University*);

00:00 Invited Compact and Broadband Thin-film Lithium Niobate Fast Quasi-adiabatic Devices
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*);

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

13:30 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*);

13:45 Closed-loop Self-calibration of Quantized Programmable Metasurfaces for Robust Adaptive Electromagnetic Wave Control
Eunice Oluwabunmi Owoola (*Shandong Agricultural University*);

14:00 Broadband Electromagnetic Invisibility Enabled by Delay Line-based Wavefront Control
Yitian Huang (*Zhejiang University*); *Jiwei Zhao* (*Zhejiang University*); *Huan Lu* (*Zhejiang University*); *Bin Zheng* (*Zhejiang University*);

14:15 All-metal Polarization-twisting Metasurface for Millimeter-wave Applications
Zixuan Zhang (*Shenzhen University*); *Xue Ren* (*Shenzhen University*);

14:30 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*);

14:45 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*);

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 A Polarization-insensitive Ultra-wideband Terahertz Absorber Based on a Symmetric VO_2 Resonant Cell
Qinkai Li (*Ningxia University*); *Hongshun Liu* (*North Minzu University*); *Xuehong Sun* (*Ningxia University*); *Caiyan Jiang* (*Ningxia University*);

16:00 Broadband Electromagnetic Invisibility Enabled by Delay-line-based Wavefront Control
Yitian Huang (*Zhejiang University*); *Bin Zheng* (*Zhejiang University*);

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

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

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

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

17:05 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*);

17:08 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*);

17:11 A Random Search Optimization Algorithm Based on Taylor Weighting for Beam Steering of Specific Harmonic in 2-bit Space-time-coding Metasurface
Yi Fei Huang (*Southeast University*); *Yi Bo Zhao* (*Henan University of Science and Technology*); *Cun Yue Wei* (*Hohai University*); *Pei Hang He* (*Southeast University*); *Hao Chi Zhang* (*Southeast University*);

00:00 A Novel Optically and Electromagnetically Transparent Multifunctional Huygens' Metasurface
Siyuan Wang (*Xi'an Jiaotong-Liverpool University*); *Rui Yuan Wu* (*Hohai University*);

17:41 A Circularly Polarized Antenna for Millimeter-Wave Applications
Shihao Tian (*Jimei University*); *Jing Wu* (*Jimei University*); *Jun Xiao* (*Jimei University*); *Qiubo Ye* (*Hohai University*);

17:56 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*);

17:59 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

00:00 Acoustic Bilayer Moiré Metasurfaces
Invited
Tianzhi Yang (*Northeastern University*);

13:20 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*);

13:35 Protocol-driven Control of Acoustic Waves
Invited
Zeguo Chen (*Hong Kong Baptist University*);

00:00 Realization of Topological Bound States in the Continuum in Acoustic Crystals
Invited
Zhongming Gu (*Tongji University*);

14:15 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*);

14:35 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*);

14:55 Anomalous Collision of Exceptional Points on Nonorientable Manifolds
Invited
Qicheng Zhang (*Wuhan University*);

15:15 Multistable Dynamics in a Nonlinearly Coupled Acoustical Cavity System
Invited
Zhaoxian Chen (*Nanjing University*);

16:00 Orbital Hybridization Endowed Topological Insulators
Feng Gao (*Soochow University*);

16:15 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*);

16:30 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*);

16:45 Invited Three-dimensional Topological Disclination in Acoustic Crystals
Zhenxiao Zhu (*Beijing Institute of Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

00:00 Invited On-chip Elastic Wave Manipulations Based on Synthetic Dimension
Zhenxing Cui (*Zhengzhou University*); *Chaohua Wu* (*Zhengzhou University*); *Qiang Wei* (*Zhengzhou University*); *Mou Yan* (*Zhengzhou University*); *Gang Chen* (*Zhengzhou University*);

17:25 Invited Directional Sound Transport via Topological Multimode Interference in Heterostructure Sonic Crystal
Zhi-Guo Geng (*Zhejiang Normal university*);

17:45 Experimental Observation of Non-Hermitian Phase Transitions Using Laser-induced Thermoacoustics
Haixiao Zhang (*Changzhou Institute of Technology*); *Wei Xiong* (*Nanjing University*); *Ying Cheng* (*Nanjing University*); *Xiaojun Liu* (*Nanjing University*); *Johan Christensen* (*IMDEA Materials Institute*);

18:00 Lossy Phononic Metamaterials for Valley Nonreciprocity
Shunda Yin (*Wuhan University*); *Qiuyan Zhou* (*Wuhan University*); *Yuxiang Xi* (*Wuhan University*); *Weiyin Deng* (*Wuhan University*); *Wei Chen* (*Nanjing University*); *Jiuyang Lu* (*Wuhan University*); *Manzhu Ke* (*Wuhan University*); *Zhengyou Liu* (*Wuhan University*);

18:15 Two Distinct Anomalous Localization Effects in Non-Hermitian Acoustic Lattices
Chengwu Ji (*Jiangnan University*); *Bolun Hu* (*Jiangnan 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

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 University*); *Qian Ma* (*Southeast University*); *Jian Wei You* (*Southeast University*);

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

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

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

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

14:15 Orbital Angular Momentum-based Metasurfaces for Scattering Manipulation
Qi Zheng (*Shanghai University*); *Zhenyu Pan* (*Shanghai University*); *Junyu Ren* (*Northwestern Polytechnical University*); *Xiaoyan Pang* (*Northwestern Polytechnical University*); *Xiaotong Li* (*Pohang University of Science and Technology (POSTECH)*); *Xiaobei Zhang* (*Shanghai University*);

14:30 Compactly Integrated Metalens for Dual-mode Wavefront Manipulation
Xiaoyan Pang (*Northwestern Polytechnical University*); *Mingze Hu* (*Northwestern Polytechnical University*); *Junyu Ren* (*Northwestern Polytechnical University*); *Qi Zheng* (*Shanghai University*);

14:45 Generation and Applications of Vortex Beams with Multiple Physical Degrees of Freedom
Zixuan Zhang (*Peking University*); *Xuefan Yin* (*Peking University*); *Nianyuan Lv* (*Peking University*); *Ye Chen* (*Peking University*); *Chao Peng* (*Peking University*);

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

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 Metasurface for Broadband P-band Absorption and RCS Reduction
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*);

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

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*); *Zuojia 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*);

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 Invited Property Customization by Digital and Physical Intelligence for Mechanical Metamaterials
Yuli Chen (*Beihang University*);

13:20 Invited Topologically Protected Soft Modes in Isostatic Mechanical Metamaterials
Di Zhou (*Beijing Institute of Technology*);

13:40 Invited Flexible Network Materials and Their Applications in Bio-integrated Devices
Yihui Zhang (*Tsinghua University*);

14:00 Invited Observation of Topological Edge Modes in a Rotating Mechanical Metamaterial
Motonobu Tomoda (*Oita University*); *K. Yamaguchi* (*Hokkaido University*); *G. Yoon* (*Hokkaido University*); *O. Matsuda* (*Hokkaido University*); *Oliver B. Wright* (*Hokkaido University*);

14:20 Invited Deformation, Bifurcation and Wave Localization in a New Type of Flexible Mechanical Metamaterials
Jian Li (*Zhejiang University*); *Ronghao Bao* (*Zhejiang University*); *Weiqiu Chen* (*Zhejiang University*);

14:40 Invited Acoustic/Elastic Willis Media and Dynamic Homogenization
Gengkai Hu (*Beijing Institute of Technology*);

15:00 Invited Coupled Acoustic-elastic Resonators with High Q via Bound States in the Continuum
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 Invited Switching of Topological Interface State Transmission in Soft Elastic Metamaterials under Mechanical Deformation
Gang-Gang Xu (*Tianjin University*); *Tianxue Ma* (*Beijing Jiaotong University*); *Yue-Sheng Wang* (*Tianjin University*); *Johan Christensen* (*IMDEA Materials Institute*);

16:00 Invited Nonreciprocal Topological Kink-wave Propagation in Mechanical Metamaterials
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*);

17:10 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*);

17:25 Temporal Topological Boundary States in Nonreciprocal System
Yuyang Cai (*Hunan University*); *Mengqun Chen* (*Hunan University*); *Qinghua Guo* (*Hunan University*); *Biao Yang* (*National University of Defence Technology*);

17:40 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*);

17:55 Experimental Realization of Special-unitary Operations in Classical Mechanics by Non-adiabatic Evolutions
Congwei Lu (*Hong Kong Baptist University*); *Xulong Wang* (*Hong Kong Baptist University*); *Guancong Ma* (*Baptist University of Hongkong*);

00:00 Anderson Transition at Complex Energies in One-
Invited dimensional Parity-Time-Symmetric Disordered Systems
Wei Wang (*Harbin Institute of Technology*); *Xulong Wang* (*Hong Kong Baptist University*); *Guancong Ma* (*Hong Kong Baptist University*);

00:00 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

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 Multiphysics Analysis
Qixun Zhang (*University of Electronic Science and Technology of China*); *Muran Li* (*University of Electronic Science and Technology of China*); *Zhiyuan Zhang* (*University of Electronic Science and Technology of China*); *Lin Huang* (*University of Electronic Science and Technology of China*); *Guo Liu* (*University of Electronic Science and Technology of China*);

14:00 Non-invasive Modulation of Depressive-like Behaviors in Rats Using Ultrafast Electromagnetic Pulses Generated by FM Pulse Compression
Zhiyuan Zhang (*University of Electronic Science and Technology of China*); *Muran Li* (*University of Electronic Science and Technology of China*); *Lin Huang* (*University of Electronic Science and Technology of China*); *Guo Liu* (*University of Electronic Science and Technology of China*);

14:15 Research on Near-field Focusing Lenses of Ka-band
Xingyu Lu (*University of Electronic Science and Technology of China (UESTC)*); *Bingyang Liang* (*University of Electronic Science and Technology of China (UESTC)*); *Zhengguo Zhou* (*University of Electronic Science and Technology of China (UESTC)*); *Xingyu Hao* (*University of Electronic Science and Technology of China (UESTC)*); *Yubin Gong* (*University of Electronic Science and Technology of China*);

14:30 Multiphysics Simulation Study on the Interaction between Ultrafast Electromagnetic Pulses and Human Brain
Qi Jiang (*University of Electronic Science and Technology of China*); *Muran Li* (*University of Electronic Science and Technology of China*); *Zhiyuan Zhang* (*University of Electronic Science and Technology of China*); *Guo Liu* (*University of Electronic Science and Technology of China*);

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*);

00:00 Feasibility Study on Microwave Glucose Level Monitoring
Yong Zhou (*University of Texas Rio Grande Valley*); *Ricardo Cepeda* (*University of Texas Rio Grande Valley*);

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*);

00:00 Quantum-enhanced Mitotic Figure Detection Using a Hybrid CNN-VQC Architecture
Umair Makhdoom (*University of Engineering and Technology (UET)*); *Usman Ali Shams* (*University of Health Sciences (UHS)*); *Abdul Wahab* (*Information technology University*); *Sadia Noureen* (*Information Technology University of the Punjab (ITU)*); *Yee Sin Ang* (*Singapore University of Technology and Design (SUTD)*); *Muhammad Zubair* (*University of Leicester*); *Muhammad Qasim Mehmood* (*Information Technology University (ITU)*);

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 Invited Entanglement in a Molecular Lieb-lattice Quantum Computing Circuit: A Tensor Network Study
Wei Wu (*University College London*);

13:20 Invited Vdws Material Fe_3GeTe_2 Based Tunnelling Magnetoresistance and Spin Orbit Torque Switch
Linjun Li (*Zhejiang University*);

13:40 Invited Nonvolatile Magnetotransport Effects in Two-dimensional Antiferromagnets
Ding-Fu Shao (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*);

14:00 Invited Crystal Symmetry-dependent Spin and Orbit Transports
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 Invited Electrically-tunable Magnetic Proximity in a $In_2Se_3/CrBr_3/WS_2$ Van de Waals Heterostructure
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 Fe_3GaTe_2/InSe/Fe_3GaTe_2 van der Waals Heterostructures
Bo Zhang (*Xiamen University*); *Lianying Zhu* (*Xiamen University*); *Zhiwen Chen* (*Xiamen University*); *Ying Zhang* (*HFIPS Chinese Academy of Sciences*); *Bosen Wang* (*Xiamen University*); *Zhipeng Wang* (*Xiamen University*); *Shaoxiong Wu* (*Xiamen University*); *Xiaping Chen* (*Xiamen University*); *Feng Zhang* (*Xiamen University*); *Maoyuan Wang* (*Xiamen University*); *Huolin Huang* (*Dalian University of Technology*); *Bing Xiang* (*University of Science and Technology of China*); *Deyi Fu* (*Xiamen University*); *Rong Zhang* (*Xiamen University*);

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*);

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
Invited Semiconductors
Junyong Wang (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*);

00:00 Giant Nonlinear Hall Effect in Isospin Symmetry Broken
Invited Bilayer Graphene
Hao Chen (*Nanjing University*); *Kian Ping Loh* (*National University of Singapore*);

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*); *Yiyan 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 $NbSe_2$
Tingyu Qu (*National University of Singapore*); *Barbaros Oezyilmaz* (*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 - VIP R5
Organized by Rumao Tao, Xiaolin Wang

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

13:20 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 Electroetry, SB, RAS*); *Zhibzema E. Munkueva* (*Institute of Automation and Electrometry of the SB RAS*); *Alexandr V. Dostovalov* (*Institute of Automation and Electrometry SB RAS*);

00:00 Research on High-power Narrow-linewidth Fiber Lasers
Invited
Qirong Xiao (*Tsinghua University*);

13:55 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*);

14:15 Reinforcement Learning Control of Fiber Mode-locked
Invited Lasers under Environmental Fluctuations and Multistable Mode of Operations
Alexey Yu. Kokhanovskiy (*ITMO University*); *Kirill V. Serebrennikov* (*Novosibirsk State University*); *Sergey Chirkov* (*Novosibirsk State University*); *Denis S. Kharenko* (*Institute of Automation and Electrometry, SB, RAS*);

00:00 Invited Efficient TMI Suppression Based on High-order Modes Filter Using Photonic Bandgap Fiber

Hu Xiao (*National University of Defense Technology*); *Chongwei Wang* (*National University of Defense Technology*); *Mengfan Cui* (*National University of Defense Technology*); *Yang Liu* (*National University of Defense Technology*); *Xiao Chen* (*National University of Defense Technology*); *Wei Liu* (*National University of Defense Technology*); *Zilun Chen* (*National University of Defense Technology*); *Pengfei Ma* (*National University of Defense Technology*); *Zefeng Wang* (*National University of Defense Technology*); *Jinbao Chen* (*National University of Defense Technology*);

14:55 Invited LD-pumped High Average Power High Beam Quality Monolithic Fiber Lasers and Its Long Distance Propagations in Hollow Core Fiber

Baolai Yang (*National University of Defense Technology*); *Zilun Chen* (*National University of Defense Technology*); *Pengfei Ma* (*National University of Defense Technology*); *Zefeng Wang* (*National University of Defense Technology*);

00:00 Invited Research Progress on Liquid Crystal Optical Phased Arrays for Laser Communication

Xiangjie Zhao (*Institute of Fluid Physics, China Academy of Engineering Physics*); *Yingnan Peng* (*Institute of Fluid Physics, China Academy of Engineering Physics*); *Qiqi Hu* (*Institute of Fluid Physics, China Academy of Engineering Physics*); *Fan Zou* (*Institute of Fluid Physics, China Academy of Engineering Physics*); *Dapeng Li* (*Institute of Fluid Physics, China Academy of Engineering Physics*); *Hao Shen* (*Institute of Fluid Physics, China Academy of Engineering Physics*);

00:00 Invited High Order Mode Suppression of High Power Fiber Laser Enabled by Non-Hermitian Physics

Zichao Zhou (*Information Support Force Engineering University*); *Jian Peng* (*Information Support Force Engineering University*); *Yang Ran* (*Information Support Force Engineering University*); *Ke Li* (*Information Support Force Engineering University*); *Rui Chang* (*Information Support Force Engineering University*); *Chen Dong* (*Information Support Force Engineering University*);

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

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

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

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

00:00 Invited Origin of SRS-induced Mode Degradation in High Power 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*);

16:55 Invited Self-imaging All-fiber Coherent Combiner: Progress and 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*);

17:15 A Novel Approach for a High Efficient Single-mode Operation near 900 nm in Nd-doped Fiber with ASE Suppression
Danila A. Davydov (*The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*); *Svetlana S. Aleshkina* (*Fiber Optics Research Center of the Russian Academy of Sciences*); *Vladimir V. Velmiskin* (*Prokhorov General Physics Institute of the Russian Academy of Sciences*); *Alexey S. Lobanov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Science*); *Mikhail V. Yashkov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences*); *Denis S. Lipatov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences*); *Dmitry V. Przhiialkovskii* (*The Kotelnikov Institute of Radioengineering and Electronics of the Russian Academy of Sciences*); *Oleg V. Butov* (*Kotelnikov Institute of Radioengineering and Electronics of RAS*); *Mikhail Y. Likhachev* (*The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*);

00:00 Single-step Phase Locking for Coherent Beam Combining via Single-detector Multi-frequency Heterodyne Technique
Hongbing Zhou (*Tsinghua University*); *Rumao Tao* (*Laser Fusion Research Center, China Academy of Engineering Physics*); *Xi Feng* (*Laser Fusion Research Center, China Academy of Engineering Physics*); *Min Li* (*Laser Fusion Research Center, China Academy of Engineering Physics*); *Dangpeng Xu* (*Laser Fusion Research Center, China Academy of Engineering Physics*);

00:00 Photon-number-resolving Coherent Frequency-shift Keying Quantum-enhanced Receiver
Yuanyuan Peng (*National University of Defense Technology*); *Yang Ran* (*Information Support Force Engineering University*); *Jian Peng* (*Information Support Force Engineering University*); *Huankai Zhang* (*Information Support Force Engineering University*); *Chen Dong* (*Information Support Force Engineering University*);

00:00 Chirped Tilted Fiber Bragg Grating Bragg-reflection in High Power Fiber Oscillators: Influence and Mitigation
Binchuan Sun (*Northwestern Polytechnical University*); *Shan Huang* (*Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)*); *Guijiang Yang* (*Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)*); *Xinyu Wang* (*Science and Technology City Photonics Technology Research Institute*); *Yu Liu* (*Laser Fusion Research Center, China Academy of Engineering Physics (CAEP)*); *Yajun Jiang* (*Northwestern Polytechnical University*); *Rumao Tao* (*Laser Fusion Research Center, China Academy of Engineering Physics*); *Jianjun Wang* (*Laser Fusion Research Center of CAEP*);

Session 0P15a
Chiral and Spin Optoelectronic Devices

Monday PM, July 27, 2026

Room 15 - CR 18

Organized by Taotao Zhuang

13:00 Invited Discrete Chiral Plasmonic Nanoparticles with Strong Optical Activities
Bing Ni (*Beijing Normal University*);

13:20 Invited Regulation Strategies for Chiral Nanosystems
Xiaoqing Gao (*Wenzhou Institute, University of Chinese Academy of Sciences*);

13:40 Circularly Polarized OLEDs from Chiral Plasmonic Nanoparticle-molecule Hybrids
Jiapeng Zheng (*University of Shanghai for Science and Technology*);

13:55 Keynote Harnessing Chiral Supramolecular Self-assembly from Star-like Block Copolymer Building Blocks for Stable and Full Color Circularly Polarized Light Emission
Minju Kim (*Ewha Womans University*); *Mingyue Zhang* (*National University of Singapore*); *Zhiqun Lin* (*National University of Singapore*); *Dong Ha Kim* (*Ewha Womans University*);

14:25 Invited High-precision Synthesis and Excited-state Control of One-dimensional Nanocrystals
Yi Li (*Hefei University of Technology*);

14:45 Engineering Transverse Optical Spin and Chirality in Subwavelength Grating Waveguides
N. G. Iukhtanov (*ITMO University*); *Roman S. Savelev* (*ITMO University*);

15:00 Highly Efficient Lead-free Perovskite for Luminescent Solar Concentrators
Xiyan Li (*Nankai University*);

00:00 Invited Chiral-perovskite Optoelectronics
Guankui Long (*Nankai University*);

00:00 Invited Chiral Perovskites: From Fundamentals to Opto-spintronics
Haipeng Lu (*The Hong Kong University of Science and Technology*);

00:00 Invited Excited-states Manipulation in Lanthanide-molecule Nanohybrids
Sanyang Han (*Tsinghua University*);

Session 0P16
Ultrafast and Nonlinear Nanophotonics 1

Monday PM, July 27, 2026

Room 16 - CR 19

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

Chaired by Kirill L. Koshelev, Mihail I. Petrov

13:00 Thin-film Lithium Niobate Waveguides for Mode-Phase-Matching Based Nonlinear Photonics
Invited
Lei Wang (*Shandong University*); *Feng Chen* (*Shandong University*);

13:20 Employing Frequency-mixing in Metasurfaces for Nonlinear Imaging
Invited
Mohsen Rahmani (*Nottingham Trent University*);

13:40 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*);

14:00 Nonlinear Optical Resonances from Ballistic Electron Funnelling
Invited
Lin Wu (*Singapore University of Technology and Design (SUTD)*);

14:20 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*);

14:35 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*);

14:50 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*);

15:05 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"*);

15:20 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*); *VladimirO. Bessonov* (*Lomonosov Moscow State University*); *Andrey A. Fedyanin* (*Lomonosov Moscow State University*);

16:00 Ultrafast Quantum and Classical Nonlinear Nanophotonic Circuits
Invited
Alireza Marandi (*California Institute of Technology*);

16:20 Nonreciprocal Nanophotonics
Invited
Sergey S. Kruk (*Tampere University*);

16:40 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*);

16:55 All-optical Switching in Dielectric Metasurfaces Coupled with Transition Metal Dichalcogenides
Anna M. Chernyak (*Shenzhen MSU-BIT University*); *A. I. Musorin* (*Shenzhen MSU-BIT University*); *Alexander S. Shorokhov* (*Lomonosov Moscow State University*); *Andrey A. Fedyanin* (*Lomonosov Moscow State University*);

00:00 Erbium Doped Photonic Integrated Circuits: From Amplifiers to Femtosecond Lasers On Chip
Invited
Xinru Ji (*EPFL*); *Tobias J. Kippenberg* (*Swiss Federal Institute of Technology Lausanne (EPFL)*);

17:30 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*);

17:45 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*);

18:05 Floquet Engineering of Nanosystem in Strong Coupling Regime
Ilya V. Doronin (*NL Dukhov All-Russian Scientific Research Institute of Automation*);

Session 0P17
Metasurface Polarization and Diffraction Optics 1

Monday PM, July 27, 2026

Room 17 - CR 20

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

Chaired by Zi-Lan Deng

13:00 Invited Reconfigurable Terahertz Metalenses: Paving the Way 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 Invited Observation of Strong Spin-orbit Couplings in a Plasmonic Spin-twistronics Topological Lattices
Peng Shi (*Shenzhen University*);

14:10 Invited Wireless Exceptional-point Sensors Enhanced by Noise
Zhipeng Li (*University of Science and Technology of China*);

14:30 Invited Light-emitting Metasurface for Multi-dimensional Incoherent Fluorescence Manipulation
Shuai Wan (*Wuhan University*); *Yangyang Shi* (*Wuhan University*); *Zejing Wang* (*Wuhan University*); *Zhongyang Li* (*Wuhan University*);

14:50 Invited Narrowband Geometric-phase and Laser Wavefront Modulation in Resonant Metasurfaces
Yixuan Zeng (*Peng Cheng Laboratory*);

15:10 Invited Research on Multifunctional Metasurfaces Based on Polarization Multiplexing
Juan Deng (*Zhejiang University of Technology*);

16:00 Invited Nanograting-enhanced Light Modulation in Nonlinear Crystal Platforms
Lei Zhang (*Xi'an Jiaotong University*); *Yaping Hou* (*Xi'an Jiaotong University*);

16:20 Invited Structured Light Field Manipulation and Application Using High-numerical-aperture Metasurfaces
Guanghui Yuan (*University of Science and Technology of China*);

16:40 Polarization-sensitive Dynamic Phase Gradient Synthesization with Moiré Metasurface
Zhenshuo Chen (*Hefei University of Technology*); *Bingyi Liu* (*Hefei University of Technology*);

16:55 Invited Enhanced Photonic Spin Hall Effect from Slabs and Nanoparticles
Dongliang Gao (*Soochow University*);

00:00 Invited Metasurfaces for Tomography and Distribution of Quantum States
Ruwen Peng (*Nanjing University*); *Mu Wang* (*Nanjing University*);

00:00 Invited Research on the Modulation of Exciton Luminescence in Low-dimensional Materials Based on Optical Microcavities
Jianmei Li (*Yanshan University*);

00:00 Invited Möbius Metasurface for Fully Decoupled Bidirectional Light Control
Rongsheng Chen (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*); *Feilong Yu* (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*); *Guanhai Li* (*Shanghai Institute of Technical Physics of the Chinese Academy of Sciences*); *Xiaoshuang Chen* (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*); *Wei Lu* (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*);

00:00 Invited Exchange Driven Valley Switching in Moiré Semiconductors Correlated States
Qinghai Tan (*University of Science and Technology of China*);

00:00 Invited A 0.18 Cubic Centimeter 3D Meta-holographic Zoom 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 - VIP R8

Organized 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 Invited Engineering Symmetry-protected and Accidental Bound States in the Continuum for Multimodal Dielectric Biosensing
Jose Francisco Algorri (*Universidad de Cantabria*); *Dimitrios C. Zografopoulos* (*Consiglio Nazionale delle Ricerche Istituto per la Microelettronica e Microsistemi*); *L. Rodríguez-Cobo* (*Universidad de Cantabria*); *A. Cobo* (*Universidad de Cantabria*); *Mohammed Janneh* (*University of Sannio*); *Patrizio Vaiano* (*University of Sannio*); *Marco Pisco* (*University of Sannio*); *Andrea Cusano* (*Centro Regionale Information Communication Technology (CeRICT Scrl)*);

00:00 Thermal Monitoring in Particle Accelerators Using FBG Sensors: Results from the iPipe Project in LHC Run 3
Francesco Fienga (*University of Naples Federico II*); *Vincenzo Romano Marrazzo* (*University of Naples Federico II*); *Leonardo Sito* (*European Organization for Nuclear Research (CERN)*); *Andrea Irace* (*University of Naples Federico II*); *Noemi Beni* (*Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)*); *Zoltan Szillasi* (*Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)*); *Salvatore Buontempo* (*National Institute for Nuclear Physics (INFN)*); *Giovanni Breglio* (*University of Naples Federico II*);

00:00 Over a Decade of Uninterrupted FBG Sensing in the CMS Experiment at CERN
Francesco Fienga (*University of Naples Federico II*); *Vincenzo Romano Marrazzo* (*University of Naples Federico II*); *Leonardo Sito* (*European Organization for Nuclear Research (CERN)*); *Noemi Beni* (*Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)*); *Zoltan Szillasi* (*Institute for Nuclear Research of Eotvos Lorand Research Network (ATOMKI)*); *Salvatore Buontempo* (*National Institute for Nuclear Physics (INFN)*); *Giovanni Breglio* (*University of Naples Federico II*);

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 Invited Prototype-to-chip Design of a Silicon-photonic Fiber-optic Gyroscope
Teresa Natale (*Polytechnic University of Bari*);

16:00 Advanced SERS Platforms Based on Nanopillar Cluster Arrays
Mohammed Janneh (*University of Sannio*); *Concetta Esposito* (*Centro Regionale Information Communication Technology (CeRICT Scrl)*); *Francesco Galeotti* (*Istituto di Scienze e Tecnologie Chimiche "G. Natta" (SCITEC) (CNR)*); *Maria Alessandra Cutolo* (*University of Sannio*); *Sara Spaziani* (*Centro Regionale Information Communication Technology (CeRICT Scrl)*); *Giovanni Breglio* (*University of Naples Federico II*); *Andrea Cusano* (*Centro Regionale Information Communication Technology (CeRICT Scrl)*); *Marco Pisco* (*University of Sannio*);

Session 0P18b
Functional Micro- and Nanoscale Materials for Optical Sensing and Imaging

Monday PM, July 27, 2026

Room 18 - VIP R8

Organized by Pier Paolo Pompa, Matin 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 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*);

16:50 Bioinspired Nanobiosensors for Portable and Wearable
Invited Diagnostics
Elisa Michelini (*University of Bologna*);

17:10 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*);

17:30 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*);

17:45 Detect & Destroy: A Singular Multilayered Platform for
Invited the Capture, Identification, and Degradation of Emerging Pollutants
Paola Lova (*University of Genova*);

18:05 Light-matter Strong Coupling in In-situ Microchannel Perovskite Microcavities
Qungui Wang (*Westlake University*); *Zhen Cui* (*Westlake University*); *Pavlos G. Savvidis* (*Westlake University*);

00:00 Angular Tuning of Hybrid Photonic-plasmonic Nanostructures for Optimized SERS
Wei Lin (*Zhejiang University*); *Matin 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*);

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 (*Southern University of Science and Technology*); *Dong Zhao* (*Southern University of Science and Technology*); *Shuxin Lin* (*Southern University of Science and Technology*); *Xiaoyuan Jiao* (*Southern University of Science and Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

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 Disor-
Invited dered Photonic Chern Insulators
Jun Chen (*Shanxi University*);

14:35 Geometry-induced Exceptional Points Revealed by Ex-
Invited perimental Reconstruction of Non-Hermitian Band Structures
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*);

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* (*Univerity of Southampton*);

00:00 Shaping and Controlling Nonlinearities in Complex Multimode Systems
Invited
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 Nonlinear Resonator Networks: From Complex Optics to Advanced Computing and Sensing
Invited
Alireza Marandi (*California Institute of Technology*);

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 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.*);

14:30 Anomalous Wave-packet Dynamics in Non-Hermitian Systems
Yanyan He (*Tohoku University*); *Tomoki Ozawa* (*Tohoku University*);

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 Hüpfl* (*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 Dirac Branch-cut Modes
Invited
B. Zhu (*Nanyang Technological University*); *C. Ma* (*Nanyang Technological University*); *Q. Wang* (*Nanjing University*); *G. Liu* (*Westlake University*); *X. Zhang* (*Nanyang Technological University*); *Q. J. Wang* (*Nanyang Technological University*); *B. Zhang* (*Nanyang Technological University*); *Yidong Chong* (*Nanyang Technological University*);

16:00 Finite Barrier Bound State
Tao Liu (*Wuhan University*); *Kai Bai* (*Wuhan University*); *Yicheng Zhang* (*Wuhan University*); *Duanduan Wan* (*Wuhan University*); *Yun Lai* (*Nanjing University*); *Che Ting Chan* (*The Hong Kong University of Science and Technology*); *Meng Xiao* (*Wuhan University*);

16:15 Surface Acoustic Wave-based Cavity Magnomechanics
Invited for Strong Coupling between Magnons and Microwave Phonons
Daiki Hatanaka (*NTT, Inc.*); *Motoki Asano* (*NTT, Inc.*); *Yoshitaka Taniyasu* (*Basic Research Laboratories, NTT, Inc.*); *Hajime Okamoto* (*Basic Research Laboratories, NTT, Inc.*); *Hiroshi Yamaguchi* (*Basic Research Laboratories, NTT, Inc.*);

16:35 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*);

16:50 Topological Wave Matter Interaction
Invited
Yijie Shen (*Nanyang Technological University*);

17:10 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*);

17:25 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*);

17:45 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)*);

18:00 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 Ling-Ling Ma, Jian Chen

13:00 Robust Transport Channels in Complex Media
Han Gao (*University of Shanghai for Science and Technology*); *Qiwen Zhan* (*University of Shanghai for Science and Technology*); *Haifeng Hu* (*University of Shanghai for Science and Technology*); *Qiaoqiang Gan* (*King Abdullah University of Science and Technology (KAUST)*);

13:15 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*);

13:30 Control of Laser Radiation Structure Based on Coherent
Invited Beam Combining
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)*); *Grigorii 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*);

13:50 Parity and Radial Momentum Control in Optical Vor-
Invited tices
Zhenwei Xie (*Shenzhen University*);

14:10 Periodically-modulated Unipolar and Bipolar Orders in
Invited Nematic Fluids towards Miniaturized Nonlinear Vectorial Optics
Ling-Ling Ma (*Nanjing University*); *Guang-Yang Zhang* (*Nanjing University*); *Yan-Qing Lu* (*Nanjing University*);

14:30 Vector Vortex Solitons and Chaoticons in Nonlocal Non-
Invited linear Media
Hui-Cong Zhang (*Zhejiang A&F University*);

14:50 Manipulation of Angular Momentum and Topological Structures in Vector Optical Fields
Invited
Jian Chen (*University of Shanghai for Science and Technology*);

15:10 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*);

16:15 Fisher Information, Atomic-scale Optical Metrology and Advanced Super-resolution Imaging
Keynote
Nikolay I. Zheludev (*University of Southampton*);

16:00 Generation and Modulation of Optical Lattice
Hao Zhang (*Henan University of Science and Technology*);

16:45 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*);

17:00 Structured Vector Light Fields for Spatially Resolved Chirality Sensing
Jun-Hao Su (*Zhejiang Sci-Tech University*); *Caixia Liu* (*Zhejiang Sci-Tech University*); *Xiao-Bo Hu* (*Zhejiang Sci-Tech University*); *Carmelo Rosales-Guzmán* (*Harbin University of Science and Technology*);

17:15 Silicon Bowtie Nanocavities with Nano-electromechanical 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*);

17:35 Prime Number Factorization with the Structured Random Lights
Invited
Chunhao Liang (*Shandong Normal University*);

17:55 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*);

17:55 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*);

18:10 Self-assembly Nanophotonic Sources
Invited
Jiangang Feng (*University of Science and Technology of China*);

00:00 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*);

00:00 Interfacial Modification of GO-based Hybrid Film Leads to Giant Ultrafast Optical Nonlinearity
Invited
Xuefeng Zhang (*National University of Defense Technology*); *Hanke Zhang* (*National University of Defense Technology*); *Zhongquan Nie* (*National University of Defense Technology*);

Session 0P22a
Poster Session for Best Student Presentation Awards Competition - Part 1

Monday PM, July 27, 2026
Poster Area

Session 0P22b
Poster Session 1

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

00:00 An Infinite Wave Propagation Speed Attainable Independently of Source Functions: Part (II)
Namik Yener (*Istanbul 29 Mayis University*);

00:00 Research on Low RCS Optimization Based on FFD Parameterization and High-order MoM
Hongbin Zhang (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Zongwei Zhan* (*Southwest University of Science and Technology*); *Chunying Zhao* (*Chengdu Tianao Technology Development Co., Ltd*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Longjian Zhou* (*Southwest University of 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*);

00:00 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*);

00:00 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*);

00:00 Resolving Complex EMC Environments: Mixed-field Localization and Waveform Recovery for Coexisting Wideband and Narrowband Sources
Peng Liu (*Southwest University of Science and Technology*); *Bin Xie* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Zhen-Yong Du* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yixiang Li* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 A Nosie-matched Method for FZA Lensless Imaging
Pengtao Jiang (*Huazhong University of Science and Technologty*); *Jiangye Kuang* (*Optics Valley Laboratory*); *Yi Ding* (*Optics Valley Laboratory*); *Xiaoqun Yuan* (*Wuhan University*); *Wenzhong Liu* (*Huazhong University of Science and Technology*);

00:00 All-dielectric Quarter Wave Plate for Wide THz Bandwidth
Rebeca Tudor (*IMT*);

00:00 Periodic Modulation Effect on Radar Coherent Integration Using Phase-switched Screen
Bohui Guo (*National University of Defense Technology*); *Junjie Wang* (*National University of Defense Technology*); *De-Jun Feng* (*National University of Defense Technology*);

00:00 Inverse Design of Focusing Metalens
Yung-Chiang Lan (*National Cheng Kung University*); *Hong-Yang Chao* (*National Cheng Kung University*);

00:00 Miniaturized Self-packaged D-band Wide Stopband Multiplexer Based on Micro-rectangular Coaxial Structure
Xiaojun Wu (*China Mobile Internet of Things Company*); *Xinyao Liu* (*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*);

00:00 Quantum Collapse-revival Effect of ion Population Probability in Light-phonon-ion Coupling
Shiyao Chong (*Hengshui University*); *Lei Wang* (*Zhejiang University*); *Jian Qi Shen* (*Zhejiang University*);

00:00 On-chip Waveguide Devices Utilizing Single Quantum Dot Spin Transport
Shushu Shi (*Southwest Institute of Technical Physics*); *Yanling Xiong* (*Southwest Institute of Technical Physics*); *Liting Deng* (*Southwest Institute of Technical Physics*); *Yanling Lu* (*Southwest Institute of Technical Physics*); *Qingxia Liu* (*Southwest Institute of Technical Physics*); *Zhicheng Xie* (*Southwest Institute of Technical Physics*); *Beitong Cheng* (*Southwest Institute of Technical Physics*); *Ruomei Jiang* (*Southwest Institute of Technical Physics*); *Haotian Jiang* (*Southwest Institute of Technical Physics*); *Dianli Zhou* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*);

00:00 High-precision Heterodyne Photoacoustic Gas Sensing with Resonance Tracking in High-Q Resonators
Tingting Wei (*Shanxi University*); *Hongpeng Wu* (*Shanxi University*); *Wei Dong Chen* (*Université du Littoral Côte d'Opale*); *Biao Li* (*Chongqing University of Posts and Telecommunications*); *Bo Sun* (*Taiyuan University of Technology*); *Lei Dong* (*Shanxi University*);

00:00 Development and Study of the Properties of Nd and Bi Optical Fibers with an Aluminophosphosilicate Core
Denis S. Lipatov (*Institute of Chemistry of High Purity Substances of RAS*); *Alexey N. Abramov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Science*); *Alexey S. Lobanov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Science*); *Denis F. Burmistrov* (*Institute of Chemistry of High Purity Substances of RAS*); *Danila A. Davydov* (*Institute of Chemistry of High Purity Substances of RAS*); *Mikhail E. Likhachev* (*Fiber Optics Research Center, Russian Academy of Sciences*); *Sergey A. Ostrikov* (*Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*); *Mikhail A. Melkumov* (*Fiber Optics Research Center of the Russian Academy of Sciences*); *Sergei V. Firstov* (*Fiber Optics Research Center of the Russian Academy of Sciences*);

00:00 Inverse-designed Polarization-insensitive Edge Coupler with High Efficiency for O-band Applications
Songyang Li (*Beijing University of Posts and Telecommunications*); *Lei Zhang* (*Beijing University of Posts and Telecommunications*);

00:00 The Influence of Data Preprocessing on the Accuracy of Recognizing the Parameters of Geometric Progression of Optical Vortices in Digital Intensity Images
Dmitry O. Shilov (*Samara National Research University*); *Elena Sergeevna Kozlova* (*Samara National Research University & NRC "Kurchatov Institute"*);

00:00 Design and Investigation of a Flexible Collapsible Impulse Radiating Antenna
Shigang Zheng (*Shandong Institute of Aerospace Electronics Technology*); *W. N. Liu* (*Shandong Institute of Aerospace Electronics Technology*);

00:00 Design of a K/Ka-band Polarization-reconfigurable Circularly Polarized Shared-aperture Antenna Element for Satellite Communications
Wenhan Li (*Southwest Jiaotong University*); *Xiangqiang Li* (*Southwest Jiaotong University*); *Jianqiong Zhang* (*Southwest Jiaotong University*); *Qingfeng Wang* (*Southwest Jiaotong University*);

00:00 A Novel 3.5G Antenna Design
Zeyu Li (*Lanzhou University*);

00:00 Design and Breakdown Characteristics of High-power Waveguide Windows
Guodong Gao (*Northwest Institute of Nuclear Technology*); *Tao Jiang* (*Northwest Institute of Nuclear Technology*); *Pin Lu* (*Northwest Institute of Nuclear Technology*); *Weida Bai* (*Northwest Institute of Nuclear Technology*); *Jianglong Zhou* (*Northwest Institute of Nuclear Technology*); *Wei Peng* (*Northwest Institute of Nuclear Technology*); *Guang Yang* (*National University of Defense Technology*);

00:00 A Dual-band Bandpass Filter Using Stepped Impedance Resonators with Stub-loaded Resonators
Dequan Shang (*Southwest University of Science and Technology*); *Zuxue Xia* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Pingping Chen* (*Southwest University of Science and Technology*);

00:00 A FOWLP T/R SiP with Eutectic MoCu Chip Carrier for 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*); *Huaiqiang Yu* (*Sichuan Institute of Piezoelectric and Acousto-optic Technology*);

00:00 Wideband Gap Waveguide-based Mechanically Reconfigurable Phase Shifter for High-power Applications
Zhiqiang Liu (*Southeast University*); *Haiyang Xia* (*Purple Mountain Laboratories*); *Huan Liu* (*Purple Mountain Laboratories*); *Lianming Li* (*Southeast University*);

00:00 Harmonic Distortion Analysis in Integrated Wireless Power Transfer and Power Line Communication Systems
Marco Raugi (*Universita di Pisa*);

00:00 AI-driven Optimization of Smart Transport Systems in 5G and 6G Networks: Trends, Challenges, and Future Research Directions
Jelena Kusnere (*Riga Technical University*); *Romans Jerjomin* (*Riga Technical University*); *Roberts Pildavs* (*Riga Technical University*); *Aleksejs Kopats* (*Riga Technical University*); *Anna Karklina* (*Riga Technical University*); *Jānis Klūga* (*Riga Technical University*); *Aleksandrs Sviridovs* (*Riga Technical University*); *Tianhua Chen* (*Riga Technical University*); *Igors Lipļanskis* (*Riga Technical University*); *Aleksandrs Ipatovs* (*Riga Technical University*);

00:00 Super-resolution Reconstruction of Weather Radar Reflectivity Based on Dual-frequency Radar Data Fusion
Yao Li (*Chengdu University of Information Technology*); *Qiangyu Zeng* (*Chengdu University of Information Technology*); *Yu Wang* (*Chengdu University of Information Technology*); *Mengting Yu* (*Chengdu University of Information Technology*);

00:00 3D Structure and Micromotion Estimation of Ship Targets with Complex Motion Using Single-channel SAR
Yifan Liu (*National University of Defense Technology*); *Xiangguang Leng* (*National University of Defense Technology*); *Xinqi Xu* (*National University of Defense Technology*); *Kefeng Ji* (*National University of Defense Technology*);

00:00 An Adaptive Interpolation Pre-distortion Algorithm
Haoyang Li (*Inner Mongolia University of Technology*); *Wei Xu* (*Inner Mongolia University of Technology*); *Pingping Huang* (*Inner Mongolia University of Technology*); *Weixian Tan* (*Inner Mongolia University of Technology*);

00:00 Low-altitude L2 Signal Reconstruction for FY-3 GNOS Data Using the Physics-constrained Deep Learning Algorithm
Xinjie Liu (*Fudan University*); *Geng-Ming Jiang* (*Fudan University*);

00:00 Analysis of Spherical Conformal Phased Array Antennas for 5G/B5G and Low-Earth-Orbit (LEO) Satellite Communications
Shih-Chung Tuan (*Asia Eastern University of Science and Technology*); *Kung-Yu Lu* (*Fuzhou University of International Studies and Trade*);

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 — 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*);

8:15 ZJU-SCATTER-V1.0: A New Database of Single-scattering Properties for Aerosols and Ice Crystals to Support General Remote Sensing, Data Assimilation, and Climate Studies
Lei Bi (*Zhejiang University*); *Senyi Kong* (*Zhejiang University*); *Yue Xi* (*Zhejiang University*); *Xuan Wang* (*Zhejiang University*); *Wushao Lin* (*Zhejiang University*); *Zhenhong Du* (*Zhejiang University*); *Wei Han* (*China Meteorological Administration*); *Xiaoye Zhang* (*Institute of Atmospheric Composition, Chinese Academy of Meteorological Sciences*);

00:00 Next-Generation Earth System Assimilation: The Confluence of Satellite Observations, Physics, and AI
Wei Han (*Center for Earth System Modelling and Prediction, CMA*);

8:45 Pretraining-enhanced Satellite Sensing Toward Instant On-orbit Monitoring
Xing Yan (*Beijing Normal University*);

9:00 Cloud Thermodynamic Phase Inferred from Simultaneous Shortwave Infrared and Multi-angle Polarization Measurement
Haofei Wang (*National Satellite Meteorological Center (National Center for Space Weather), China Meteorological Administration*); *P. Zhang* (*Meteorological Observation Centre, China Meteorological Administration*); *X. F. Tan* (*Nanjing University of Information Science and Technology*); *K. Suzuki* (*The University of Tokyo*);

9:15 Hybrid Observing System Simulation Experiment (Hybrid-OSSEs) to Evaluate the Potential Impact of the FY-4 Geostationary Orbit Microwave Satellite on Numerical Weather Prediction
Ke Chen (*Huazhong University of Science and Technology*);

00:00 Application Progress of FY-4B GIIRS in CMA Global and Regional Model
Ruoying Yin (*CMA Earth System Modeling and Prediction Centre (CEMC)*); *Wei Han* (*CMA Earth System Modeling and Prediction Centre (CEMC)*); *Hao Wang* (*CMA Earth System Modeling and Prediction Centre (CEMC)*);

9:45 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*);

10:30 Retrieval of Subpixel Cloud Fraction from Coarse Cloud Masks with Deep Learning
Qingmin Wang (*Nanjing University*); *Yannian Zhu* (*Nanjing University*); *Chao Liu* (*Nanjing University*); *Husi Letu* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Renge Zhou* (*Nanjing University*); *Chen Zhou* (*Nanjing University*);

00:00 Research Progress on Atmospheric Composition Observation of Fengyun Satellites
Lin Chen (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Yidan Si* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Yapeng Wang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Ling Gao* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Qian Wang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Lu Zhang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Yan Zhang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Huanhuan Yan* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Sijie Chen* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Weihe Wang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Xiuqing Hu* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*); *Xingying Zhang* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*);

00:00 Global Retrieval of Single-layer Liquid Cloud Geometrical Thickness via OCO-2 Hyperspectral Oxygen A-band Observations
Siwei Li (*Wuhan University*);

11:15 Impacts of Mineralogy and Size on the Spectral Variation of Dust Lidar Properties and Hyper-spectral Reflectance
Tony La Luna (*UMBC*); *Zhibo Zhang* (*University of Maryland, Baltimore County*); *Qianqian Song* (*University of Maryland, Baltimore County*); *Hongbin Yu* (*NASA*);

11:30 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*);

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

00:00 Invited 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 Invited Concept of a New Remote Sensing Sensor for the Submesoscale Sea Surface Wind Vectors: Bridging the Gap between Small-scale and Mesoscale
Wenming Lin (*Nanjing University of Information Science and Technology*);

00:00 RFI Localization Based on Virtual Large Aperture with Compressed Sensing and Joint Satellite-UAV Detection
Ke Chen (*Sun Yat-sen University*);

8:55 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*);

9:10 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*);

9:25 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*);

9:40 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*);

9:55 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*);

10:30 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*);

10:45 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*);

Session 1A2b
Advances of Synthetic Aperture Radar Imaging Techniques: Acquistion and Processing

Tuesday AM, July 28, 2026

Room 2 - CR 2

Organized 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-Matern Model into Bistatic Scattering Formulations for Enhanced Surface Roughness Characterization
Yang Du (*Zhejiang University*); *Yiqin Wang* (*Zhejiang University*); *Zhou Shi* (*Zhejiang University*);

9:30 Modelling and Predicting Soil Moisture Retrieval Perfomances 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*);

9:45 On Imaging Quality Under Beam-pointing Errors in the Earth Observation Moon-based Synthetic Aperture Radar
Zhen Xu (*Hohai Universitity*); *Souadi Khouloud (Linhao Sun)* (*Hohai Universitity*); *Jiaqi Chen* (*Hohai University*); *Kun-Shan Chen* (*Nanjing University*); *Ying Yang* (*Nanjing University*);

10:30 On the Scattering Properties of Moon-based Monostatic/Bistatic SAR for Earth Observation: Geometric Modulation under Orbital Perturbations
Zhen Xu (*Hohai Universitity*); *Jiaqi Chen* (*Hohai University*); *Kun-Shan Chen* (*Nanjing University*); *Ying Yang* (*Nanjing University*);

10:45 Coherent Change Detection using Millimeter-wave GB-SAR
Toshifumi Moriyama (*Nagasaki University*);

11:00 Electromagnetic Scattering from Anisotropic Surfaces with Multiscale Roughness
Ying Yang (*Nanjing University*); *Kun-Shan Chen* (*Nanjing University*);

11:15 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*);

00:00 A Numerical Study on the Microwave Scattering Mechanism of Ocean Surface at Low Grazing Angles
Zhongbiao Chen (*Nanjing University of Information Science and Technology*); *Runxia Sun* (*Nanjing University of Information Science and Technology*); *Yijun He* (*Nanjing University of Information Science and Technology*);

00:00 Exploring the Integration of Optical and SAR Data for Sargassum Detection
Sree Juwel Kumar Chowdhury (*Korea Institute of Ocean Science & Technology*); *Chan-Su Yang* (*National Korea Maritime & Ocean University*);

00:00 A Study on the Sentinel-1 Dual-polarimetric SAR-based Coastal Change Detection and Characterization
Sree Juwel Kumar Chowdhury (*Korea Institute of Ocean Science & Technology*); *Chan-Su Yang* (*National Korea Maritime & Ocean University*); *Armando Marino* (*University of Stirling*);

Session 1A4
Advances in Intelligent Electromagnetic Computation and Optimization Techniques

Tuesday AM, July 28, 2026

Room 4 - CR 8

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*); *Haotian 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*);

00:00 Towards Efficient Optimization of Microwave Devices: Integrating Feature Assistance with Machine Learning
Invited
Jing Jin (*Central China Normal University*); *Hai Lin* (*Central China Normal University*);

9:40 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*);

10:30 Physics-driven Inverse Design of Multilayer Resistive Film Absorbers
Huini Li (*University of Electronic Science and Technology of China*); *Qiming Wang* (*University of Electronic Science and Technology of China*); *Xiangkai Gao* (*University of Electronic Science and Technology of China*); *Min Zhang* (*Shenyang Aircraft Design & Research Institute*); *Yang Zhou* (*University of Electronic Since and Technology of China*);

10:45 Adjoint-based Material Characterization for Si-based 3-D Heterogeneous Integration
Zi Xing Wei (*Hangzhou Dianzi University*); *Kuiwen Xu* (*Hangzhou Dianzi University*);

11:00 Domain-knowledge Retrieval-augmented Generation for Design of Electromagnetic Metasurfaces
Yan Zhang (*Southeast University*); *Jian Wei You* (*Southeast University*);

11:15 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*);

11:30 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 9

Organized by Shuai Zhang, Jiang Xiong

Chaired by Jiang Xiong

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*); *Mei Song Tong* (*Tongji 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 Frolund 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*);

00:00 Physics-aware Spatio-temporal Graph Neural Networks for Bandwidth Allocation in Hybrid LEO-MEO Constellations
Utkarsh Agrawal (*SRM Institute of Science and Technology*); *Rohan Rajeev Kumar* (*SRM Institute of Science and Technology*); *Abinash Kodamsingh* (*SRM Institute of Science and Technology*); *Diwakar R. Marur* (*SRM Institute of Science and Technology*);

00:00 Eyes on the Air: Vision-driven Programmable Metasurface Beam Tracking with Zero-feedback
Yufei Zhao (*Nanyang Technological University*); *Deyu Lin* (*Nanchang University*); *Yujie Zhang* (*Nanyang Technological University*);

Session 1A5b
Metasurface & Metamaterials Antenna

Tuesday AM, July 28, 2026

Room 5 - CR 9

10:30 A High-scanning-rate Dual-dand Leaky-wave Antenna Based on SSPPs that can Suppress the Open Stopband Effect
He Xu (*Hangzhou Dianzi University*); *Baicao Pan* (*Hangzhou Dianzi University*);

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 Politecnica de Madrid*);

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 Politecnica 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*); *Yipeng Gao* (*Southwest University of Science and Technology*); *Liang Liu* (*Southwest University of Science and Technology*); *Qi Chen* (*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 1A6
High Power Microwaves: Sources and Applications 1

Tuesday AM, July 28, 2026

Room 6 - CR 10

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

Chaired by Mikhail Yu. Glyavin, Nikolai Yu. Peskov

8:00 Invited Results and Trends in High Power Gyrotron Development
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
Mikhail Yu. Glyavin (*Institute of Applied Physics, Russian Academy of Sciencess*); *Ivan M. Letavin* (*Institute of Applied Physics Russian Academy of Sciences*); *Ekaterina M. Novak* (*Institute of Applied Physics, Russian Academy of Sciences*); *Ivan V. Osharin* (*Institute of Applied Physics, Russian Academy of Sciences*); *Andrei V. Savilov* (*Institute of Applied Physics, Russian Academy of Sciences*); *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*); *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 $TE_{\mathbf{49,29}}$-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*); *Jianbo Jin* (*Karlsruhe Institute of Technology*); *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 Pilossof* (*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*);

10:30 Gyrotron Development and Experimental Advance-
Invited ments at KIT
John Jelonnek (*Karlsruhe Institute of Technology*); *B. Baumann* (*Karlsruhe Institute of Technology (KIT)*); *Benjamin Bischofberger* (*Karlsruhe Institute of Technology (KIT)*); *R. Bertazzoni* (*Karlsruhe Institute of Technology (KIT)*); *Benjamin Ell* (*Karlsruhe Institute of Technology (KIT)*); *L. Feuerstein* (*Karlsruhe Institute of Technology (KIT)*); *Gerd Gantenbein* (*Karlsruhe Institute of Technology (KIT)*); *Stefan Illy* (*Karlsruhe Institute of Technology (KIT)*); *Jianbo Jin* (*Karlsruhe Institute of Technology*); *T. Kobarg* (*Karlsruhe Institute of Technology*); *D. Köhler* (*Karlsruhe Institute of Technology*); *D. Mondal* (*Karlsruhe Institute of Technology*); *Moritz Misko* (*Karlsruhe Institute of Technology (KIT)*); *Tomasz Rzesnicki* (*Karlsruhe Institute of Technology (KIT)*); *A. Schmidt* (*Karlsruhe Institute of Technology (KIT)*); *S. Stanculovic* (*Karlsruhe Institute of Technology (KIT)*); *Manfred Thumm* (*Karlsruhe Institute of Technology (KIT)*); *Max Vöhringer* (*Karlsruhe Institute of Technology (KIT)*); *J. Weggen* (*Karlsruhe Institute of Technology (KIT)*); *N. Wirth* (*Karlsruhe Institute of Technology (KIT)*); *Chuanren Wu* (*Karlsruhe Institute of Technology (KIT)*);

10:50 Research on High-power Gyro-devices in Shenzhen Uni-
Invited versity
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 Quasi-optical Transmission Line
Sergey V. Samsonov (*A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*); *Grigory G. Denisov* (*A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*); *A. A. Bogdashov* (*A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*); *Igor G. Gachev* (*A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*); *Maxim V. Kamenskiy* (*A. V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*);

11:25 Multifrequency Gyromultiplier with Sectioned Electron Beam
Xianfei Chen (*Huazhong University of Science and Technology*); *Houxiu Xiao* (*Huazhong University of Science and Technology*); *Shaozhe Zhang* (*Huazhong University of Science and Technology*); *Donghui Xia* (*Huazhong University of Science and Technology*); *Xiaotao Han* (*Huazhong University of Science and Technology*);

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*);

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

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

8:00 Frequency Band Applicability Analysis of Two Approximation Methods for VLF Propagation in the Earth-ionosphere Waveguide
Jiafan Wang (*Xi'an University of Technology*); *YuRong 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*);

8:03 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*); *Zhaoyuan Wang* (*Nanjing University of Science and Technology*); *Dazhi Ding* (*Nanjing University of Science and Technology*);

8:06 Surface Phonon Polariton Resonances in a Hexagonal 6H-SiC Cylinder Array Excited by a Cylindrical Wave
Nikita D. Aniutin (*Russian New University*);

8:09 Enhancing Goos-Hänchen Shift with Guided Mode Resonance in Temporal Grating
Youxiu Yu (*Nanjing University of Aeronautics and Astronautics*);

8:12 Broadband Polarization Conversion Metasurface Based on Graphene-assembled Films
Xinrui Zhao (*Wuhan University of Technology*); *Haoran Zu* (*Wuhan University of Technology*); *Ronggu Song* (*Wuhan University of Technology*);

8:15 Disordered Metasurfaces for High-fidelity Transmission Imaging and Wide-gamut Matte Camouflage Mimicry
Jin Qin (*Nanjing University*); *Tao Yang* (*Nanjing University*); *Xiaolong Wei* (*Nanjing University*); *Xiang Xiong* (*Nanjing University*); *Jiatong Shi* (*Nanjing University*); *Hongchen Chu* (*Nanjing Normal University*); *Ruwen Peng* (*Nanjing University*); *Mu Wang* (*Nanjing University*); *Yun Lai* (*Nanjing University*);

8:18 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*);

8:21 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*);

8:24 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*);

8:27 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*);

8:30 Metasurface Enhanced Mid-infrared Photothermal Spectroscopy
Tianrun Zhang (*Zhejiang University*); *Zhibin Hu* (*Westlake University*); *Siying Peng* (*Westlake University*); *Delong Zhang* (*Zhejiang University*);

8:33 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*);

8:36 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)*);

8:39 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*);

8:42 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*);

8:45 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*);

8:48 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*);

8:51 Reconfigurable Nanophotonic Physical Unclonable Function Based on Disordered Electrochromic Tungsten Oxide
Xiaokang Wang (*University of Electronic Science and Technology of China*); *Feiliang Chen* (*University of Electronic Science and Technology of China*); *Haonian Fang* (*University of Electronic Science and Technology of China*); *Ruijie Hui* (*University of Electronic Science and Technology of China*); *Yang Liu* (*University of Electronic Science and Technology of China*); *Fan Yang* (*University of Electronic Science and Technology of China*); *Haiquan Zhao* (*University of Electronic Science and Technology of China*); *Hao Jiang* (*University of Electronic Science and Technology of China*); *Mo Li* (*University of Electronic Science and Technology of China*); *Jian Zhang* (*University of Electronic Science and Technology of China*);

8:54 A Dual-band Co-aperture Metasurface Slot Antenna for Bidirectional Tunnel Coverage at 2.4 GHz and 5.8 GHz
Ruibo Chen (*Xi'an University of Science and Technology*); *Wang Yao* (*Wuhan University*); *Xiaojun Huang* (*Xi'an University of Science and Technology*);

8:57 Efficient Transformer-based S-parameter Extraction for Multiple Transmission Lines in PCB
Ke Guo (); *Quan Chen* ();

9:00 A 40 MHz PVT-stabilized Relaxation Oscillator Using Voltage Averaging Feedback in 55 nm CMOS
Siyun Ding (*Shanghai Jiao Tong University*); *Xuyang Lu* (*Shanghai Jiao Tong Univerity*);

9:03 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*);

9:06 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*);

9:09 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*);

9:12 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*);

9:15 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*);

9:18 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*);

9:21 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*);

9:24 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*);

9:27 Asymptotic Methods for Inverse Scattering Problems with Electrically Large PEC Structures
Yue Feng Tan (*National University of Singapore*); *Xudong Chen* (*National University of Singapore*);

9:30 Inverse Design Based on Machine Learning for Transmissive-Frequency-Selective-Surfaces
Huangjian Fei (*Soochow University*); *Yilin Zheng* (*Soochow University*);

9:33 The Design of the USB 2.0 and Multi-serial Protocol Conversion System Based on FPGA
Anlin Xiong (*Chengdu Technological University*); *Qiao Li* (*Chengdu Technological University*); *Xiaopei Chen* (*Chengdu Technological University*); *Shouqiang Li* (*Chengdu Technological University*);

9:36 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*);

9:39 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*);

9:42 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*);

9:45 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*);

9:48 Designing a Magnetically Tunable Antenna: A Methodology for Multiband Anti-jamming
Mario Chiaparini 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*);

9:51 A New Method for Fast Simulation of Spatially Separated Cascaded Dielectric Metasurfaces
Haoman Wang (*Zhejiang University*); *Haogang Wang* (*Zhejiang University*);

9:54 Drop-shaped Optical Microfiber Enabled Biomechanical Sensor
Yan Xu (*Zhejiang University*); *Lei Zhang* (*Zhejiang University*);

9:57 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.*);

10:00 Flexible Framework for Automated Small-signal Model Extraction for InP/GaAs D-HBTs: Combining Optimization with Physics-based Constraints
Loïc Pouzenc (*Université de Toulouse*); *Mohammed Zaknoune* (*Université de Toulouse*); *Jean Guy Tartarin* (*Université de Toulouse*);

10:03 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*);

10:06 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*);

10:09 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*);

10:12 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*);

10:15 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*);

10:18 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*);

10:21 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*);

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 Transformer-based Neural Network Enabled Subpixel-resolution in Wide-field Meta-microscope
Shanshan Hu (*Nanjing University*); *Tao Li* (*Nanjing University*);

8:15 Invited Metasurface-enabled Thermal Metrology: Advancing High-precision Thermometry through Engineered Dispersion
Mu Ku Chen (*City University of Hong Kong*);

00:00 Invited AI-assisted Broadband Imaging with Metasurfaces
Yaoguang Ma (*Zhejiang University*);

00:00 Invited Controlling the Multiple Degrees of Freedom in Optical Metasurfaces
Bo Xiong (*Zhejiang University*); *Yihan Li* (*Zhejiang University*);

9:15 Invited MEMS-mirrors-coupled Bilayer Metasurfaces
Fei Ding (*Eastern Institute of Technology*);

9:35 Invited Multichannel Light Manipulation and Holography Based on Metasurfaces and Liquid Crystals
Wenjuan Du (*Xiangtan University*);

10:30 Invited Quantum Metasurface for Picometre-scale Displacement Sensing beyond the Diffraction Limit
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*);

10:50 Invited Spatial Light Modulator via Optical Addressed Metasurface
Hui Gao (*Huazhong University of Science and Technology*);

00:00 Invited Metasurface Enabled Multi-information Intelligent Visual Perception
Yue Qiang Hu (*Hunan University*);

11:30 Invited Sub-diffraction Limit Quantum Metrology for Nanofabrication
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*);

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

8:00 Bound States in the Continuum Emergence in Periodic Structures
Ilia Igorevich Karavaev (*ITMO University*); *Andrey A. Bogdanov* (*Harbin Engineering University*);

8:15 Investigation of Directional Scattering on Acoustic Metaatoms
I. Timankova (*ITMO University*); *Mikhail Smagin* (*ITMO University*); *M. Kuzmin* (*ITMO University*); *Yong Li* (*Tongji University*); *Mihail I. Petrov* (*ITMO University*);

8:30 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*);

8:45 Uniguided and Unicoupled 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*);

9:00 Transverse Acoustic Kerker Effect
Mikhail V. Smagin (*ITMO University*); *I. A. Timankova* (*ITMO University*); *Pavel Sergeevich Pankin* (*ITMO University*); *Mihail I. Petrov* (*ITMO University*);

9:15 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*);

9:30 Symmetry-induced Dynamic Exceptional Point within Structured Vortex Fields for Ultrasensitive Metrology
Xiao Li (*Nanjing University of Aeronautics and Astronautics*); *Yangyang Fu* (*Nanjing University of Aeronautics and Astronautics*);

10:30 Low-frequency Broadband Perforated Ventilated Acoustic Metamaterial
Yifan Zhu (*Southeast University*); *Youyu Mo* (*Southeast University*); *Hui Zhang* (*Southeast University*);

10:45 Topological Interface States beyond Fano Resonances in Piezoelectric Microacoustic Metamaterials: Bridging Topological Wave Physics and MEMS Sensing
Davide Pavesi (*Northeastern University*); *Cristian Cassella* (*Northeastern University*);

11:00 Degeneracy of Non-Hermitian Systems: From Exceptional Point to Exceptional Deficiency
Zhen Li (*Hong Kong Baptist University*); *Guancong Ma* (*Hong Kong Baptist University*);

00:00 A Double Negative Acoustic Metamaterial Formed by Helmholtz Resonators
Nikolay Kanev (*Research Institute of Building Physics*);

11:30 Acoustic Density of States and Coherent Sound Radiation
D. A. Klimov (*ITMO University*); *Mikhail V. Smagin* (*ITMO University*); *Marc Dubois* (*Aix-Marseille Université*); *R. Abdeddaim* (*Aix-Marseille Université*); *Stefan Enoch* (*Aix-Marseille Université*); *Mihail I. Petrov* (*ITMO University*);

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

8:20 Invited Synthetic Non-Abelian Gauge Fields for Photons
Yi Yang (*The University of Hong Kong*);

8:40 Invited Brillouin Zone Folding Induced Spin-orbit-locking Chiral BIC and Quasi-BIC
Hao-Chang Mo (*Sun Yat-sen University*); *Xiao-Dong Chen* (*Sun Yat-sen University*);

9:00 Invited Nonequilibrium Topological Phases on Programmable Quantum Processors
Feng Mei (*Shanxi University*);

9:20 Invited Direction-dependent Dissipative Coupling in Photonic Cavities
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*);

10:30 Invited Nonlinear Exceptional Point
Meng Xiao (*Wuhan University*);

10:50 Invited Angular Momentum Conservation in Photonic Lattices with Nontrivial Band-touching
Daohong Song (*Nankai University*);

11:10 Invited Anti-parity-time Symmetry in Photonic Topological Waveguides
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 Invited Soliton Mediated by Skin-mode Localization and Band Nonreciprocity
Kun Ding (*Fudan University*);

11:50 Sensing with Non-Hermitian Exceptional Deficiency
Ziqi Wang (*Hong Kong Baptist University*); *Guancong Ma* (*Baptist University of Hongkong*);

12:05 Chiral Superradiance Phenomena in Waveguide QED and Its Applications
Zhaohang Guo (*Tianjin University*); *Wei Nie* (*Tianjin University*);

00:00 Controlling Wave Phases in NH Curved Space for Light: Non-hermitian Curved Space via Inverted Wave Equation
Chunjuan Zhang (*Hubei University*); *Yangjie Liu* (*Hubei University*); *Zhu Mao* (*Hubei University*); *Bin Zhou* (*Hubei University*); *Benjamin Vial* (*Independent Researcher*);

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

8:00 Invited Aluminum 3D Lithography: Enabling High-dimensional Metasurface for Advanced Sensing
Liaoyong Wen (*Westlake University*);

8:20 Invited Topological Integrated Photonic Chips for Terahertz Wireless Communications
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 Keynote Optical Metasurfaces for Imaging, Sensing, and Display
Junsuk Rho (*Pohang University of Science and Technology (POSTECH)*);

9:25 Invited Compact and Broadband Optical Metamaterials for Analog Processing and Image Computing
L. Yu (*Tampere University*); *J. Pietila* (*Tampere University*); *H. J. Singh* (*Tampere University*); *A. Nieminen* (*Tampere University*); *Humeyra Caglayan* (*Einhoven University of Technology*);

9:45 Invited Three Printing Glass Opto-mechanical Elements
Zhihan Hong (*Shanghai Jiao Tong University*);

10:30 Invited Optofluidic 3D Micro-/Nanofabrication of Multi-material Micromachines
Mingchao Zhang (*National University of Singapore*);

10:50 Invited Three-dimensional Direct Laser Writing for Advanced Optical Information Display
Qifeng Ruan (*Harbin Institute of Technology, Shenzhen*);

11:10 Multi-wavelength Light Manipulation by Designer High-dimensional Nanostructures
Cheng-Feng Pan (*Singapore University of Technology and Design*);

00:00 Invited Shape-reconfigurable Structures for Dynamic Visible-to-long-wave Infrared Multiband Regulation
Yujie Ke (*Lingnan University*);

00:00 Invited Deep Learning Empowered Intelligent Design of High-dimensional Metamaterials
Jinfeng Zhu (*Xiamen University*);

00:00 Invited High-resolution Nanoscale 3D Printing of Photonic Crystals in the Visible Range
Wang Zhang (*Hunan 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

00:00 Invited Collective Quantum States in Bragg and Anti-Bragg Superatoms in Waveguide QED
Zhirong Lin (*Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences*);

8:20 Invited Transition Composite Gate and Its Application in Superconducting Quantum Circuit
Sheng Zhang (*University of Science and Technology of China*); *Yun-Jie Wang* (*University of Science and Technology of China*); *Peng Wang* (*University of Science and Technology of China*); *Zhao-Yun Chen* (*Hefei Comprehensive National Science Center*); *Yuchun Wu* (*University of Science and Technology of China*); *Peng Duan* (*University of Science and Technology of China*); *Guoping Guo* (*University of Science and Technology of China*);

00:00 Invited Broader Nonlocal Spectrum in the Pb-InSb Hybrid Three Terminals for Potential Kitaev Chain and DOS-controlled Andreev Molecule
Jie Shen (*Institute of Physics, Chinese Academy of Sciences*);

9:00 Invited Flux Engineering in Superconducting Quantum Devices
Mingtang Deng (*National University of Defense Technology*);

9:20 Invited Gate-controlled Zero-field Superconducting Diode and Andreev Molecule in Semiconducting Nanowire Hybrid Systems
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*);

9:40 Invited Microwave Quantum Routing and Emission of a Single Artificial Atom
Aidar Sultanov (*Leibniz Institute of Photonic Technology*); *E. Mutsenik* (*Leibniz Institute of Photonic Technology*); *L. Kaczmarek* (*Leibniz Institute of Photonic Technology*); *M. Schmelz* (*Leibniz Institute of Photonic Technology*); *G. Oelsner* (*Leibniz Institute of Photonic Technology*); *R. Stolz* (*Leibniz Institute of Photonic Technology*); *Evgeni Il'ichev* (*Leibniz Institute of Photonic Technology*);

10:30 Invited Quantum Acoustoelectric Transport in Moiré Superlattices
Cheng Zhang (*Fudan University*);

10:50 Invited Reconfigurable Photocurrent Response in Anisotropic Semimetal Nb_3SiTe_6 for Position Sensing
Qinsheng Wang (*Beijing Institute of Technology*);

11:10 Invited Emergent Moiré NEMS for Quantum Sensing
Xin Zhang (*Institute of Semiconductors, Chinese Academy of Sciences*);

11:30 Invited Spin-orbit Coupling and Stoichiometric Photogalvanic Effect in Oxygen-substituted VSe_2
Xu Li (*Xiamen University*); *Shiming Wu* (*Xiamen University*); *Yaping Wu* (*Xiamen University*); *Zhiming Wu* (*Xiamen University*); *Junyong Kang* (*Xiamen University*);

11:50 Invited Low-power Two-dimensional Organic Logic and Memory Devices
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 Invited Quantum Simulation of Spin-boson Systems with Trapped-ion
Yiheng Lin (*University of Science and Technology of China*);

8:20 Invited Structural Transitions and Melting of Two-dimensional Ion Crystals in RF Traps
Boris Blinov (*University of Washington*);

8:40 Invited Bosonic Non-linearity with Trapped Ions
Nigel Benjamin Lee (*National University of Singapore*); *Eugene Koh* (*National University of Singapore*); *Rongjie Zhang* (*National University of Singapore*); *Jiacheng You* (*National University of Singapore*); *Mu-Young Kim* (*National University of Singapore*); *Dzmitry Matsukevich* (*National University of Singapore*);

9:00 Invited Progress on Quantum Computation and Simulation with 2D Trapped Ion Crystals
Yukai Wu (*Tsinghua University*);

9:20 Invited Trapped-Ion Quantum Simulation of Chemical Dynamics beyond Born-Oppenheimer
Guido Pagano (*Rice University*);

9:40 Invited Issues on Scaling Long-chain Trapped-ion Quantum Processors
Yao Lu (*Hefei National Laboratory*);

10:30 Invited Quantum Enhancement without Quantum Coherence in a Spin Otto Engine
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 Invited Dynamical Freezing and Enhanced Magnetometry in an Interacting Spin Ensemble
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

00:00 Invited Recent Progress of Quantum Secure Direct Communication
Min Wang (*Beijing Academy of Quantum Information Sciences*);

00:00 Chip-integrated Quantum Signature Network over
Invited 200 km
Yongqiang Du (*Guangxi University*); *Kejin Wei* (*Guangxi University*);

00:00 Non Local Wavefront Correction: From Quantum to
Invited Classical to Computational
Shuai Sun (*National University of Defense Technology*);

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

Tuesday AM, July 28, 2026

Room 14 - VIP R5

Organized by Qian Li, Jiaye Wu

Chaired by Qian Li, Jiaye Wu

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

8:20 Ultrafast Thermo-optic Nonlinearity in Time-varying
Invited Epsilon-Near-Zero Interfaces
Jiaye Wu (*Swiss Federal Institute of Technology Lausanne (EPFL)*); *Xuanyi Liu* (*Sun Yat-sen University*); *Marco Clementi* (*École Polytechnique Fédérale de Lausanne*); *Shuang Qiu* (*Sun Yat-sen University*); *Limin Lin* (*Sun Yat-sen University*); *Zhang-Kai Zhou* (*Sun Yat-Sen University*); *Camille-Sophie Bres* (*Ecole Polytechnique Federale Lausanne*);

8:40 Polarization-entangled Photon Pair Generation from an
Invited Epsilon-near-zero Metasurface
Yuanmu Yang (*Tsinghua University*);

9:00 Manipulation of Epsilon-near-zero Platforms and Appli-
Invited cations towards Complex Photonic Systems
Qian Li (*Peking University*);

9:20 Ultrafast Electron Dynamics and Extreme Nonlinear
Invited Optics in Low-electron-density Drude Materials
Ieng-Wai Un (*South China Normal University*); *Subhajit Sarkar* (*Shiv Nadar Institution of Eminence Deemed to be University*); *Yonatan Sivan* (*Ben-Gurion University of the Negev*);

9:40 Cross-phase Modulation in Epsilon-Near-Zero Metasur-
Invited faces
R. Dhama (*Tampere University*); *Md. I. Hossain* (*Tampere University*); *J. Pietila* (*Tampere University*); *T. Fordell* (*VTT Technical Research Centre of Finland Ltd, National Metrology Institute VTT MIKES*); *Humeyra Caglayan* (*Tampere University*);

Session 1A14b
Nanophotonics in Low-dimensional Materials and Their Applications 1

Tuesday AM, July 28, 2026

Room 14 - VIP R5

Organized by Yunyun Dai, Jiahua Duan

10:30 Novel Electronic States in 2D Semiconducting
Invited Metastable Phase
Jian Gou (*Zhejiang University*);

10:50 Boundary-induced Excitation of Higher-order Hyperbolic 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*);

11:05 What is the Absorption Limit of a Two-dimensional Conductive Film?
Jie Luo (*Soochow University*);

11:20 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*);

00:00 High-pressure Tuning of Hyperbolic Plasmons in Black
Invited Phosphorus
Chong Wang (*Beijing Institute of Technology*);

00:00 Exotic Optical Phenomena of Strongly Anisotropic Po-
Invited laritons at the Nanoscale
Yixi Zhou (*Central University for Nationalities*);

Session 1A15
Advanced Materials and Devices for Optoelectronics and Photonics 1

Tuesday AM, July 28, 2026

Room 15 - CR 18

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

Chaired by Kwang-Sup Lee, Jing Feng

8:00 Keynote — Organic Mixed Ionic-Electronic Conductors for Photothermal Interfaces
Sinoh Park (*Yonsei University*); *Eunkyoung Kim* (*Yonsei University*);

8:30 Invited — PEDOT: PSS Conductive Polymers for Photo-thermal Devices
Yoon Kim (*Hannam University*); *Hyunji Hwang* (*Hannam University*); *Jisoo Jung* (*Hannam University*); *Tae-Dong Kim* (*Hannam University*);

8:50 Invited — Newly Designed Drug Delivery System by Using Nanoprodrugs
Hitoshi Kasai (*Tohoku University*);

9:10 Invited — Sensory Neuromorphic Displays Enabling Health Monitoring and Therapy
Cheolmin Park (*Yonsei University*);

9:30 Invited — High-resolution Optoelectronic Devices Based on Femtosecond Laser Precision Manufacturing
Yue-Feng Liu (*Jilin University*);

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 Invited — Molecular Organization and Emergent Functionality in Optical Cavities
Kenji Hirai (*Hokkaido University*);

11:05 Invited — Block Copolymer Self-assembly for Photonics & Information Security
Sangouk Kim (*KAIST*);

11:25 Invited — Wavefront Engineered Laser Scanning Microscopy Enabling Rapid Three-dimensional Imaging
Yuichi Kozawa (*Tohoku University*);

11:45 Invited — Development of Organic Semiconducting Materials for Organic ELectronics
Yun-Hi Kim (*Gyeongsang National University*);

Session 1A16
Ultrafast and Nonlinear Nanophotonics 2

Tuesday AM, July 28, 2026

Room 16 - CR 19

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

Chaired by Kirill L. Koshelev, Mihail I. Petrov

8:00 Invited — Nanoscale Light Confinement & Scattering: From Classical to Quantum On-chip Meta-devices
Zhaogang Dong (*Singapore University of Technology and Design*);

8:20 — 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*);

8:35 Invited — Quantum Tunneling Induced Nonlinear Optics in Plasmonic Nanocavities
Dangyuan Lei (*City University of Hongkong*);

8:55 Invited — Metamembranes for Linear, Nonlinear, and Tunable Optical Control
Tal Ellenbogen (*Tel-Aviv University*);

9:15 Invited — Moiré Cavity Quantum Electrodynamics
Feng Liu (*Zhejiang University*);

9:35 — 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*);

9:50 Invited — Certification of Level Dynamics in Single-photon Quantum Light Emitters
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*);

10:30 Keynote — Crystalline Signatures in the Nonlinear Response of Gold and Silver Flakes
Sergejs Boroviks (*Swiss Federal Institute of Technology Lausanne (EPFL)*); *Olivier J. F. Martin* (*Swiss Federal Institute of Technology Lausanne (EPFL)*);

11:00 Invited — When Free Electrons Meet Light: Quantum Interactions at the Nanoscale
F. Javier García de Abajo (*ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology*);

11:20 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)*);

11:35 Dark Optical Trapping for Quantum Control of Levi-
Invited tated Masses
Anton V. Zasedatelev (*Aalto University*);

11:55 Tunable Nonlinearities of Nonlocal Free-electron Gas in Plasmonic Heavily Doped Semiconductors
Huatian Hu (*Istituto Italiano di Tecnologia, Center for Biomolecular Nanotechnologies*); *Gonzalo Álvarez-Pérez* (*Italian Institute of Technology (IIT)*); *Antonio Valletta* (*Istituto per la Microelettronica e Microsistemi, Consiglio Nazionale delle Ricerche*); *Marialilia Pea* (*Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche*); *Michele Ortolani* (*Sapienza University of Rome*); *Cristian Ciracì* (*Istituto Italiano di Tecnologia, Center for Biomolecular Nanotechnologies*);

Session 1A17
Metasurface Polarization and Diffraction Optics 2

Tuesday AM, July 28, 2026

Room 17 - CR 20

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*);

00:00 Metasurface-enabled Advanced Displaying
Invited
Cheng Zhang (*Huazhong University of Science and Technology*);

8:50 Metasurface-based Near- and Far-field Vector Hologra-
Invited phy
Dandan Wen (*Northwestern Polytechnical University*);

00:00 Metasurface Imaging and Angular Spectrum Differential
Invited Processing
Lin Chen (*Huazhong University of Science and Technology*);

00:00 Deep-subwavelength Mode Modulation in Microwave
Invited Plasmonic Metamaterials
Xuanru Zhang (*Southeast University*);

00:00 Nonlinear Directional Emission on Monolayer MoS_2 by Optical Orbit-orbit Coupling
Xianglong Wang (*University of Science and Technology of China*); *Jincheng Ni* (*University of Science and Technology of China*);

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:
Invited From Visible Switching to Near-infrared Bistability
Tianyue Zhang (*Beijing University of Posts and Telecommunications*); *Ying Che* (*Jinan University*); *Peng Lu* (*Beijing University of Posts and Telecommunications*);

00:00 Metasurface Polarization Modulation, Detection and
Invited Imaging
Yue Qiang Hu (*Hunan University*);

11:40 Polarization Control via Artificial Optical Nonlinearity
Invited in Dielectric Metasurfaces
Fuyong Yue (*Centre Énergie Matériaux Télécommunications (INRS-EMT)*); *Giacomo Balistreri* (*Centre Énergie Matériaux Télécommunications (INRS-EMT)*); *Nicola Montaut* (*Centre Énergie Matériaux Télécommunications (INRS-EMT)*); *Fabrizio Riminucci* (*Università del Salento, Strada Provinciale Lecce-Monteroni, Campus Ecotekne*); *Andrea Toma* (*Istituto Italiano di Tecnologia*); *Riccardo Piccoli* (*Centre Énergie Matériaux Télécommunications (INRS-EMT)*); *Stefano Cabrini* (*Molecular Foundry, Lawrence Berkeley National Laboratory*); *Roberto Morandotti* (*Institut National de la Recherche Scientifique (INRS-EMT)*); *Luca Razzari* (*Universite du Quebec*);

Session 1A18
Optical and Spectroscopic Tracking of Nanoscale Dynamics in Living Systems

Tuesday AM, July 28, 2026

Room 18 - VIP R8

Organized by Seok-Cheol Hong, Hyeon Jeong Lee

Chaired by Seok-Cheol Hong, Hyeon Jeong Lee

8:00 Surface-enhanced Raman Spectroscopy for Metabolite
Invited Detection in Serum
Jian Ye (*Shanghai Jiao Tong University*);

8:20 Invited Label-free Optical Nanoscopy of Intracellular Trafficking in Living Cells
Seok-Cheol Hong (*Korea University*);

8:40 Invited Nanomolar-sensitivity Chemical Imaging of Single Bacteria via Metasurface Photothermal Microscopy
Siying Peng (*Westlake University*);

9:00 Invited Periodic Stiffness Encoded in Genomes Governs DNA Mechanics
Chanwoo Kim (*Ulsan National Institute of Science and Technology*); *Hajin Kim* (*Ulsan National Institute of Science and Technology*);

9:20 Invited How Do Cells Sense the Physical World: Measuring Integrin Force and Its Loading Rate
Myung Hyun Jo (*Korea University*);

9:40 Invited Characterizing Spatiotemporal Alterations in Integrin Tension during Cancer Metastasis Using an Optical Single-molecule Force Probe
Byoung Choul Kim (*Yonsei University College of Medicine*);

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*); *Delong Zhang* (*Zhejiang University*);

11:15 Sensing Chemical Bonds by Fluorescence-detected Mid-infrared Photothermal Microscopy
Jingwen Duan (*Zhejiang University*); *Hyeon Jeong Lee* (*Zhejiang University*);

00:00 Bio-chemical Visualization through Photothermal IR and Stimulated Raman Spectroscopy
Hailong Hu (*Photothermal Spectroscopy Corp@China*); *Changlong Liu* (*Photothermal Spectroscopy Corp@China*);

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, Meng Xiao

8:00 Invited Exotic Band Engineering and Topological Physics with Synthetic Frequency Dimension
Guangzhen Li (*Shanghai Jiao Tong University*); *Luqi Yuan* (*Shanghai Jiao Tong University*);

8:20 Invited Topological Photonic Crystal Fiber
Bofeng Zhu (*Nanyang Technological University*); *Qi Jie Wang* (*Nanyang Technological University*); *Yidong Chong* (*Nanyang Technological University*);

8:40 Invited Three-dimensional Photonic Quantum Hall Effect of Fermi Arcs
Zhengting Wu (*Southern University of Science and Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

9:00 Invited Topological Antilaser
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*); *Haoran 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 Invited Zero-order Landau Modes Propagating along Bulk and Edge Channels in an Aperiodic Acoustic Structure Enabled by a Synthetic Gauge Field
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*);

10:30 Multiple Unidirectional Valley-locked Chiral Zero Modes
Invited Arising from Large Chern Numbers
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 Topo-
Invited logical Anchors of Nodal Lines
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
Invited Non-reciprocity in Non-Hermitian Systems
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-
Invited near-zero Media
Iñigo Liberal (*Universidad Pública de Navarra, Campus Arrosadía*);

00:00 Analog Computing with Epsilon-near-zero Metamateri-
Invited als
Pengyu Fu (*Tsinghua University*); *Yue Li* (*Tsinghua University*);

8:40 Integrated Nanophotonics with Structured Nanoscale
Invited Materials
Danqing Wang (*Fudan University*);

9:00 Non-Hermitian Zero-index Materials for Manipulating
Invited Exceptional Points
Jie Luo (*Soochow University*);

9:20 Invisible Sensors with Enhanced Sensitivity by Exotic
Invited Metamaterials
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*);

10:30 Planar Near-Zero-Index Metamaterials for Radiation
Invited Engineering
Ziheng Zhou (*Fuzhou University*);

10:50 Achieving Polarization-independent Transformation-invariant Metamaterials
Tongshuang Tian (*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*); *ZeGuo 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*); *Huaixin 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
Invited Free Electron Rabi Oscillations
Yiming Pan (*ShanghaiTech University*); *Bin Zhang* (*ShanghaiTech University*); *Daniel Podolsky* (*ShanghaiTech University*);

8:55 Integrated Photonic Chips for Free-electron-photon In-
Invited teractions
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*);

10:30 Free-electron Radiation from Highly-correlated Electron
Invited Beams
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*);

10:50 Reconfigurable Electron-beam-driven Light Generation
Invited in Tunable Finite Arrays
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*);

11:10 Out-of-Equilibrium Thermally Excited Plasmonic Hybrid Modes Electron Spectroscopy
David Corbella-Blanch (*ICFO-Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology*); *Cruz I. Velasco* (*ICFO — Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology*); *F. Javier García de Abajo* (*ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology*);

11:25 High-dimensional Entanglement with Orbital Angular Momentum States of Quantum Structured Free-electron
Leshi Zhao (*Peking University*); *Jing Li* (*Peking University*); *Yunquan Liu* (*Peking University*);

11:40 Free Electrons as Flying Ancillas for Quantum Optical State Tomography
Yuhan Jiang (*Peking University*); *Jing Li* (*Peking University*); *Dixuan Wu* (*Peking University*); *Yunquan Liu* (*Peking University*);

11:55 Indirect Multiphoton Scattering between Light and Bulk Plasmons via Ultrafast Free Electrons
Ruoyu Chen (*ShanghaiTech University*); *Jun Li* (*Institute of Physics, Chinese Academy of Sciences*); *Qiaofei Pan* (*Tongji University*); *Dingguo Zheng* (*Institute of Physics, Chinese Academy of Sciences*); *Bin Zhang* (*Tel Aviv University*); *Ye Tian* (*Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences*); *Jianqi Li* (*Institute of Physics, Chinese Academy of Sciences*); *Huaixin Yang* (*Institute of Physics, Chinese Academy of Sciences*); *Yiming Pan* (*ShanghaiTech University*);

Session 1A22a
Poster Session for Best Student Presentation Awards Competition - Part 2

Tuesday AM, July 28, 2026

Poster Area

Session 1A22b
Poster Session 2

Tuesday AM, July 28, 2026
9:00 AM - 12:00 AM
Poster Area

00:00 An APAR-based Method for Coastal Sea Surface Salinity Retrieval under Rainy Conditions
Wen Fan (*Beijing Information Science and Technology University*); *Lanjie Zhang* (*Beijing Information Science and Technology University*); *Wenyu Wang* (*National Space Science Center, Chinese Academy of Sciences*);

00:00 Circular Fourier-basis Selection for Solving Electromagnetic Inverse Scattering Problem
Qianlei Luo (*Air Force Engineering University*); *Yulong Zhou* (*Air Force Engineering University*); *Huanhuan Yang* (*Air Force Engineering University*); *Tong Li* (*Air Force Engineering University*); *Tianhao Wu* (*Air Force Engineering University*); *Jing Zhou* (*Air Force Engineering University*); *Lei Shi* (*Air Force Engineering University*);

00:00 Dual-stream 1D-CNN with CBAM for Simultaneous Fault Diagnosis in Energy Storage Converters
Yuchen Zhang (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Qicao Chen* (*Southwest University of Science and Technology*); *Qi Wang* (*Southwest University of Science and Technology*); *Changjie Huang* (*Southwest University of Science and Technology*);

00:00 Design of an Efficient E-class Digital Power Amplification System for Medium-wave Communication
Yining Qing (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yonghao Lu* (*Southwest University of Science and Technology*); *Yong Li* (*Southwest University of Science and Technology*); *Qilong Yu* (*Southwest University of Science and Technology*); *Jie Deng* (*Southwest University of Science and Technology*);

00:00 Unsupervised Battery Consistency Detection via Pairwise Dynamic Time Warping and Isolation Forest
Hongrui Yu (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haotian Shi* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Yuheng Gao* (*Southwest University of Science and Technology*); *Rui Chen* (*Southwest University of Science and Technology*);

00:00 Study on Output Power of a WPT System Based on Dual-inverter Phase-shift Regulation
Hao Yang (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Guozheng Zhang* (*Southwest University of Science and Technology*); *Lei Zhao* (*Southwest University of Science and Technology*); *Xinyang Huang* (*Southwest University of Science and Technology*);

00:00 Design of a Low-temperature-coefficient and High-PSRR Bandgap Reference
Xiang Yin (*Southwest Jiaotong University*); *Quanyuan Feng* (*Southwest Jiaotong University*); *Chunyu Xia* (*Chengdu Technological University*);

00:00 Towards Edge Deployment: A Study on Lightweight Transformer-MLP Networks for Predictive Maintenance
Yi Fan Guo (*Tongji University*); *De Liang Cao* (*Tongji University*); *Ya Ming Xie* (*Tongji University*); *Guo Chun Wan* (*Tongji University*);

00:00 Dielectric Properties of Liquid Media Based on a Single-pole Debye Model with Ionic Conduction
Hee-Jo Lee (*Daegu University*); *Kyung-A Hyun* (*Sungshin Women's University*);

00:00 A 57–66 GHz SiGe BiCMOS Transmitter with a Power-scalable Power Amplifier and a Wide-tuning Phase-locked Loop
Yuqian Han (*Guangzhou University*); *Lin Peng* (*Guangzhou University*); *Keshan Guo* (*Guangzhou University*); *Yibo Li* (*Guangzhou University*); *Yufan Xie* (*Guangzhou University*); *Yuming Su* (*Guangzhou University*); *Mengding Guo* (*Guangzhou University*);

00:00 Sum-difference Channel Fusion for Ground-based Radar LSS Target Detection
Xueyan Kang (*National Space Science Center, Chinese Academy of Sciences*); *Yunhua Zhang* (*National Space Science Center, Chinese Academy of Sciences*); *Jiefang Yang* (*National Space Science Center, Chinese Academy of Sciences*); *Xiao Dong* (*National Space Science Center, Chinese Academy of Sciences*); *Wenshuai Zhai* (*National Space Science Center, Chinese Academy of Sciences*); *Na Liu* (*National Space Science Center, Chinese Academy of Sciences*); *Na Liu* (*National Space Science Center, Chinese Academy of Sciences*);

00:00 Magnitude Vector Fitting Algorithm Based on Maximum Absolute Error Control and Broadband $\boldsymbol{S}$-parameter Modeling of Microwave Devices
Kaizhen Lv (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Shengzun Wang* (*Southwest University of Science and Technology*); *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*);

00:00 New Approach for Development of Intense Low-energy Ion Beams Source for Ion Beam Figuring
Vadim A. Skalyga (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *I. V. Izotov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. V. Golubev* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *A. V. Polyakov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. S. Vybin* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *A. E. Pestov* (*Institute for Physics of Microstructures of the Russian Academy of Sciences*);

00:00 Numerical Analysis of Modeling Nonlinear Dynamics in Ring Resonators
Denis Zurikovs (*Riga Technical University*); *Kristaps Rubuls* (*Riga Technical University*); *Ints Murans* (*Riga Technical University*); *Patriks Morevs* (*Riga Technical University*); *Lu Zhang* (*Zhejiang University*); *Xianbin Yu* (*Zhejiang University*); *Xiaodan Pang* (*Zhejiang University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Oskars Ozolins* (*Riga Technical University, Latvian Academy of Sciences*);

00:00 Recognition of Surface Defects on Targets Based on HRRP and Angle-aware Deep Learning
Jiahao Xu (*Xidian University*); *Yue Li* (*Xidian University*); *Hao Li* (*National Key Laboratory of Electromagnetic Space Security*); *Yanchun Zuo* (*Xidian University*); *Lixin Guo* (*Xidian University*); *Wei Liu* (*Xidian University*);

00:00 500-Gbit/s Satellite-to-ground Optical Transmission over a 1000-km-equivalent Turbulent Link Based on PS-GMSK and Dual-polarization Reception
Linghang Dai (*Key Laboratory of EMW Information (of Fudan University)*); *Zengyi Xu* (*Fudan University*); *Fang Dong* (*Fudan University*); *Zhe Feng* (*Fudan University*); *Yunkai Wang* (*Fudan University*); *Suning Guan* (*Key Laboratory of EMW Information (of Fudan University)*); *Nan Chi* (*Fudan University*);

00:00 Radiation Characteristics of Triangular Patch Array Antenna in Various Weighting Functions and Feeding Techniques
Achmad Munir (*Institut Teknologi Bandung*); *Muhamad Roihan* (*Telkom University*); *Rizki Surya Permana* (*Telkom University*); *Muhammad Farhan Maulana* (*Telkom University*); *Rheyuniarto Sahlendar Asthan* (*Institut Teknologi Sumatera*); *Novelita Rahayu* (*National Research and Innovation Agency (BRIN)*); *Sulistyaningsih* (*Institut Teknologi Bandung*); *Junas Haidi* (*Institut Teknologi Bandung*); *Fakhruddin Ahmad Nasution* (*Institut Teknologi Bandung*); *Mohammad Ridwan Effendi* (*Institut Teknologi Bandung*);

00:00 A Robust STAP Algorithm for Sparse Array Based on Reweighted Atomic Norm Minimization
Zhigang Duan (*National University of Defense Technology*); *Sui Wang* (*National University of Defense Technology*); *Chongyi Fan* (*National University of Defense Technology*); *Ziyu Han* (*National University of Defense Technology*);

00:00 GS3 and TDR Calibration for Organic and Organomineral Tundra Soils of the Norilsk Urban District
Andrey Yu. Karavayskiy (*Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences*); *Konstantin Victorovich Muzalevskiy* (*Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences*);

00:00 VO_2-based Smart Windows for Transparent Radiative Thermal Control
Jaehyeong Kim (*Yonsei University*); *Dongkyun Kang* (*Yonsei University*); *Jungwoo Pyo* (*Yonsei University*); *Hwajin An* (*Yonsei University*); *Myeongkyu Lee* (*Yonsei University*);

00:00 Fast Data Generation Algorithm for Electromagnetic Scattering Data of Aircraft with Defects
Chenge Shi (*AVIC Xi'an Aircraft Industry Group Company Ltd.*); *Jiahao Xu* (*Xidian University*); *Wei Dong* (*AVIC Xi'an Aircraft Industry Group Company Ltd.*); *Yanchun Zuo* (*Xidian University*);

00:00 Accuracy of Fast Algorithm for Scattering by Low Scattering Target
Wen-Jing Chen (*East China Research Institute of Electronic Engineering*);

00:00 Prediction of Equivalent Electromagnetic Parameters for Honeycomb Structures Based on a Deep Learning Dual-branch Network
Hao-Yang Yu (*Beijing Institute of Technology*); *Ming-Lin Yang* (*Beijing Institute of Technology*); *Xin-Qing Sheng* (*Beijing Institute of Technology*);

00:00 Electromagnetic Compatibility Lifetime Prediction Method Based on Multi-physics Simulation Strategy
Yuan-Hui Huang (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Yuan Zhang* (*Robot Technology Used for Special Environment Key Laboratory of Sichuan Province*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd*); *Xin Cao* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Haiyan Guo* (*Southwest University of Science and Technology*); *Meiying Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 PDN Impedance Flattening Method with Multi-capacitor Parallelization in Power Integrity
Zhongkun Feng (*Southwest University of Science and Technology*); *Jiasheng Chen* (*Southwest University of Science and Technology*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Yujie Song* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 Research on Electromagnetic Scattering Characteristics Measurement Based on Vortex Wave
Xingyun Zhang (*National Key Laboratory of Scattering and Radiation*); *Yang Bai* (*National Key Laboratory of Scattering and Radiation*); *Jiawei Huang* (*National Key Laboratory of Scattering and Radiation*); *Jingxuan Yang* (*National Key Laboratory of Scattering and Radiation*); *Fang Liu* (*National Key Laboratory of Scattering and Radiation*);

00:00 Robust Zero Backscattering in Duality-symmetric Non-Hermitian Systems
Yang Zhang (*Soochow University*); *Jie Luo* (*Soochow University*);

00:00 Reversing Nonlinear Absorption of Resonant Aluminum Metasurfaces
Hailun Xie (*Beijing University of Posts and Telecommunications*); *Lili Gui* (*Beijing University of Posts and Telecommunications*); *Kun Xu* (*Beijing University of Posts and Telecommunications*);

00:00 Laser-induced Terahertz Surface Plasmon Generation in Grating-coupled Bilayer Two-dimensional Electron Gases
Mi Tian (*University of Electronic Science and Technology of China*); *Shengpeng Yang* (*University of Electronic Science and Technology of China (UESTC)*); *Shaomeng Wang* (*University of Electronic Science and Technology of China*); *Yubin Gong* (*University of Electronic Science and Technology of China*); *Chang Jian Tang* (*Sichuan University*);

00:00 A Force-detected Electron Spin Resonance Technique for Synchronous Measurement of Terahertz Wave Frequency and Power
Yuting Lu (*Huazhong University of Science and Technology*); *Zengwen Wang* (*Huazhong University of Science and Technology*); *Shaozhe Zhang* (*Huazhong University of Science and Technology*); *Jianfeng Xie* (*Huazhong University of Science and Technology*); *Houxiu Xiao* (*Huazhong University of Science and Technology*); *Xiaotao Han* (*Huazhong University of Science and Technology*);

Session 1P0
Hot Topics in Photonics and Electromagnetics

Tuesday PM, July 28, 2026

Room 0 - Chongshan Hall A

Organized by Sailing He

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

00:00 Hot Topic 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*);

00:00 Hot Topic The Case for Timetronics
Nikolay I. Zheludev (*University of Southampton*);

00:00 Hot Topic AI in Review Writing: What Is Allowed, What Is Not — A Nature Reviews Electrical Engineering Perspective
Rachel Pei Chin Won (*Nature Reviews Electrical Engineering*);

00:00 Hot Topic Photoacoustic, Light-speed, and Quantum Imaging/Physics
Lihong Wang (*California Institute of Technology*);

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 Retrieval of Aerosol Scattering Phase Function and Polarized Phase Function from Spaceborne Multiangle Polarimetric Observations
Jiachen Ding (*Nanjing University*);

13:15 Assimilating All-sky Satellite Radiance Data for Binary Typhoon Forecasting Using the POD-3DEnVar Method
Mingyang Zhang ();

00:00 AI-driven Reconstruction of WRF-Chem Aerosol Fields Using Spaceborne Lidar
F. Hu (*Wuhan University*); *Feiyue Mao* (*Wuhan University*);

00:00 Small Satellite Humidity Sounding for Global NWP: First Evaluation of CAMS on TY-16 in the CMA-GFS 4D-Var system
Shuting Zhou (*Chengdu University of Information Technology*); *Wei Han* (*Center for Earth System Modelling and Prediction, CMA*); *Zeting Li* (*Nanjing University of Information Science and Technology*); *Zhenzhan Wang* (*National Space Science Center/Center for Space Science and Applied Research, Chinese Academy of Sciences*); *Keyi Chen* (*Chengdu University of Information Technology*); *Bin Li* (*Beijing Guoxin Hangyu Aerospace Technology Co., Ltd.*);

00:00 PCRF: An Independent Cloud Detection Framework for FY-4B GIIRS Hyperspectral Infrared Sounder Using PCA Reconstruction and Random Forest
Kang Zhou (*Nanjing University of Information Science and Technology*); *Wei Han* (*Center for Earth System Modelling and Prediction, CMA*); *Ruoying Yin* (*Center for Earth System Modelling and Prediction, CMA*); *Jinhua Yu* (*Nanjing University of Information Science and Technology*); *Zhiqiu Gao* (*Institute of Atmospheric Physics, Chinese Academy of Sciences*);

00:00 PhySCAT-Net: A Physics-informed Deep Learning Framework for Optimizing Hydrometeor Bulk Scattering Properties Using Satellite Observations
Zeting Li (*Nanjing University of Information Science & Technology*); *Wei Han* (*Center for Earth System Modelling and Prediction, CMA*); *Hejun Xie* (*Zhejiang University*); *Xiaoze Xu* (*Shanghai Academy of Artificial Intelligence for Science (SAIS)*); *Lei Bi* (*Zhejiang University*); *Xiuyu Sun* (*Shanghai Academy of Artificial Intelligence for Science (SAIS)*); *Hao Li* (*Shanghai Academy of Artificial Intelligence for Science (SAIS)*);

14:06 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*);

14:21 AI-empowered Microwave Interferometric Radiometry
Hao Liu (*Center for Space Science and Applied Research, Chinese Academy of Sciences*);

14:36 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*);

14:51 Efficient Aerosol Retrieval via a Hybrid Mamba and Transformer Network
Zike Xu (*Shenzhen University*); *Wenjuan Qi* (*Shenzhen University*); *Yunfei Ye* (*Shenzhen University*); *Huizeng Liu* (*Shenzhen University*); *Guanglang Xu* (*Shenzhen University*);

15:06 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*);

15:21 Passive Remote Sensing of Aerosol Vertical Distribution: Theory and First Results
Jun Wang (*University of Iowa*); *Zhendong Lu* (*University of Iowa*); *Xi Chen* (*University of Iowa*);

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

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

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*);

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

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*);

00:00 Recent Advances in 1D Inverse Scattering Problems as Applied to NDT of Layered Media and Plasma Diagnostics
Shaimaa Elseddiq Abuelsaud Ali Elghetany (*University of Catania*); *Roberto Dima* (*Universita 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*);

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*);

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

14:15 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*);

14:30 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*);

00:00 VIIRS VNP15A2H Leaf Area Index Reconstruction with Preserved Flood-drought Response Signatures
Dongdong Kong (*China University of Geosciences*); *Lunche Wang* (*China University of Geosciences*); *Yongqiang Zhang* (*Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences*); *Xihui Gu* (*China University of Geosciences*); *Xiang Zhang* (*China University of Geosciences*); *Guicai Li* (*China Meteorological Administration*);

15:00 Exploring the Potential of Satellite Precipitation Products for AI-based Large-sample Hydrological Modeling
Han Meng (*Wuhan University*); *Guoqiang Tang* (*Wuhan University*);

00:00 An Innovative Framework for Hourly Satellite Soil Moisture Retrieval via Integrated Spatiotemporal Downscaling Techniques
Peilin Song (*Xi'an Jiaotong University*); *Mengran Wang* (*Xi'an Jiaotong University*); *Lixin Dong* (*China Meteorological Administration*); *Tianjie Zhao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Jingyao Zheng* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Haigen Zhao* (*Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences*); *Jingfeng Huang* (*Zhejiang University*); *Panpan Yao* (*North China University of Water Resources and Electric Power*); *Yongqiang Zhang* (*Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences*);

00:00 Lake Water Storage and River Discharge Monitoring in Data-scarce Regions via Above — Underwater Topographic Similarity
Shanlong Lu (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Yuan Guo* (*International Research Center of Big Data for Sustainable Development Goals*); *Junling Zhang* (*International Research Center of Big Data for Sustainable Development Goals*); *Cong Du* (*International Research Center of Big Data for Sustainable Development Goals*);

00:00 AIEM-constrained PINNs for Ocean SAR Scattering
Mingde Guo (*QianYuan Laboratory*);

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

Tuesday PM, July 28, 2026

Room 4 - CR 8

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 Electromagnetic Graph Neural Networks for Zero-shot Generalization in Indoor Radio Wave Propagation
Haochang Wu (*University College Dublin*); *Hao Qin* (*Sichuan University*); *Xinyue Zhang* (*University College Dublin*); *Xingqi Zhang* (*University of Alberta*);

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 NWP-based Multi-scale Atmospheric Refractivity Modeling for LEO Satellite Link Analysis
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*);

00:00 On the Existence of Pure Toroidal Dipoles: An Angular Spectrum Demonstration
Sinuhe Perea (*Universidad De Burgos*);

00:00 Design and Optimization of Tamm Plasmon Resonance Sensors Using Bayesian Optimization
Lujiang Qian (*Skolkovo Institute of Science and Technology*); *Nikolay Yavich* (*Skolkovo Institute of Science and Technology*); *Alexander Ryabov* (*Skolkovo Institute of Science and Technology*); *Vladimir Vanovskiy* (*Skolkovo Institute of Science and Technology*); *Vasily A. Fedotov* (*Skolkovo Institute of Science and Technology*);

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

Tuesday PM, July 28, 2026

Room 5 - CR 9

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 Wind-disturbance-tolerant UAV High-energy-efficiency Beamforming and Power Allocation Scheme Based on Random Multiplexing
Jichong Guo (*Suzhou University of Science and Technology*); *Keer Chen* (*Suzhou University of Science and Technology*); *Chunxia Su* (*Suzhou University of Science and Technology*); *Heng Luo* (*Suzhou University of Science and Technology*); *Zhiqiang Li* (*Harbin Institute of Technology*);

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

Tuesday PM, July 28, 2026

Room 5 - CR 9

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*);

14:45 A Multi-layer Rotationally Reconfigurable Antenna
Zhihui Wang (*Zhejiang Unversity*); *Long Chen* (*Zhejiang Unversity*); *Peiqin Zhou* (*Zhejiang University*); *Hongliang Song* (*Zhejiang Unversity*); *Zehan Zhao* (*Zhejiang Unversity*); *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 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*);

15:45 Design of a Ku-band Dual-passband Filter with High Selectivity Based on Double-layer Groove Gap Waveguide
Jinpeng Bian (*Nanjing Normal University*); *Zai-Cheng Guo* (*Nanjing Normal University*); *Gang Zhang* (*Nanjing Normal University*);

00:00 Design of a Miniaturized High-power Microwave Filter
Henghui Wang (*China Electronics Technology Group Corporation Fourteenth Research Institute*); *Long Liu* (*Nanjing Research Institute of Electronics Technology*);

00:00 Low-RCS Wideband Circularly Polarized Antenna Using Microstrip Line Filters and Square Ring Absorber
Tian-Xi Feng (*Dalian University of Technology*);

Session 1P6
High Power Microwaves: Sources and Applications 2

Tuesday PM, July 28, 2026

Room 6 - CR 10

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

Chaired by Mikhail Yu. Glyavin, Wenjie Fu

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 Masers Based on Mildly-relativistic Electron Beams for Plasma Diagnostics Systems
Invited
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 Dummy Load
Invited
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 Mihailovich 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*);

00:00 Design and Research on a Compact, High-efficiency S-band Coaxial Relativistic Backward Wave Oscillator
Tengfang Wang (*National University of Defense Technology*); *Peng Zhang* (*National University of Defense Technology*); *Rujin Deng* (*National University of Defense Technology*); *Xingjun Ge* (*National University of Defense Technology*);

Session 1P7
Short-Oral Presentations for Best Student Presentation Awards Competition - Part 3

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

13:00 Hybrid Time-domain Simulation of Electron-RF Interactions and Mode Competition in Magnetrons
Hongbin Kim (*Pohang University of Science and Technology*); *Dong-Yeop Na* (*Pohang University of Science and Technology*);

13:03 Fast 3D Magnetotelluric Forward Modeling with Hierarchical Spectral Elements
Xu Han (*Central South University*); *Kejia Pan* (*Central South University*);

13:06 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*);

13:09 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*);

13:12 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*);

13:15 MEMS Programmable Terahertz Metadevice for Frequency-parallel Multi-gate Opto-logic
Jiahao Li (*Sichuan University*); *Yu-Sheng Lin* (*Aerospace Information Technology University*);

13:18 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*);

13:21 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*);

13:24 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*);

13:27 Observation of Polarized Radiation in Gyromagnetic Zero-index Media
Chunquan Peng (*University of Electronic Science and Technology of China*); *Qiutong 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*);

13:30 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*);

13:33 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*);

13:36 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)*);

13:39 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*);

13:42 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*);

13:45 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*);

13:48 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*);

13:51 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*);

13:54 New Approach to **S**-parameter Calibration in VNA Measurements: Postprocessing Methods for Statistically Significant Data
Loïc Pouzenc (*Université de Toulouse*); *Alexandre Rumeau* (*LAAS-CNRS*); *Damien Saugnon* (*LAAS-CNRS*); *Mohammed Zaknoune* (*Université de Toulouse*); *Jean Guy Tartarin* (*Université de Toulouse*);

13:57 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*);

14:00 Real-time UAV-borne SAR Imaging via Scaling with High-order Phase Error Compensation
Siyuan Zhao (*National University of Singapore*); *Hariharan Mohanabala Krishnan* (*National University of Singapore*); *Lue Wen* (*National University of Singapore*); *Xudong Chen* (*National University of Singapore*);

14:03 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.*);

14:06 A Dual-stream Detection Method for Ground Penetrating Radar Based on Signal-driven Sparse Enhancement
Yuhan Li (*Beijing Institute of Technology*); *Shuangying Sun* (*Beijing Institude 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*);

14:09 Feature Extraction of Pharyngeal Motion Sounds Using a Throat Microphone
Miho Sakai (*Prefectural University of Hiroshima*); *Hisako Orimoto* (*Prefectural University of Hiroshima*);

14:12 High-frequency Water Level Variations in the Upper Yellow River Using GNSS-IR Technology
Tao Zhang (*Henan Polytechnic University*); *Shuanggen Jin* (*Henan Polytechnic University*);

14:15 Effect of Microwave Observations at 50 $\sim$ 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*);

14:18 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*);

14:21 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*);

14:24 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*);

14:27 A Dual Knowledge Base-driven Question Answering System for Automotive EMC
Jian Pan (*Chongqing University*); *Feng Gao* (*Chongqing University*);

14:30 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*);

14:33 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*);

14:36 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*);

14:39 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)*);

14:42 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*);

14:45 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*);

14:48 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*);

14:51 1.98 Tbit/s Satellite-to-ground Laser Communication over 1000 km Equivalent Link Based on Multi-path Multi-beam Transmission and Spatial Diversified Synthetic Aperture Reception
Fang Dong (*Fudan University*); *Haoyu Zhang* (*Fudan University*); *Zhilan Lu* (*Fudan University*); *Yinjun Liu* (*Fudan University*); *Aolong Sun* (*Fudan University*); *Jianfeng Sun* (*Shanghai Satellite Network Research Institute (SSNRI)*); *Junwen Zhang* (*Fudan University*); *Nan Chi* (*Fudan University*);

14:54 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*);

14:57 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*);

15:00 End-to-end SAR Ship Detection from Raw Data Using Adaptive Deep Unfolding Networks
Xiangdong Tan (*National University of Defense Technology*); *Xiangguang Leng* (*National University of Defense Technology*); *Kefeng Ji* (*National University of Defense Technology*); *Gangyao Kuang* (*National University of Defense Technology*);

15:03 Improved Ice Cloud Retrievals Using a Mixed Superellipsoidal Model Constrained by Polarized Radiance
Yizhen Meng (*Zhejiang University*); *Lei Bi* (*Zhejiang University*);

15:06 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*);

15:09 Ultra Robust Multi-bound States in the Continuum Metasurfaces for Generating Complex Quantum States
Zirui Guo (*Yanshan University*); *Jianmei Li* (*Yanshan University*);

15:12 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*);

15:15 Omni-MetaLab: A Physics-aware Autonomous Agent for Robust Metasurface Inverse Design
Peng Yang (*Westlake University*); *Jiacheng Sun* (*Westlake University*); *Liaoyong Wen* (*Westlake University*);

15:18 Kinetics of Photochromic Response in Nanostructured Tungsten Trioxide
Olga A. Lutikova (*Dukhov Automatics Research Institute (VNIIA)*); *Daria P. Kulikova* (*Lomonosov Moscow State University*); *M. E. Dokukin* (*Lomonosov Moscow State University*); *A. V. Baryshev* (*Lomonosov Moscow State University*);

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
Changhao Meng (*Hong Kong University of Science and Technology*); *Che Ting Chan* (*The Hong Kong University of Science and Technology*);

13:15 Observable Geometric Phase Effects in Topological Photonic Crystals
Xing-Xiang Wang (*Shanghai University*); *Xiao Hu* (*Shanghai University*);

13:30 Flat-band Skin Effect
Guancong Ma (*Baptist University of Hongkong*); *Xulong Wang* (*Hong Kong Baptist University*);

13:45 Harnessing Photonic Topological States via Geometry and Dissipation
Mingyang Li (*Fudan University*); *Jing Lin* (*Fudan University*); *Kun Ding* (*Fudan University*);

14:00 Topological Rainbow in Non-Hermitian Systems
Wen Zhao (*Beijing Institute of Technology*); *Cuicui Lu* (*Beijing Institute of Technology*);

14:15 Anti-parity-time Symmetry in Elastostatics
Changqing Chen (*Hong Kong Baptist University*); *Aoxi Wang* (*Hong Kong Baptist University*);

14:30 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*);

14:45 Higher-order Topology in a Photonic Nodal Ring Semimetal
Yuchen Peng (*Westlake University*); *Gui-Geng Liu* (*Westlake University*);

15:00 Leveraging Non-Hermitian Singularities for Enhanced Terahertz Sensing Using Tunable Graphene Metasurfaces
P. Isaac Anand (*National Institute of Technology Calicut*); *Natesan Yogesh* (*National Institute of Technology Calicut*);

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 Topological Acoustic Tweezer
Invited
Xuefeng Zhu (*Huazhong University of Science and Technology*);

13:20 Lightweight Metamaterial-based Vibration and Noise
Invited Reduction Components for Various Equipment
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*);

13:40 Gear Fault Detection via Deep-subwavelength Rainbow
Invited Trapping Effect of Higher-order Topological Mechanical Metamaterials
Baizhan Xia (*Hunan University*);

14:00 Design Principle and Applications of Acoustic Metagratings
Invited
Jun Mei (*South China University of Technology*);

14:20 Acoustic and Vibration Behavior of Compression-torsion
Invited Coupling Metamaterials
Jian Zhu (*Xi'an Jiaotong University*); *Rui Zhang* (*Xi'an Jiaotong University*);

14:40 Tailorable Mechanical Responses of Elastic Metamate-
Invited rial with Intelligent Design Methodology
Desheng Yao (*Xi'an Jiaotong University*);

15:00 Tunable Acoustic Metasurfaces: Recent Advances and
Invited Perspective
Bingyi Liu (*Hefei University of Technology*);

15:20 Observation of Returning Thouless Pumping
Zheyu Cheng (*Nanyang Technological University*); *Sijie 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*);

15:35 Wavefront Control and Wireless Water-air Communica-
Invited tion by Acoustic Metasurface
L. Shi (*Tianjin University*); *H. T. Zhou* (*Tianjin University*); *Yan-Feng Wang* (*Tianjin University*); *Y. S. Wang* (*Tianjin University*);

15:55 Invited Principles, Design, and Fabrication of Subwavelength Low-frequency Broadband Acoustic Black Hole Metamaterials
Yanni Zhang (*Nanjing University of Science and Technology*);

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

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*); *Badreddine 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*); *Yaxiu Sun* (*Harbin Engineering University*); *Tao Jiang* (*Harbin Engineering University*); *Qun Wu* (*Harbin Institute of Technology*); *Kuang Zhang* (*Harbin Institute of Technology*); *Shah Nawaz Burokur* (*Paris Nanterre University*);

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*);

00:00 Design of a 4-bit Self-radiating Reconfigurable Metasurface for High-purity Orbital Angular Momentum (OAM) Generation
Desheng Yang (*Harbin Institute of Technology*); *Yueyi Yuan* (*Harbin Institute of Technology*); *Qun Wu* (*Harbin Institute of Technology*); *Kuang Zhang* (*Harbin Institute of Technology*);

15:45 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*);

Session 1P11
Classical Wave Metamaterials

Tuesday PM, July 28, 2026

Room 11 - CR 15

Organized by Bo Wang, Wenzhe Liu

Chaired by Wenzhe Liu

13:00 Invited Nonreciprocal Wave Propagation Based on Nonreciprocal Bianisotropic Coupling in Metamaterials
Xinhua Wen (*South China University of Technology*);

13:20 Supervelocity Inverse Doppler Effect in Water Waves
Zijian Qin (*Zhejiang University*); *Hongsheng Chen* (*Zhejiang University*); *Huaping Wang* (*Zhejiang University*);

13:35 Invited Acoustic Quantum Skyrmion-valley Hall Effect
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
Invited Crystals
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
Invited Adaptability
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*);

00:00 Testing Holographic Duality on Hyperbolic Circuit
Jingming Chen (*Southern University of Science and Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

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

13:00 Universal Logical Operations in a Silicon Quantum Pro-
Invited cessor
Yu He (*Shenzhen International Quantum Academy*);

13:20 Interplay of Hyperfine Interaction and Spin-Orbit Cou-
Invited pling Effects on a Singlet-Triplet Hole Spin Qubit with High Quality Factor
Chenggang Yang (); *Xiangjun Tan* (); *Jian Zeng* (); *Hongzhang Wang* (); *Zhanning Wang* (); *Wendong Bian* (); *Zhengshan Guo* (); *Jun Lu* (); *Jun-Wei Luo* (); *Tian Pei* (*Beijing Academy of Quantum Information Sciences*);

13:40 Low-charge Noise Germanium Hole Gases for Spin and
Invited Super-semi Quantum Devices
Ji-Yin Wang (*Beijing Academy of Quantum Information Sciences*);

00:00 Semiconductor Quantum Computing Material Growth
Invited and Transport Characterization
Guilei Wang (*Beijing Superstring Academy of Memory Technology*);

14:20 SiGe Materials by Molecular Beam Epitaxy for Quan-
Invited tum Computing
Jieyin Zhang (*Songshan Lake Materials Laboratory*); *Ming Ming* (*Institute of Physics, Chinese Academy of Sciences*); *Jian-Jun Zhang* (*Institute of Physics, Chinese Academy of Sciences*);

00:00 Towards Scalable Silicon Quantum Computing: A
Invited Donor-cluster Architecture for Logical Qubits and Chemical Simulation
Peihao Huang (*International Quantum Academy (Shenzhen)*);

15:00 Universal Doubly Geometric Quantum Gates for High-
Invited order Error Suppression
Chengxian Zhang (*Guangxi University*);

15:20 On-demand Tunable SOC for Silicon Spin Qubit Scal-
Invited able Architecture
Ranran Cai (*University of Science and Technology of China*);

00:00 Trion State Transitions and Hybrid Bound States of Electron Channel-quantum Dot-type Structure at Quantized Magnetic Fields
Zhen-Nan Wang (*Institute of Semiconductors, Chinese Academy of Science*); *Yi Wang* (*Institute of Semiconductors, Chinese Academy of Science*); *Fei-Long Song* (*Institute of Semiconductors, Chinese Academy of Science*); *Shu-Yu Zheng* (*Institute of Physics, Chinese Academy of Sciences*); *Li Lu* (*Institute of Physics, Chinese Academy of Sciences*); *Jun Zhang* (*Institute of Semiconductors, Chinese Academy of Sciences*); *Chi Zhang* (*Institute of Physics, Chinese Academy of Sciences*);

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

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*);

00:00 Compromising Quantum Clock Synchronization by Slow and Persistent Asymmetry Channel Delay Strategy
Bo Liu (*National University of Defense Technology*); *Hui Han* (*National University of Defense Technology*); *Haotian Teng* (*National University of Defense Technology*);

00:00 Recent Developments of Reference Frame Independent QKD
Shihai Sun (*Sun Yat-sen University*);

Session 1P14
Nanophotonics in Low-dimensional Materials and Their Applications 2

Tuesday PM, July 28, 2026

Room 14 - VIP R5

Organized by Yunyun Dai, Jiahua Duan

00:00 Invited Broadband Room-temperature Mid-infrared Detection with 2D Materials and Nanoparticles
Qi Jie Wang (*Nanyang Technological University*);

13:20 Invited Ultrasensitive Mid-infrared Polaritonic Spectroscopy for Nanoscale Molecular Detection and Interfacial Dynamics
Xiaoxia Yang (*National Center for Nanoscience and Technology*);

00:00 Invited THz s-SNOM Technique and Its Applications in Nanophotonics
Shu Chen (*University of Shanghai for Science and Technology (USST)*);

14:00 Invited Harnessing Subwavelength Optical Near Fields for Artificial Bulk Photovoltaic Effect: From Graphene to TMDs
Jingxuan Wei (*University of Electronic Science and Technology of China*);

14:20 Invited Spectrally Tunable Two-dimensional Material Photodetectors for Intelligent Optoelectronics
Hoon Hahn Yoon (*Gwangju Institute of Science and Technology (GIST)*);

14:40 Invited Atomic-scale Investigation of Electron and Phonon Dynamics Using Ultrafast Scanning Tunneling Microscopy
Shaoxiang Sheng (*Zhejiang Qiantang Institute of Basic Sciences*);

15:00 Invited Ultimate Tuning of Hyperbolic Phonon Polaritons
Linglong Zhang (*Nankai University*); *Weiwei Luo* (*Nankai University*); *Wei Cai* (*Nankai University*); *Jingjun Xu* (*Nankai University*);

15:20 Invited Plasmonic Dirac-vortex Cavities for Programmable Lasers
Jun Guan (*The Chinese University of Hong Kong, Shenzhen*);

00:00 Advancements in Nonlinear Optics of 2D Materials
Zhipei Sun (*Aalto University*);

Session 1P15
Advanced Materials and Devices for Optoelectronics and Photonics 2

Tuesday PM, July 28, 2026

Room 15 - CR 18

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

Chaired by Kwang-Sup Lee, Hitoshi Kasai

13:00 Invited Organic Semiconductor Single Crystals for Electromagnetic Radiation Detection and Sensing
Fangxu Yang (*Tianjin University*);

13:20 Invited High-quality Perovskite Semiconductors for Direct X-ray Detection
Guangda Niu (*Huazhong University of Science and Technology*);

13:40 Invited Long-range Order Enables Stable Quantum Dot Light-emitting Diodes
Ya-Kun Wang (*Soochow University*); *Liang-Sheng Liao* (*Soochow University*);

14:00 Invited Nanoscale Pixelated Quantum Dot Light-emitting Devices
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 Invited High Open-circuit Voltage Perovskite/Organic Tandem Solar Cells
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 WSe_2/InSe van der Waals Heterostructures
Haipeng Wang (*Southwest Institute of Technical Physics*); *Wei Zhang* (*Southwest Institute of Technical Physics*); *Tong Li* (*Southwest Institute of Technical Physics*); *Xule Wang* (*Advance China IP Law Office*); *Xiumin Xie* (*Southwest Institute of Technical Physics*); *Yuan Liu* (*Southwest Institute of Technical Physics*); *Shijie Deng* (*Southwest Institute of Technical Physics*); *Mengke Cai* (*Southwest Institute of Technical Physics*); *Beitong Cheng* (*Southwest Institute of Technical Physics*); *Ruomei Jiang* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*);

00:00 Regulating of Evanescent Waves and Their Applications in Lithography
Gaofeng Liang (*Chongqing University*);

00:00 Electromagnetically Driven Exciton Localization in Low-dimensional Lead-free Perovskite Derivatives
Peifen Zhu (*University of Missouri*);

Session 1P16
Ultrafast and Nonlinear Nanophotonics 3

Tuesday PM, July 28, 2026

Room 16 - CR 19

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

Chaired by Kirill L. Koshelev, Mihail I. Petrov

13:00 Active Topological Nanophotonics with Applications to Nonlinear Optics and Multi-beam Lasers
Invited
Jitong Wang (*University College London*); *Nicolae Coriolan Panoiu* (*University College London*);

13:20 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*);

13:40 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* (*Einhoven University of Technology*);

14:00 Kerr Optical Frequency Comb Sources for High-speed Optical Communication Systems
Toms Salgals (*Riga Technical University*); *Janis Alnis* (*University of Latvia*); *Inga Brice* (*University of Latvia*); *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*);

14:15 Empowering Topological Photonics for OAM Manipulation
Keynote
Zhigang Chen (*Nankai University*);

14:45 Integrated Quantum and Nanophotonics with Telecom Quantum Dots
Invited
Elizaveta Semenova (*Technical University of Denmark*);

15:05 Transition Metal Dichalcogenides for High-index Nanophotonics, Nonlinear Optics, and Strong Light-matter Coupling
Invited
Timur O. Shegai (*Chalmers University of Technology*);

15:25 Ultrafast Optical and THz Magnetophotonics
Invited
Vladimir I. Belotelov (*M. V. Lomonosov Moscow State University*);

15:45 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*);

16:00 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*);

00:00 Super-resolution Inspection of Nano-semiconductor via Photothermal Nonlinear Scattering
Invited
Shi-Wei Chu (*National Taiwan University*);

Session 1P17
Metasurface Polarization and Diffraction Optics 3

Tuesday PM, July 28, 2026

Room 17 - CR 20

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 Invited Research on Multifunctional Planar Optical Imaging Based on Liquid Crystals
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*);

00:00 Invited Dynamic Plasmonics with Structured Alkali Metals
Lin Zhou (*Nanjing University*); *Jie Liang* (*Nanjing University*); *Min Xiong* (*Nanjing University*); *Yan Jin* (*Nanjing University*); *Jia Zhu* (*Nanjing University*);

00:00 Invited Research on Fast Generation of 3D Holographic Volumetric Multi-foci Array and Its Application
Chaowei Wang (*University of Science and Technology of China*);

00:00 Invited Super Optical-diffractiom-limit Imaging Enabled by a Multifunction-integrated Metalens
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 Invited Generation of Novel Vortex Beams and Their Applications
Yuanjie Yang (*University of Electronic Science and Technology of China*);

00:00 Invited Chiral Emission from Chirotopic Nanostructures
Yang Chen (*University of Science and Technology of China*);

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

Tuesday PM, July 28, 2026

Room 18 - VIP R8

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

13:00 Keynote Programmable Diffractive Neural Networks for Information Sensing, Processing and Computing in Electromagnetic Space
Qian Ma (*Southeast University*); *Tie Jun Cui* (*Southeast University*);

13:30 Invited Deep-learning Tools to Untangle Light-scattering for Imaging
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 Invited Ultrabroadband and Ultrasensitive SWIR Molecular Fingerprinting via Acoustic MXene Plasmons
Jisung Kwon (*Korea University*); *Changhoon Park* (*Korea University*); *Yury Gogotsi* (*Drexel University*); *Chong Min Koo* (*Sungkyunkwan University*); *Myung-Ki Kim* (*Korea University*);

14:25 Invited Design of Metastructure-enhanced Terahertz Sensors
Li Li (*Harbin Institute of Technology*); *Fei Yan* (*Harbin Institute of Technology*); *Hao Tian* (*Harbin Institute of Technology*);

14:45 Invited Photoinduced Metasurface Tuning for Ultrafast Optical Image Processing
Alexander S. Shorokhov (*Lomonosov Moscow State University*);

15:05 Invited Machine-learning-enhanced Raman Microscopy for Rapid and Sensitive Molecular Diagnostics
Katsumasa Fujita (*The University of Osaka*);

15:25 Invited Radiative Decay Tuning of Metasurface Resonances for Improved Optical Sensing
Stefan A. Maier (*Monash University*);

15:45 Invited Development and Characterizing of Optical Components for Visible and Terahertz Bands
Nikolay V. Petrov (*ITMO University*);

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 Mudi Wang, 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
Invited and Applications
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 Imag-
Invited ing
Dong-Yang Wang (*University of Southampton*);

14:35 Observation of Random-flux-induced Topological Phase
Invited Transition in Gyromagnetic Photonic Crystals
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*);

00:00 Photonic Arbitrary Chern Vectors
Xiang Xi (*Dongguan University of Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

00:00 Photonic Non-Abelian Topological Insulators
Invited
Tianshu Jiang (*Tongji University*);

00:00 Observation of Interaction-induced Delocalization and
Invited Criticality in a Flat-band System
Zhaoju Yang (*Zhejiang University*);

00:00 Topological Hybridisation of Plasmons with Ferrimagnetic Magnons
Cooper Finnigan (*Monash University*); *Mehdi Kargarian* (*Sharif University of Technology*); *Dmitry K. Efimkin* (*Monash University*);

Session 1P20
AI-driven Biophotonics for Medical Diagnosis

Tuesday PM, July 28, 2026

Room 20 - CR 28

Organized by Juergen Popp

Chaired by Juergen Popp

13:00 Full-range Stimulated Raman Scattering Spectroscopy and Imaging for Biomedical Applications
Jin Guo (*Peking University*); *Haojie Zhang* (*Peking University*); *Hanqing Xiong* (*Peking University*);

13:15 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*); *Hyeonsoo 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*);

13:30 The Combination of Raman and AI for Biomedical Applications
Jing Huang (*South China Normal University*);

13:45 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*);

14:00 Exploring Feature Extraction Methods for Raman Spectroscopy: A Comparative Study
Jamile Jafari (*Leibniz Institute of Photonic Technology*); *Thomas Bocklitz* (*Leibniz Institute of Photonic Technology*);

14:15 Machine Learning-assisted Optical Photothermal Infrared Microscopy for Identification of Amyloids and Associated Tissue Interplay
Oxana Klementieva (*Lund University*);

14:30 Rapid On-site Detection of Inflammatory Biomarkers
Invited Using Portable IR and Raman Spectroscopy
Christian W. Huck (*Leopold Franzens Univ Innsbruck*);

14:50 High-speed Multimodal Microscopy for Biomedical Ap-
Invited plications
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*);

15:10 Random Access Raman Spectroscopy with Machine Learning for Rapid Medical Diagnosis
Katsumasa Fujita (*The University of Osaka*); *Yasuaki Kumamoto* (*The University of Osaka*);

15:25 Optical Mapping of the Brain: Use of AI Tools to Reconstruct Cytoarchitectonics and Functional Connectivity
Keynote
Francesco Saverio Pavone (*University of Florence*);

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

Tuesday PM, July 28, 2026

Room 21 - CR 29

Organized by Lan Li, Lei Zhang, Tian Gu

Chaired by Lan Li

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 Metafiber: A Compact Platform for Sensing and Communication
Invited
Tingbiao Guo (*Zhejiang University*);

13:40 Recent Progress on the Flexible Perovskite/CIGS Tandems
Invited
Rui Wang (*Westlake University*);

00:00 Unclonable Optical Labels
Invited
Yu Wang (*Nanjing University (NJU)*);

14:20 Hierarchically Microstructured Dielectric Liquid Crystal Colloid Elastomers with Low-voltage Actuation and Programmable Deformation
Xin Shen (*Zhejiang University*); *Qi Zhao* (*Westlake University*); *Jiu-An Lv* (*Westlake University*);

14:35 Bioinspired Flexible Multidimensional Optical Sensors Based on Meta-integrated InGaAs Photodetectors
Yuting Ye (*Westlake University*); *Jieren Song* (*Zhejiang University*); *Yingjie Tang* (*Westlake University*); *Hui Ma* (*Zhejiang University*); *Qingyan Deng* (*Westlake University*); *Lan Li* (*Westlake University*);

14:50 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*);

15:10 Chalcogenide Base Microring Resonator Arrays: Research Advances and Applications in Photoacoustic Tomography and Wearable Blood Pressure Monitoring
Invited
Zhaohui Li (*Sun Yat-sen University*); *Jingshun Pan* (*South China Normal University*);

15:30 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*);

Session 1P22a
Poster Session for Best Student Presentation Awards Competition - Part 3

Tuesday PM, July 28, 2026

Poster Area

Session 1P22b
Poster Session 3

Tuesday PM, July 28, 2026

14:00 PM - 18:00 PM

Poster Area

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

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

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

00:00 An Algorithmic Framework for LSS UAV Positioning and Trajectory Mapping from FBG Sensor Network Data
Aleksandrs Olins (*Riga Technical University*); *Lilita Gegere* (*Riga Technical University*); *Sintija Berzina* (*Riga Technical University (RTU)*); *Natalja Muračova* (*Riga Technical University*); *Dmytro Vovchuk* (*Riga Technical University*); *Mykola Khobzei* (*Riga Technical University*); *Vladyslav Tkach* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 Low-loss and Low-imbalance O- and C-band MMI Couplers with Optimized Bézier-curve Boundaries and Tapers
Yanyan Li (*Beijing University of Posts and Telecommunications*); *Lei Zhang* (*Beijing University of Posts and Telecommunications*);

00:00 Numerical Simulation of CW LED-side-pumped Nd^{3+}-doped Fiber Laser
Abdulla Qakhkhorov (*Institute of Ion Plasma and Laser Technologies*); *Shermakhamat Payziyev* (*Institute of Ion-Plasma and Laser Technologies*); *Sherzod Begimqulov* (*Institute of Ion Plasma and Laser Technologies*);

00:00 A Low-profile Multi-frequency Shared-aperture Antenna for UAVs
Hong-Yu Liu (*Southwest University of Science and Technology*); *Haonan Huang* (*Southwest University of Science and Technology*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Bing Chen* (*China Automotive Engineering Research Institute Co., Ltd*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*);

00:00 Wideband Dual-circularly Polarized Antenna Based on Magnetic Coupled Symmetrical Slot Structure
Yuekun Sun (*South China University of Technology*); *Chunxu Mao* (*South China University of Technology*);

00:00 An Ultra-low-profile Single-layer Filtering Antenna for 5G Millimeter-wave Communications
Kaixuan Sun (*Aerospace Information of Research Institute, Chinese Academy of Sciences, University of Chinese Academy of Sciences*); *Rui Zhang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Lu Tian* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Yueyan Ren* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Jiawei Wang* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Zhiqiang Zhang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Yong Wang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

00:00 An X-band High-gain Omnidirectional Antenna
Hui Wang (*No. 36 Research Institute of China Electronics Technology Group Corporation*); *Zhiwen Zhang* (*Xi'an University of Science and Technology*); *Ling-Lu Chen* (*No. 36 Research Institute of China Electronics Technology Group Corporation*);

00:00 A High-Q Split-ring Resonator Based on Negative Resistance Circuit for Non-invasive Blood Glucose Monitoring
Zhengjiang Zhao (*Shanghai University*); *Sihui Jia* (*Shanghai University*); *Zijian Gao* (*Shanghai University*); *Yucheng Feng* (*Shanghai University*); *Yongjin Zhou* (*Shanghai University*);

00:00 Design of a Miniaturized High Suppression Ceramic Dielectric Filter for 5G Base Stations
Dongxue Zhang (*Chongqing Institute of Engineering*); *Bing Chen* (*China Automotive Engineering Research Institute Co., Ltd.*); *Rong Hu* (*Chongqing Institute of Engineering*); *Jian Yang* (*Chongqing Institute of Engineering*); *Danfeng Han* (*Changzhi University*);

00:00 Low-frequency Long-pulse Megawatt Gyrotron
Invited
Yuriy K. Kalynov (*Institute of Applied Physics, RAS*); *Vladimir Nikolaevich Manuilov* (*Institute of Applied Physics, RAS*); *Ivan V. Osharin* (*Institute of Applied Physics, RAS*); *Andrei V. Savilov* (*A.V. Gaponov-Grekhov Institute of Applied Physics, RAS*); *Vladislav Yu. Zaslavsky* (*Institute of Applied Physics, RAS*);

00:00 A Compact 1.7–2.3 GHz Power Amplifier with $> 70\%$ Efficiency Based on a CRLH Transmission Line
Katsunaru Urano (*Shibaura Institute of Technology*); *Takuya Itoh* (*Shibaura Institute of Technology*); *Shinichi Tanaka* (*Shibaura Institute of Technology*);

00:00 Electromagnetically Integrated Self-powered Wireless Sensor System Enabled by a Twistron-based CNT Energy Harvester
Chae-Lin Park (*Korea Institute of Industrial Technology*); *Shi Hyeong Kim* (*Korea Institute of Industrial Technology*);

00:00 Single Beam Throughput Estimation of NGSO Satellite Constellation for Broadband Connectivity in Indonesia
Rama Setya Anggara (*Telkom University*); *Heroe Wijanto* (*Telkom University*); *Budi Syihabuddin* (*Telkom University*);

00:00 Longitudinal Variability of Equatorial Spread-F: Comparison between Atlantic and Pacific Sectors during 2004
Zheng Wang (*State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS*); *J. K. Shi* (*State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS*); *Z. W. Cheng* (*State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS*); *Q. Qi* (*Key Laboratory of Media Audio & Video (Communication University of China), Ministry of Education*); *G. J. Wang* (*State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS*); *C. Qiu* (*Key Laboratory of Media Audio & Video (Communication University of China), Ministry of Education*); *X. Wang* (*State Key Laboratory of Solar Activity and Space Weather, NSSC/CAS*);

00:00 Distributed SAR Spectral Fusion Strategy Based on a Modified SLC Image Model
Kexin Fan (*National University of Defense Technology*); *Zhengquan Zhou* (*National University of Defense Technology*); *Chongyi Fan* (*National University of Defense Technology*); *Xiaotao Huang* (*National University of Defense Technology*); *Yueli Li* (*National University of Defense Technology*);

00:00 Synchronization Method for Phase-coded Passive Bistatic Radar Based on Segmented Differential Correlation
Yuxi Zheng (*National University of Defense Technology*); *Jiameng Pan* (*National University of Defense Technology*); *Qinglong Bao* (*National University of Defense Technology*); *Xuan Zhang* (*Xi'an Electronic Engineering Research Institute*); *Jian Chen* (*National University of Defense Technology*);

00:00 Ship Detection from Landsat-8/9 Imageries Using Deep Neural Networks
Jiahao Li (*Fudan University*); *Geng-Ming Jiang* (*Fudan University*);

00:00 Prediction of Internal Solitary Wave Propagation in the Indonesian Seas Using Multi-source Satellite Remote Sensing Combined with a Dual-network Model
Lina Sun (*First Institute of Oceanography, Ministry of Natural Resources*); *J. M. Meng* (*First Institute of Oceanography, Ministry of Natural Resources*); *Z. X. Cao* (*First Institute of Oceanography, Ministry of Natural Resources*); *J. L. Zhao* (*First Institute of Oceanography, Ministry of Natural Resources*); *Hao Zhang* (*First Institute of Oceanography, Ministry of Natural Resources*);

00:00 A Study on Microwave Inverse Scattering Imaging Based on Dominant Current Scheme (DCS) Supervision
Xingbao Zhai (*Zhengzhou University*); *Fazhong Shen* (*Zhengzhou University*);

00:00 Midas: Dynamic Virtual Machine Placement for Mission-critical Cloud Applications with Strict Interference Constraints
Xiao Gao (*Tongji University*); *Zhongwei Xu* (*Tongji University*); *Meng Mei* (*Tongji University*); *Xilong Pei* (*Tongji University*); *Jiaxing Chen* (*Tongji University*);

00:00 Full-bridge Inverter Driver for Magnetically Isolated Marx Circuits
Jie Deng (*Southwest University of Science and Technology*); *Cong Fu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Shunqiang Wan* (*Southwest University of Science and Technology*); *Yuheng Gao* (*Southwest University of Science and Technology*); *Yining Qing* (*Southwest University of Science and Technology*);

00:00 A Smart Detection Method for Battery Pack Voltage Inconsistency Based on Adaptive Time Window Division and Multi-dimensional Deviation Metrics
Rui Chen (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haotian Shi* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Hongrui Yu* (*Southwest University of Science and Technology*); *Yuheng Gao* (*Southwest University of Science and Technology*);

00:00 Wireless Power Transfer System with Parity-time Symmetry Based on High-order Compensation
Lei Zhao (*Southwest University of Science and Technology*); *Yi Yu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Qi Liu* (*Southwest University of Science and Technology*); *Hao Yang* (*Southwest University of Science and Technology*); *Cheng Chen* (*Southwest University of Science and Technology*); *Chengcheng Wen* (*Southwest University of Science and Technology*); *Guozheng Zhang* (*Southwest University of Science and Technology*);

00:00 The Study of the Performance Optimization of VDMOS
Chiyuan Wang (*Chengdu Technological University*); *Chunyu Xia* (*Chengdu Technological University*); *Xiaopei Chen* (*Chengdu Technological University*);

00:00 Optimized Design of a Multi-algorithm Integrated Hearing Aid Based on ESP32
Feng Yu Liu (*Tongji University*); *De Liang Cao* (*Tongji University*); *Guo Chun Wan* (*Tongji University*);

00:00 Research and Design of a Portable Integrated Microfluidic Device
Chengyu Ma (*Northwestern Polytechnical University*); *Xilong Lu* (*Northwestern Polytechnical University*);

00:00 A D-band Eight-way Power-combined CMOS Transmitter Front-end with Digital Adaptive Bias and PLL Co-design for Back-off Efficiency Enhancement
Yufan Xie (*Guangzhou University*); *Lin Peng* (*Guangzhou University*); *Keshan Guo* (*Guangzhou University*); *Yibo Li* (*Guangzhou University*); *Yuqian Han* (*Guangzhou University*); *Yuming Su* (*Guangzhou University*); *Mengding Guo* (*Guangzhou University*);

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 Neural Network Model for Robust River Water Level Estimation
Zeyu Li (*Nanjing University of Posts and Telecommunications*); *Lingshan Bo* (*Nanjing University of Posts and Telecommunications*); *Jun Ao* (*Nanjing University of Posts and Telecommunications*); *Xiaolin Li* (*Nanjing University of Posts and Telecommunications*); *Yan Jia* (*Nanjing University of Posts and Telecommunications*);

8:45 Quantitative Analysis and Zoning of Driving Factors of GNSS-R Land Surface Reflectivity Spatial Differentiation
Zixuan Guo (*Nanjing University of Information Science and Technology*); *Qingyun Yan* (*Nanjing University of Information Science and Technology*);

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 AI-based Estimation of Atmospheric Turbulence Strength from Long-range Imagery
Grigorii 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*); *Grigorii 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)*);

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

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 Ivonin* (*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*); *Xiuqing Hu* (*National Satellite Meteorological Centre (National Center for Space Weather), China Meteorological Administration*);

00:00 High-frequency Hybrid Sky-surface Wave Propagation Path Determination Using First-order Bragg Scattering Constraints
Xianzhou Yi (*National University of Defense Technology*); *Junjie Zhou* (*National University of Defense Technology*);

00:00 Quantifying Climate Risk on Cryosphere in the Central Himalayas Since 1990
Abhishek Banerjee (*Henan Polytechnic University*); *Shuanggen Jin* (*Henan Polytechnic University*);

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

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

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

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

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

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

10:30 Invited Imaging in Time-varying Scattering Media
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*);

Session 2A3b
Remote Sensing of the Earth, Ocean, and Atmosphere

Wednesday AM, July 29, 2026

Room 3 - CR 3

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 Mechanismer
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 I. Carranza-García* (*Instituto Politécnico Nacional*);

11:30 Information System for Analysis of Geophysical Data Obtained by Radiophysical Instruments of ISTP SB RAS
Nikita A. Gromik (*Institute of Solar-Terrestrial Physics SB RAS*); *Vladimir Alexeyevich Ivonin* (*Institute of Solar-Terrestrial Physics SB RAS*); *Valentin P. Lebedev* (*Institute of Solar-Terrestrial Physics, Siberian Branch, Russian Academy of Sciences*);

Session 2A4
Electromagnetic Forces, from Fundamentals to Applications 1

Wednesday AM, July 29, 2026

Room 4 - CR 8

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

Chaired by Olivier J. F. Martin, Xiaohao Xu

8:00 Invited Metaphotonics for Biomedical Imaging and Sensing using Electromagnetic Energy
Inki Kim (*Sungkyunkwan University (SKKU)*);

8:20 Invited Optical Manipulation in Vivo
Xiaoshuai Liu (*Guangzhou University*);

8:40 Invited Dielectrophoresis of Colloids in Electrolyte Conductivity Gradients
Raúl Fernández-Mateo (*Universidad de Sevilla*); *Víctor Calero* (*Universidad de Oviedo*); *Pablo García-Sánchez* (*Universidad de Sevilla*); *Hywel Morgan* (*University of Southampton*); *Antonio Ramos* (*Universidad de Sevilla*);

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 Invited Coherent Spin Control in a Rapidly Rotating Nanodiamond Levitated in an Ion Trap
Yuanbin Jin (*Shanxi University*);

9:50 Optical Forces Arising from Imaginary Poynting Momentum
Yuan Zhou (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*);

10:30 Invited Dielectrophoretic Force Estimation for Enhanced Particle Control
Siarhei Zavatski (*Swiss Federal Institute of Technology Lausanne (EPFL)*); *Olivier J. F. Martin* (*Swiss Federal Institute of Technology Lausanne (EPFL)*);

10:50 Invited A Gaussian Beam Method for Optical Field Construction along Arbitrary Curved Trajectories
Shaohui Yan (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*);

11:10 Invited Intelligent Algorithm-based Nanoscale Optical Tweezers
Xuchen Shan (*Beihang University*); *Xiaolan Zhong* (*Beihang University*); *Fan Wang* (*Beihang University*);

11:30 Optical Tweeze-sectioning Microscopy
Xing Li (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*); *Xiaohao Xu* (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*); *Baoli Yao* (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*);

00:00 Invited Photochemical Tweezing and the Photoisomerization Force
Zouheir Sekkat (*University Mohammed VI Polytechnic*);

Session 2A5a
Advanced Materials and Metamaterials for Microwave Devices and Antennas Application

Wednesday AM, July 29, 2026

Room 5 - CR 9

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*);

00:00 Inverse Design of Large Angle-stable FSS Based on C-GAN
Dou Tian (*Chang'an University*); *Jiahao Li* (*Chang'an University*); *Yuqin Qian* (*Smart Operation Branch, Ningbo Rail Transit Group Co., Ltd.*);

Session 2A5b
Intelligent Antenna Systems and Electromagnetic Sensing: Methods and Applications

Wednesday AM, July 29, 2026

Room 5 - CR 9

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*); *Yuan Zhang* (*University of Electronic Science and Technology of China*); *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 10

Organized by Wen Zhou, Xiaolong Pan

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 Invited Modulus-constrained VQVAE: A Robust Blind Neural Network Based Equalization Method for VLC Systems
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*); *Wen Zhou* (*Fudan University*); *Xiangjun Xin* (*IEIT SYSTEMS (Beijing) Co., Ltd.*);

00:00 Invited Weak-signal Deep-space Detection
Fang Wang (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*);

00:00 Invited Infrared Detection for Weak Deep-space Signals Research
Fang Wang (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*);

00:00 Invited Photonics-assisted mmWave ISAC System Using CE-LFM-OTFS Waveform
Yanyi Wang (*Xidian University*);

00:00 Research on Photonics-assisted THz ISAC with High Time-frequency Efficiency
Mingzheng Lei (*Purple Mountain Laboratories*);

00:00 Invited Low-complexity Baseband DSP Design and FPGA Real-time Verification for 6G Photonic Terahertz Communication Systems
Kaihui Wang (*Fudan University*);

00:00 Research on Fiber Optic Image Transmission System Technology Integrating Artificial Intelligence and Vortex Light
Sitong Zhou (*Beijing University of Posts and Telecommunications*);

00:00 Invited Adaptive Optics and All-optical Processing Techniques for OAM Spatial Division Multiplexing toward High-quality Transmission
Huan Chang (*Beijing Institute of Technology*);

Session 2A7a
Advances in Random Medium Scattering Theory and Remote Sensing Techniques

Wednesday AM, July 29, 2026

Room 7 - VIP R3

Organized by Shurun Tan, Yanlei Du

Chaired by Shurun Tan, Yanlei Du

8:00 Modeling and Validation of Geometry Coupling in a Ground-based Scatterometer
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*); *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*);

9:30 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*);

9:45 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*);

10:30 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*);

10:45 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 2A7b
Metalenses Design and Imaging Technology

Wednesday AM, July 29, 2026
Room 7 - VIP R3
Organized by Qun Ren, Hang Xu
Chaired by Qi Tan

11:00 Analysis of the Influence of Phase Gradient and Polarization Conversion on the Performance of Terahertz Metasurface Lenses
Kehan Yin (*Tianjin University*); *Hang Xu* (*Tianjin University*); *Jianquan Yao* (*Tianjin University*);

11:15 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*);

11:30 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*);

11:45 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*);

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

00:00 Meta-devices for Photonic and Quantum Applications
Keynote
Din Ping Tsai (*City University of Hong Kong*);

8:30 Optical Imaging Based on Metasurfaces
Invited
Shu-Ming Wang (*Nanjing University*);

00:00 Invited Direct Imprinting of Geometric Phase on Linear Polarization in Metasurfaces with Engineered Exceptional Points
Yaoguang Ma (*Zhejiang University*);

9:10 Invited Geometric Phase Metasurfaces: From Optics to Acoustics and Water Waves
Shubo Wang (*City University of Hong Kong*);

9:30 Invited Deep Learning Empowered Multidimensional Infrared Upconversion Detections
Jinhui Chen (*Xiamen University*);

9:50 Invited Quantum Metasurfaces for Advanced Photon Sources
Fei Ding (*Eastern Institute of Technology*);

10:10 Invited A Space-time Holographic Metasurface Antenna
Geng-Bo Wu (*City University of Hong Kong*);

10:30 Invited Topological Light Waves from Metamaterials
Yijie Shen (*Nanyang Technological University*);

10:50 Invited Metasurface-integrated Multi-functional Fiber Devices
Yi-Feng Xiong (*Nanjing University*); *Haotian Xu* (*Nanjing University*); *Xiangyu Ma* (*Nanjing University*); *Fei Xu* (*Nanjing University*);

00:00 Invited Broadband Nonlinear Optical Devices on Geometric Designed LNOI Chips
Chunyu Huang (*Nanjing University of Aeronautics and Astronautics*); *Yu Luo* (*Nanjing University of Aeronautics and Astronautics*); *Hui Liu* (*Nanjing University*);

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 Invited Multiphase Pentamode Materials and Underwater Acoustic Coatings with Simultaneous Wavefront-manipulating and Energy Absorption Capabilities
Aiguo Zhao (*Nanjing University of Technology*);

8:20 Invited Design and Analysis of a Combined Nonlinear-acoustic 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*);

8:40 Invited Non-Hermitian Topological States in Lossy Acoustic Materials
Jien Wu (*Changsha University of Science and Technology*);

9:00 Invited Impact Protection to Energy-autonomous Monitoring: Harnessing Auxetic Metamaterials for Self-powered Structural Sensing
Guobiao Hu (*The Hong Kong University of Science and Technology (Guangzhou)*);

00:00 Invited Underwater Acoustic-vortex Communication with Enhanced Capacity and Cryptographic Information via Hydrostatic-pressure-immune Metasurfaces
Hao-Wen Dong (*Beijing Institute of Technology*);

00:00 Invited Spatial Coding Metastructures for Single-channel Dynamics Identification
Tianxi Jiang (*University of Science and Technology of China*);

00:00 Invited Multi-functional Metamaterials through Pre-Torsion Design
Jianfei Yin (*National University of Defense Technology*); *Xuegang Zhang* (*National University of Defense Technology*);

00:00 Bypassing Dorsal Hand Veins Biometric Systems Using a Special Infrared Reflective Compound
Dobroslav Pavlovich Egorov (*Kotelnikov Institute of Radioengineering and Electronics of RAS*); *P. V. Mizinov* (*HSE University*);

00:00 Invited Extreme Damping in Metamaterials: From Theoretical Prediction to Experimental Observation
Kaijun Yi (*Beijing Institute of Technology*);

00:00 Invited Research Status and Development Trends of Underwater Acoustic Metamaterials
Bo Hu (*Harbin Engineering University*); *Jianxu Zhang* (*Harbin Engineering University*); *Jintong Gao* (*Harbin Engineering University*); *Yiyang Gongye* (*Harbin Engineering University*); *Bowen Shi* (*Harbin Engineering University*); *Honglin Qu* (*Harbin Engineering University*); *Gang Li* (*Harbin Engineering University*);

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 Invited Miniaturized Mid-infrared Spectroscopic Sensing Platform based on Metasurface Thermal Emitters
Qin Chen (*Jinan University*); *Long Wen* (*Jinan University*);

8:35 Invited Lightwave Valleytronics Based on a Meta-waveguide Optoelectronic Chip
Haoran Ren (*Monash University*);

8:55 Invited Active Control of Nonreciprocal Thermal Radiation via Hybrid Metastructures
Ye Ming Qing (*Nanjing University of Posts and Telecommunications*); *Shunsuke Murai* (*Osaka Metropolitan University*); *Koichi Okamoto* (*Osaka Metropolitan University*);

9:15 Invited Nonlocal Meta-optics: Addressing Fundamental Scaling Constraints in Imaging Systems
Yuanmu Yang (*Tsinghua University*);

9:35 Invited Controlling Reflected Polarization and Wavefront from 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*);

00:00 Keynote Two-dimensional Mid-infrared Sensor Enabling Simultaneous Perception and Encoding, and Hyperspectral Imaging
Qi Jie Wang (*Nanyang Technological University*);

00:00 High-performance Structural Color Based on Silicon Carbide Metasurface
Yongze Ren (*Nanjing University of Posts and Telecommunications*); *Yuqi Zhang* (*Nanjing University of Posts and Telecommunications*); *Li Gao* (*Nanjing University of Posts and Telecommunications*);

00:00 Invited Monolithically Integrated High-precision Infrared Polarization Detectors
Jing Zhou (*Shanghai Institute of Technical Physics, Chinese Academy of Sciences*);

00:00 Invited Wireless Body Sensor Networks Based on Metamaterial Textiles
Xi Tian (*Tsinghua University*);

00:00 Design and Simulation of a Dual Resonant C-band Metamaterial Absorber for Potential Glucose Sensing Applications
Shah Faisal (*GIK Institute of Engineering Sciences and Technology*); *Arbab Abdur Rahim* (*GIK Institute of Engineering Sciences and Technology*); *Bystrik Dolnik* (*Technical University of Kosice*);

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 Interluminal 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*); *Nataļja Muračova* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

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

8:00 Invited Topological Optical Non-reciprocity in Room-temperature Atoms
Han Cai (*Zhejiang University*);

8:20 Invited Optomechanical Sensor Network
Qiang Zhang (*Shanxi University*);

8:40 Invited Sub-picosecond Quantum Time Synchronization for Scalable Quantum Networks
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 Invited Remote Entanglement of Rydberg Atoms
Chaowei Yang (*University of Science and Technology of China*);

9:20 Invited Integrated Quantum Light Source in Thin-film Lithium 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*);

00:00 Invited Fabrication of Near-infrared Single-photon Emitters in 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 Invited Recent Progress on Quantum Interferometers
Rui-Bo Jin (*Hunan Normal University*);

00:00 Invited Optical Nonreciprocity Induced by Parametric Nonlinear Processes in PPLN Waveguide
Chen-Zhi Yuan (*Wuhan Institute of Technology*); *Shun-Ping Lu* (*Wuhan Institute of Technology*); *Rui-Bo Jin* (*Hunan Normal University*);

00:00 Invited Experimental Demonstration of an Entangled Photonic Quantum Memristor Network
Jiachao Wang (*University of Shanghai for Science and Technology*); *Tengze Yang* (*University of Shanghai for Science and Technology*); *Qiming Zhang* (*University of Shanghai for Science and Technology*); *Wei Li* (*University of Shanghai for Science and Technology*); *Min Gu* (*University of Shanghai for Science and Technology*);

00:00 Invited Wide-field Imaging of Microwaves with Spin Defects in Solids
Feifei Zhou (*China Jiliang University*);

00:00 Invited Experimental Advances in Network-based Multiparty Quantum Information Processing
Zheng-Da Li (*Shenzhen International Quantum Academy*);

Session 2A13
Quantum Sensing Methods and Applications

Wednesday AM, July 29, 2026

Room 13 - CR 17

Organized by Yong-Chun Liu, Bei Liu

8:00 Invited Quantum Imaging and Quantum Measurement
Lihong Wang (*California Institute of Technology*);

8:20 Invited High-sensitivity Operation of Unshielded Radio-frequency Atomic Magnetometers
Han Yao (*Nanjing University of Science and Technology*); *Ferruccio Renzoni* (*University College London*);

8:40 Invited Levitated Sensor for Magnetometry in Ambient Environment
Wei Ji (*Peking University*); *Changhao Xu* (*Johannes Gutenberg-Universitat Mainz*); *Guofeng Qu* (*Sichuan University*); *Dmitry Budker* (*Johannes Gutenberg-Universitat Mainz*);

9:00 Invited Diamond Magnetometry: From Instrumentation to Application
Yijin Xie (*Zhejiang University*);

9:20 Invited Receiver-level Quantum Enhancement for RF-photonic Imaging
Zheshen Zhang (*University of Michigan*);

10:30 Invited Ultra-sensitive Magnetometry Using Levitated Magnets and Targeting Axion Dark Matter Searches
Peiran Yin (*Nanjing University*);

00:00 Invited Microwave Sensing Based on Rydberg Atoms
Yuechun Jiao (*Shanxi University*);

11:10 Invited Photocatalytic Control of Shallow Diamond Color Center 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 Grimau Puigibert* (*University of Basel*); *Jodok Happacher* (*University of Basel*); *Patrick Maletinsky* (*University of Basel*);

11:30 High-sensitivity Atomic Magnetometers Based on Nonlinear Magneto-optical Rotation
Liwei Jiang (*Beihang Universtiy*); *Changhao Zhang* (*Beihang Universtiy*); *Jiali Liu* (*National Institute of Extremely-Weak Magnetic Field Infrastructure*); *Junlin Chen* (*Beihang Universtiy*); *Jiaqi Yang* (*Beihang Universtiy*); *Chi Fang* (*National Institute of Extremely-Weak Magnetic Field Infrastructure*);

Session 2A14
Terahertz Photonics 1

Wednesday AM, July 29, 2026

Room 14 - VIP R5

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

Chaired by Nikolay V. Petrov, Mikhail V. Rybin

8:00 Invited Novel Optical Materials for the THz Frequency Range and Optical Elements Based on Them
Gleb M. Katyba (*Institute of the Solid State Physics of Russian Academy of Sciences*); *A. S. Kucheryavenko* (*Institute of the Solid State Physics of Russian Academy of Sciences*); *A.-E. P. Protopopova* (*Institute of the Solid State Physics of Russian Academy of Sciences*); *I. A. Larin* (*Institute of the Solid State Physics of Russian Academy of Sciences*); *P. A. Tsabolova* (*Institute of the Solid State Physics of Russian Academy of Sciences*); *K. I. Zaytsev* (*Prokhorov General Physics Institute of RAS*); *Vladimir N. Kurlov* (*Institute of Solid State Physics of Russian Academy of Sciences*);

8:20 Invited Optical Metasurfaces for Manipulating Multispectral 3D Polarization Structures
Xianzhong Chen (*Heriot-Watt University*); *Hammad 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 Invited THz-IR Spectroscopy of Astrophysical Ice Analogues: Optical Properties, Light Scattering and Structural Features
Arseniy A. Gavdush (*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*); *Jiaguang 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*);

10:30 Invited A Tunable Tri-band Terahertz Sensor Based on Graphene Metamaterial
Maixia Fu (*Henan University of Technology*); *Xiangshuai Liang* (*Henan University of Technology*); *Mengyi Liu* (*Henan University of Technology*); *Tiantian Zhang* (*Henan University of Technology*);

10:50 Invited High-performance Metamaterial-inspired Quasi-optical Instrumentation for the Range of subTHz/THz Frequencies
Sergei Alexandrovich Kuznetsov (*Novosibirsk State University*); *Alexander V. Gelfand* (*Institute of Semiconductor Physics SB RAS*); *Pavel Alexandrovich Lazorskiy* (*Institute of Semiconductor Physics SB RAS*); *Andrey V. Arzhannikov* (*Budker Institute of Nuclear Physics RAS*); *Victor N. Fedorinin* (*Institute of Semiconductor Physics SB RAS*); *Alexander N. Gentselev* (*Budker Institute of Nuclear Physics SB RAS*); *Nazar A. Nikolaev* (*Novosibirsk State University*); *Valeri I. Lapanik* (*A. N. Sevchenko Institute of Applied Physical Problems*);

11:10 Invited Multifunctional Coding Metasurface for Terahertz Wave Manipulation
Jinhui Shi (*Harbin Engineering University*); *Xiaohan Jiang* (*Harbin Engineering University*); *Wanying Liu* (*Harbin Engineering University*); *Chunying Guan* (*Harbin Engineering University*);

11:30 Invited Terahertz Spectroscopy of Nonlinear Crystals and the Potential of Their Application as New Radiation Sources
Nazar A. Nikolaev (*Novosibirsk State University*);

00:00 Invited Tunable Mode Coupling in Metasurface for Spectral Modulation and Terahertz Metagrating
Yuancheng Fan (*Northwestern Polytechnical University*); *Yali Zeng* (*Northwestern Polytechnical University*); *Fuli Zhang* (*Northwestern Polytechnical University*);

Session 2A15
Advanced Optical and Digital Signal Processing in Optical Communication Networks 1

Wednesday AM, July 29, 2026

Room 15 - CR 18

Organized by Feng Wen, Mingming Tan, Tianhua Xu

Chaired by Feng Wen

8:00 Investigation of the Impairments and Characteristics for
Invited High-speed Coherent Optical Communications with the Digital-to-analog Converters Using Analog Multiplexing
Man Zhao (*Tongji University*); *Junhe Zhou* (*Tongji University*);

8:20 High-precision Inversion and Physical Simulation of Dy-
Invited namic Fiber Perturbation Parameters Based on SOP Evolution Trajectories
Zhongyu Shi (*Tongji University*); *Tengyuan Liu* (*Tongji University*); *Junhe Zhou* (*Tongji University*);

8:40 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*);

9:00 Tbit/s Random Bit Generation with Massively Parallel
Invited Chaos
Lu Zhang (*Zhejiang University*); *Qiuzhuo Deng* (*Zhejiang University*);

9:20 Enhanced Capacity and Turbulence Resiliency in Mode
Invited Division Multiplexing Free-space Optical Communications
Yiming Li (*Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences*); *Zhaozhong Chen* (*University of Glasgow*); *Gil M. Fernandes* (*University of Aveiro*); *David M. Benton* (*Aston University*); *Antonin Billaud* (*Cailabs*); *Martin P. J. Lavery* (*University of Glasgow*); *Andrew D. Ellis* (*Aston University*);

9:40 Broadband Integrated Waveguide Optical Parametric
Invited Amplification and Its Applications in Optical Communications
Ping Zhao (*Sichuan University*);

10:30 Optical Integrated Communication, Sensing, and Power
Invited Transfer for 6G
Chen Chen (*Chongqing University*);

10:50 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*);

11:05 Multidimensional-division-multiplexing Based Optical
Invited Transmission
Jianping Li (*Guangdong University of Technology*);

11:25 Toward Integrated Sensing and Communications in All-
Invited optical Fiber and Wireless Networks
Zhouyi Hu (*Beijing Jiaotong University*);

00:00 Ultra-high-speed Inter-satellite and Satellite-ground Op-
Invited tical Interconnection
Xueshun Wang (*Fiberhome Telecommunication Technologies Co., Ltd.*); *Jun Xiong* (*Fiberhome Telecommunication Technologies Co., Ltd.*);

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

Wednesday AM, July 29, 2026

Room 16 - CR 19

Organized by Feng Li, Xiaoqing Zhou

Chaired by Feng Li

8:00 Optimization of Luminescence in Strongly Coupled Plasmon-exciton Hybrids
Li Zhou (*Wuhan University*);

8:15 Optical Field Control of Meta-atoms with Magneto-electric Coupling
Wenjia Li (*Harbin Engineering University*);

8:30 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)*);

8:45 Band Engineering in Polaritonic Metasurfaces Using a Multimode Framework
Polina A. Pantiukhina (*Australian National University*); *D. Smirnova* (*Australian National University*); *K. Koshelev* (*Australian National University*);

9:00 From Rotation to Dissipation: Stabilizing Localized and Vortex Waves in Cubic Nonlinear Media
Chunyan Li (*Xidian University*);

9:15 Optimizing the Quality Factor of a Dielectric Spherical Particle
Vladimir Dmitrievich Igoshin (*ITMO University*); *Mihail I. Petrov* (*ITMO University*);

9:30 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*);

9:45 Invited Room-temperature Optical Spin Hall Effect in Transition Metal Dichalcogenide Polaritonic Waveguides
Qiuyu Shang (*Université Côte d'Azûr, Sorbonne Université*); *Mingyang Zhang* (*Université Côte d'Azûr, 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 Gromovyii* (*Université Côte d'Azûr*); *Sebastien Chenot* (*Université Côte d'Azûr, CNRS, CRHEA*); *Blandine Alloing* (*Université Côte d'Azûr, CNRS, CRHEA*); *A. Rasmita* (*Nanyang Technological University*); *Guillaume Malpuech* (*Universite Clermont-Auvergne, CNRS*); *Timothy T. C. H. Liew* (*Nanyang Technological University*); *Dmitry Solnyshkov* (*Universite Clermont-Auvergne, CNRS*); *Weibo Gao* (*Nanyang Technological University*); *Jesus Zuniga-Perez* (*CNRS*);

10:30 Polaritonic Spectra of Optical Mie Voids
Denis G. Baranov (*Moscow Institute of Physics and Technology*);

10:45 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*);

11:00 Invited Bound State in the Continuum and Soliton Formation in GaN Waveguides
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'Azûr, CNRS, CRHEA*); *H. Souissi* (*Université Paris-Saclay*); *E. Cambril* (*Université Paris-Saclay*); *S. Bouchoule* (*Université Paris Saclay*); *Jesus Zuniga-Perez* (*CNRS*); *Dmitry Solnyshkov* (*Universite Clermont-Auvergne, CNRS*); *Guillaume Malpuech* (*Universite Clermont-Auvergne, CNRS*); *T. Guillet* (*Université de Montpellier*);

11:20 Exciton-polaritons in All-TMDC $SnS_2/WS_2/SnS_2$ 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*);

11:35 Collective Effects in Periodic and Aperiodic Plexcitonic Crystals
Andrea Toma (*Istituto Italiano di Tecnologia*);

11:50 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 20

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

Chaired by Yuri Kivshar, Maxim V. Gorkunov

8:00 Invited Spin-Momentum-Locked Chiral Emission from Nonlocal Metasurfaces
Shaojun Wang (*Soochow University*);

8:20 Invited Metalasers with Arbitrary Wave Front
Qinghai Song (*Harbin Institute of Technology*);

8:40 Invited Terahertz Metasurface by Laser-induced Graphene and Its Chiral Applications
Bin Hu (*Beijing Institute of Technology*); *Xudong Wu* (*Beijing Institute of Technology*); *Haoyang Li* (*Beijing Institute of Technology*); *Bowen Deng* (*Beijing Institute of Technology*); *Zongyuan Wang* (*Beijing Institute of Technology*);

9:00 Opening the Polarization Channel in Nonlinear Chiroptical Scattering
Invited
Ventsislav K. Valev (*University of Bath*);

9:20 Tunable Geometric-phase Metasurface for Active Beam Switching in Tamm Plasmon-polariton Structures
Invited
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*);

9:40 Mueller-matrix Polarimetry as a Universal Tool for Chiral Light-matter Interactions
Invited
Minghao Li (*University of Basel*);

10:30 Flexible Metasurface Stickers with Nonlocal Coupling
Invited
Shunsuke Murai (*Osaka Metropolitan University*); *J. He* (*Kyoto University*); *T. Y. Lo* (*Kyoto University*); *J. TY. Tse* (*Kyoto University*); *K. Tanaka* (*Kyoto University*); *K. Okamoto* (*Osaka Metropolitan University*);

10:50 Chiral Plasmonic Materials with Strong and Dynamically Programmable Chiroptical Responses
Invited
Chunhong Ye (*ShanghaiTech University*);

11:10 Recent Advances in Chiral Nonlinear Metaphotonics
Keynote
Yuri Kivshar (*Australian National University*);

11:40 Chiral Collective Oscillations in Photonic Crystal Slab
Invited
Nianyuan Lv (*Peking University*); *Ye Chen* (*Peking University*); *Zixuan Zhang* (*Peking University*); *Chao Peng* (*Peking University*);

12:00 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*);

12:20 Metasurface-induced Chiroptical Raman Scattering from Achiral Molecules
Invited
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 2A18
Recent Developments of Diffractive Optical Sensors Using Machine Learning 2

Wednesday AM, July 29, 2026

Room 18 - VIP R8

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 (*Shanghai Jiao Tong 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 Structured Radiation Generated with Metaphotonics
Invited
Yuri Kivshar (*Australian National University*);

9:55 Learned Phase Control in Digital Lasers for Reconfigurable Structured Light Generation Using Machine-learning
Shu-Chun Chu (*National Cheng Kung University*); *Yu-Che Wu* (*National Cheng Kung University*);

10:30 Decomposition of Optical Vorices under Tight Focusing Conditions
Invited
Sergey S. Stafeev (*NRC "Kurchatov Institute"*); *Victor V. Kotlyar* (*NRC "Kurchatov Institute"*);

10:50 Combining High-resolution Silicon Nanofabrication with Inverse Design for High-performance Silicon Nanophotonics
Invited
Soren Stobbe (*Technical University of Denmark*);

11:10 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*);

11:25 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*);

11:40 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 Invited Frequency-detuned Exceptional Surface Mediated by a 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 Keynote Chirality and Nonlinearity in Complex Nanophotonic 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 Invited Non-Hermitian Thermal Coupling Sensor
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)*);

10:30 Invited Higher-order Skin Effects and Defect Topology in Non-Hermitian Electrical Circuits
Shuo Liu (*Southeast University*); *Shaojie Ma* (*Fudan University*); *Ce Shang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Tie Jun Cui* (*Southeast University*);

10:50 Invited Non-Hermitian Valley Filter from Uniform Loss
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*); *Haoran Xue* (*The Chinese University of Hong Kong*);

11:10 Invited Temporal Coupled Mode Theory for Isolated Resonances 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 Invited Symmetry-protected Control of Liouvillian Topological 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*);

Session 2A20
Special Session of Metamaterials in Honor of Sir John Pendry

Wednesday AM, July 29, 2026

Room 20 - CR 28

Organized by Yu Luo, Hongsheng Chen

Session 2A21
Flexible Photonics: Exploring Applications and Future Potential of Optical Technologies on Compliant Platforms 2

Wednesday AM, July 29, 2026

Room 21 - CR 29

Organized by Lan Li, Lei Zhang, Tian Gu

Chaired by Lan Li

00:00 Heterogeneous Integrated Flexible Optical Modulators
Invited
Junjia Wang (*Southeast University*);

00:00 Microcomb Driven Parallel Optical Computing
Invited
Peng Xie (*Shanghai Institute of Optics and Fine Mechanics*);

8:40 Broadband Optical Power Coupling with Multimode
Invited Operation for MDM Systems
Xi-Bin Wang (*Jilin University*); *Shangrong Li* (*Jilin University*); *Yushu Fu* (*Jilin University*); *Shijie Sun* (*Jilin University*); *Daming Zhang* (*Jilin University*);

9:00 Compact Plasmonic Waveguide-integrated Optoelectronic Device
Jialing Jian (*Jiangnan University*); *Jianghong Wu* (*Weslake University*); *Yuting Ye* (*Westlake University*); *Qingyan Deng* (*Westlake University*); *Lan Li* (*Westlake University*);

9:15 Mechanoluminescent Optical Fibers: Enabling Self-
Invited powered, Distributed, and Vision-based Sensing for Adaptive Opto-Mechanical Platforms
Jiulin Gan (*South China University of Technology*);

9:35 Chalcogenide Glasses for Advanced Optoelectronic Ap-
Invited plications
Changgui Lin (*Ningbo University*); *Shiliang Kang* (*Ningbo University*); *Chengwe Gao* (*Ningbo University*); *Linling Tan* (*Ningbo University*); *Yanqing Fu* (*Ningbo University*); *Jinjin Chen* (*Ningbo University*); *Shixun Dai* (*Ningbo University*);

00:00 Smartphone-integrated Flexible Optical Fiber Sensor
Invited Platform for Healthcare Monitoring Applications
Rui Min (*Beijing Normal University*);

00:00 Intelligent Fiber Devices and Equipment
Invited
Pan Li (*Central China Normal University*);

11:10 Flexible Magnetically Actuated Fiberbot for Minimally
Invited Invasive Therapeutic Interventions
Jingjing Guo (*Beihang University*);

11:30 Strain-mediated Self-morphing Multimaterial Polymer
Invited Optical Fibers for Wearable Sensing
Kaiwei Li (*Jilin University*);

11:50 Insect-inspired Micro-optical Antenna Enables Ultrasensitive Multisensory Perception
Xitao Tu (*Zhejiang University*); *Chen Qian* (*Zhejiang University*); *Tao Feng* (*Zhejiang University*); *Yuqi Zhen* (*Zhejiang University*); *Bowen Cui* (*Zhejiang University*); *Tiefeng Li* (*Zhejiang University*); *Limin Tong* (*Zhejiang University*); *Lei Zhang* (*Zhejiang University*);

Session 2A22
Poster Session 4

Wednesday AM, July 29, 2026

9:00 AM - 12:00 AM

Poster Area

00:00 Phase Synchronization of Non-cooperative Bistatic Radar Based on FPGA
Long Chen (*National University of Defense Technology*); *Xuesong Wang* (*National University of Defense Technology*); *Jiameng Pan* (*National University of Defense Technology*); *Qinglong Bao* (*National University of Defense Technology*);

00:00 Research and Design of Multi-band Antenna Based on Regulation of Glass Dielectric Layer
Jiayi Chen (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Yuan Zhang* (*Robot Technology Used for Special Environment Key Laboratory of Sichuan Province*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 Design of a Triple-frequency Megawatt-class Gyrotron Based on Interaction Length Optimization
Xinyin Cao (*Peking University*); *Yu-Heng Qian* (*Peking University*); *Feng Zhang* (*Peking University*); *Jia-Ji Feng* (*Peking University*); *Chao-Hai Du* (*Peking University*);

00:00 Polarization-insensitive Edge Coupler on a 500 nm SOI Platform
Kaixiang Zhang (*University of Shanghai for Science and Technology*); *Muhammad Shemyal Nisar* (*University of Shanghai for Science and Technology (USST)*);

00:00 Calculation and Analysis of Bistatic Scattering Characteristics of Chaff Clouds Based on Method of Moments
Yue Li (*Xidian University*); *Jiahao Xu* (*Xidian University*); *Yanchun Zuo* (*Xidian University*); *Yujie He* (*Xidian University*); *Jifa Li* (*Xidian University*); *Lixin Guo* (*Xidian University*); *Wei Liu* (*Xidian University*);

00:00 A Stokes Reception Approach for Underwater Visible Light Communication
Yuhan Hu (*Fudan University*); *Zhe Feng* (*Fudan University*); *Zhiwu Chen* (*Fudan University*); *Zhilan Lu* (*Fudan University*); *Yunkai Wang* (*Fudan University*); *Ruize Jin* (*Fudan University*); *Zengyi Xu* (*Fudan University*); *Nan Chi* (*Fudan University*);

00:00 Surface Defects Detection of CFRP Based on a Novel Waveguide Probe Loaded with Split Ring Resonators in Millimeter-wave Frequency
Jiatong Zhou (*Xi'an University of Technology*); *Chenbo Zheng* (*Xi'an University of Technology*); *Wei Quan* (*Xi'an University of Technology*);

00:00 Design of a Low-loss Coaxial-GCPW-microstrip Transition Structure for the Millimeter-wave Band
Hangjiang Xiao (*Southwest University of Science and Technology*); *Zuxue Xia* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Ji Li* (*Southwest University of Science and Technology*);

00:00 Hierarchical Direction of Arrival Estimation Algorithm for Millimeter-wave Radar
De Liang Cao (*Tongji University*); *Feng Yu Liu* (*Tongji University*); *Yi Fan Guo* (*Tongji University*); *Guo Chun Wan* (*Tongji University*);

00:00 Monolithic Gold-decorated Indium Gallium Oxide for Solar-driven Photocatalytic Applications
Riccardo Trevia (*University of Genova*); *Andrea Lanfranchi* (*University of Genova*); *Davide Pratolongo* (*University of Genova*); *Davide Comoretto* (*University of Genova*); *Giovanni Manfredi* (*Micamo Lab*); *Paola Lova* (*University of Genova*);

00:00 Research on Beam-wave Energy Exchange in the Triple-gap Injection Cavity of a Broadband Klystron Amplifier
Yuli Wang (*Tsinghua University*); *Ping Wu* (*Northwest Institute of Nuclear Technology*); *Jun Sun* (*Northwest Institute of Nuclear Technology*); *Yibing Cao* (*Northwest Institute of Nuclear Technology*); *Xianchen Bai* (*Northwest Institute of Nuclear Technology*); *Ruidong Hou* (*Northwest Institute of Nuclear Technology*);

00:00 Development of a Deep Learning-based Fast Radiative Transfer Model in Mid-infrared and Thermal Infrared Channels
Boyu Huang (*Fudan University*); *Gengming Jiang* (*Fudan University*);

00:00 A Fast Characterization Method for Target Dynamic Electromagnetic Characteristics Based on 3D Scattered Point Interpolation
Zeng Yang (*National Key Laboratory of Scattering and Radiation*); *Tian-Xu Yan* (*Shanghai Institute of Mechanical and Electrical Engineering*); *Ming Feng* (*National Key Laboratory of Scattering and Radiation*); *Xiaolin Mi* (*National Key Laboratory of Scattering and Radiation*); *Zhi-Yong Huang* (*National Key Laboratory of Scattering and Radiation*); *Zhijie Xie* (*National Key Laboratory of Scattering and Radiation*);

00:00 Simulation of DC-DC Power Circuit EMS in High-field-strength Electromagnetic Environments
Jia-Hao Wang (*Southwest University of Science and Technology*); *Chunying Zhao* (*Chengdu Tianao Technology Development Co., Ltd*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Cheng Liu* (*Southwest University of Science and Technology*); *Yuan Zhang* (*Robot Technology Used for Special Environment Key Laboratory of Sichuan Province*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Bo Pu* (*DeTooLIC Technology Co., Ltd.*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 Temperature Effect on Periodic Stub-based Crosstalk Suppression in High-speed Circuits
Yujie Song (*Southwest University of Science and Technology*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Zhongkun Feng* (*Southwest University of Science and Technology*); *Bin Xie* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Tao Bai* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 Improvement on the Measurement Method for Surface Traveling Wave Attenuation Ratio of RAM
Jingxuan Yang (*National Key Laboratory of Scattering and Radiation*); *Xingyun Zhang* (*National Key Laboratory of Scattering and Radiation*); *Xilong Li* (*National Key Laboratory of Scattering and Radiation*); *Fang Liu* (*National Key Laboratory of Scattering and Radiation*); *Zongtao Zhang* (*National Key Laboratory of Scattering and Radiation*);

00:00 High Absorption by Good Conductors under Grazing Incidence
Guangfu Chen (*Soochow University*); *Yuxuan Liu* (*Soochow University*); *Jie Luo* (*Soochow University*);

00:00 All-optical Nonlinear Activation Functions Based on Optical Metasurfaces
Shiyang Cao (*Beijing University of Posts and Telecommunications*); *Hailun Xie* (*Beijing University of Posts and Telecommunications*); *Lili Gui* (*Beijing University of Posts and Telecommunications*); *Kun Xu* (*Beijing University of Posts and Telecommunications*);

00:00 Tamm Plasmon Polariton Based Tunable Hot-electron Photodetector
Yuri V. Konov (*Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science*); *Dmitrii A. Pykhtin* (*Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science*); *Rashid Gelmedinovich Bikbaev* (*Kirensky Institute of Physics, Federal Research Center-Krasnoyarsk Scientific Center, Siberian Branch Russian Academy of Science*); *Ivan Vladimirovich Timofeev* (*Kirensky Institute of Physics, Federal Research Center KSC SB RAS*);

00:00 Helicity Sensitive Terahertz Detection in Monolayer 1T'-WTe_2
Ting Wang (*Nano Science and Technology Institute of University of Science and Technology of China*); *Xuechao Yu* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*);

00:00 Fluid-assisted Tunable Metasurface Metalens for Adaptive Optical Wireless Communication
Noreen Raheem (*Information Technology University of the Punjab (ITU)*); *Nasir Mahmood* (*Suzhou City University*);

00:00 Excitation of Unidirectionally Coupled and Unidirectionally Guided Resonant Modes in Microcavity with Dye-doped Cholesteric
Mikhail Nikolaevich Krakhalev (*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*);

00:00 Toward a Holistic Monitoring Framework for Forest Drainage Systems Using LiDAR and Distributed Photonic Sensing
Mairis Stempers (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Oskars Ozoliņš* (*Riga Technical University, Latvian Academy of Sciences*);

00:00 Development and Characterization of a Fiber-based Ring Resonator for Telecommunication Networks
Dilan Enrique Ortiz Blanco (*Riga Technical University*); *Janis Alnis* (*University of Latvia*); *Janis Braunfelds* (*Riga Technical University*); *Inga Brice* (*University of Latvia*); *Sintija Berzina* (*Riga Technical University (RTU)*); *Ints Murans* (*Riga Technical University*); *Ricards Kudojars* (*Riga Technical University*); *Aleksandrs Ipatovs* (*Riga Technical University*); *Jurgis Porins* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Toms Salgals* (*Riga Technical University*);

00:00 Electro-optically Co-modulated β-Ga_2O_3 Floating-gate Transistors for Neuromorphic Computing
Tiwei Chen (*University of Science and Technology of China*); *Chunhong Zeng* (*University of Science and Technology of China*); *Yu Hu* (*University of Science and Technology of China*); *Xiaodong Zhang* (*University of Science and Technology of China*); *Baoshun Zhang* (*University of Science and Technology of China*);

00:00 Synergistic Mixed-cation and Microcavity Engineering for Low-threshold Lasing in Quasi-2D Perovskites
Xiangmei Ning (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xiaoyang Guo* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Ying Lv* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Tienan Wang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Li Song* (*Hebei University of Technology*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

00:00 A Full-metal W-band Antenna with Micro-coaxial Feeding Based on Semiconductor Process
Jingjian Huang (*National University of Defense Technology*); *Qingzhan Shi* (*National University of Defense Technology*); *Xiao-Fa Zhang* (*National University of Defense Technology*); *Xi Chen* (*National University of Defense Technology*);

00:00 Design and Characterization of Aperture-coupled SR Array Antenna with Enhanced Radiation Characteristics
Yamato Tan (*University of Pakuan*); *Budi Syihabuddin* (*Telkom University*); *Muhammad Farhan Maulana* (*Telkom University*); *Mochamad Yunus* (*University of Pakuan*); *Evyta Wismiana* (*University of Pakuan*); *Agustini Rodiah Mahdi* (*University of Pakuan*); *Mohammad Ridwan Effendi* (*Institut Teknologi Bandung*); *Achmad Munir* (*Institut Teknologi Bandung*);

00:00 A Wideband Millimeter-wave Magnetoelectric Dipole Antenna for 5G Applications
Sheng Zeng (*Shanghai Jiao Tong University*); *Chao Wang* (*East China Normal University*); *Bin Yuan* (*Shanghai Jiao Tong University*);

00:00 Design of a 1-2 GHz Broadband Double-ridge Waveguide Horn Antenna Array with Beam Symmetrization and Beamwidth Broadening
Weida Bai (*Northwest Institute of Nuclear Technology*); *Guodong Gao* (*Northwest Institute of Nuclear Technology*); *Zili Jiang* (*Northwest Institute of Nuclear Technology*); *Pin Lu* (*Northwest Institute of Nuclear Technology*); *Tao Jiang* (*Northwest Institute of Nuclear Technology*);

00:00 Optimization and Performance Analysis of Microwave Pulse Compression Technology Based on Unilateral Overmoded Waveguides
Dengpan Chang (*Aerospace Information Research Institute,Chinese Academy of Sciences*); *Dongping Gao* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Quanju Shi* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Jiawei Wang* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Jie Peng* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Jinhong Jiang* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*);

00:00 Mechanisms for Tuning Microwave Dielectric Properties in $CaWO_4$-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*);

00:00 A Digitally Assisted 94.6–105.2 GHz CMOS Power Amplifier with 8-way Coherent Combining and Adaptive Bias Control
Xiuqiong Li (*Guangzhou University*); *Yisi Yang* (*Guangzhou University*); *Xinran Huang* (*Guangzhou University*); *Qinpeng Xu* (*Guangzhou University*); *Jiahao Ke* (*Guangzhou University*); *Jiaxin Chen* (*Guangzhou University*);

00:00 Development of an Electron Gun with High Compression of an Elliptic Electron Beam for a Sub-THz Travelling-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. Navrotskiy* (*Fundamental Research Laboratory, RPE "Almaz"*); *Dmitry A. Bessonov* (*Kotelnikov Institute of Radioengineering and Electronics RAS*); *Anna A. Akst* (*Saratov State University*); *Alena A. Rostuntsova* (*Institute of Radio Engineering and Electronics RAS*);

00:00 Instantaneous Turn-on Gyrotron with a Field Emitter and a Pulsed Magnetic System
E. Taradaev (*Peter the Great St. Petersburg Polytechnic University*); *G. Sominskii* (*Peter the Great St. Petersburg Polytechnic University*); *S. Taradaev* (*Peter the Great St. Petersburg Polytechnic University*); *Andrey S. Zuev* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Anton S. Sedov* (*Federal State Budgetary Scientific Institution "Federal Research Center The Institute of Applied Physics of the Russian Academy of Sciences"*); *Mikhail Yu. Glyavin* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*);

00:00 Radar Detection and Multi-target Recognition with LFM-MTD for UAVs
Guo-Yue Zhou (*Southwest University of Science and Technology*); *Jiasheng Chen* (*Southwest University of Science and Technology*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Hong-Yu Liu* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Mianyang Product Quality Supervision and Inspection Institute*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*);

00:00 Research on Localized States and Their Stability near Metasurfaces with High-order Nonlinear Interactions
Xin Wang (*Air Force Engineering University*); *Zhihui Zhang* (*Air Force Engineering University*); *Xiao-Ting Mao* (*Air Force Engineering University*);

00:00 Phase Error Correction Method for Tomographic SAR Based on DS-InSAR
Teng-Yu Liang (*National University of Defense Technology*); *Dong Feng* (*National University of Defense Technology*); *Fengzhuo Huang* (*National University of Defense Technology*); *Chongyi Fan* (*National University of Defense Technology*); *Xiaotao Huang* (*National University of Defense Technology*);

00:00 Machine Learning-enhanced Classification of High-energy Electromagnetic Transients in Astrophysical Observations
Peng Zhang (*Tongji University*); *Renzhou Gui* (*Tongji University*); *Shao-Lin Xiong* (*Institute of High Energy Physics, Chinese Academy of Sciences*);

00:00 An Optimal Noise Signal Generation Method for Convolution Modulation
Qingzhan Shi (*National University of Defense Technology*); *Zihao Zheng* (*National University of Defense Technology*); *Jingjian Huang* (*National University of Defense Technology*); *Xiaofa Zhang* (*National University of Defense Technology*);

00:00 The Performance of Terahertz Ice Cloud Airborne Radiometer
Wanting Meng (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Xiyuan Fan* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Xi Ye* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Hongxin Xu* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Kesong Dong* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Xue Li* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Jiakai He* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*);

00:00 Limitations of Direct Sampling Method with Nonzero Constant Substitution for Missing Data
Youngho Woo (*National Institute for Mathematical Sciences*); *Won-Kwang Park* (*Kookmin University*);

00:00 State-of-charge Estimation for $LiFePO_4$ 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*);

00:00 A Robust Sensorless PMSM Drive Using Strong-tracking EKF and Linear Active Disturbance Rejection Speed Control
Hui Zhao (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jiayu Li* (*Southwest University of Science and Technology*); *Changjie Huang* (*Southwest University of Science and Technology*); *Huanfa Yi* (*Southwest University of Science and Technology*); *Yangli Liu* (*Southwest University of Science and Technology*); *Li Wu* (*Southwest University of Science and Technology*);

00:00 Temperature-compensated SOC Estimation of Lithium-Ion Batteries Based on a Second-order RC Model and EKF
Liang Luo (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Qifeng Wu* (*Southwest University of Science and Technology*);

00:00 Design of an Orbital Mobile Nest System for UAVs with Acoustic-based Wireless Charging
Qi Liu (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Lei Zhao* (*Southwest University of Science and Technology*); *Guozheng Zhang* (*Southwest University of Science and Technology*); *Chengcheng Wen* (*Southwest University of Science and Technology*); *Hao Yang* (*Southwest University of Science and Technology*);

00:00 A Superjunction IGBT with PMOS Assistance and Adaptive Hole Path
Yuchi Qin (*Southwest Jiaotong University*); *Quanyuan Feng* (*Southwest Jiaotong University*); *Yixuanzhe Zhou* (*Southwest Jiaotong University*);

00:00 A Novel Design for Testability of I/O Ports in Antifuse FPGAs
Zhenji Cao (*Tongji University*); *Mei Song Tong* (*Tongji University*); *Zhong Yan Xu* (*The 58th Institute of China Electronics Technology Group Corporation*); *Gui Lin Zhao* (*The 58th Institute of China Electronics Technology Group Corporation*);

00:00 Lightweight Hybrid CNN-Mamba Network for Initial Pressure Reconstruction of Tissue in Microwave Thermoacoustic Imaging
Fei Tang (*Southwest University of Science and Technology*); *Shuangli Liu* (*Southwest University of Science and Technology*); *Xing Shang* (*Southwest University of Science and Technology*);

00:00 A 7.9-GHz 0.18-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*);

00:00 Prediction of Radar Sea Clutter Based on PatchTST Network
Chenyi Cai (*Beijing Institute of Technology*); *Changhao Liu* (*Beijing Institute of Technology*); *Yan Wang* (*Beijing Institute of Technology*);

00:00 Research and Design of Frequency Reconfigurable Antenna Based on Electrically Controlled Tuning of Liquid Crystal Dielectric Layer
Jiayi Chen (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Yuan Zhang* (*Robot Technology Used for Special Environment Key Laboratory of Sichuan Province*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 Design of a Photonic Crystal Cavity for 1 THz Gyrotrons
Yu-Heng Qian (*Peking University*); *Xinyin Cao* (*Peking University*); *Feng Zhang* (*Peking University*); *Jia-Ji Feng* (*Peking University*); *Chao-Hai Du* (*Peking University*);

00:00 Polarization Insensitive Waveguide Crossing Using 500 nm SOI
Muhammad Shemyal Nisar (*University of Shanghai for Science and Technology (USST)*); *Naeem Ullah* (*Zhejiang University*); *Ata Ur Rahman Khalid* (*Queen's University Belfast*);

00:00 Multipath and Doppler Shift Modeling Method Based on Ray Tracing
Shengzun Wang (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Kaizhen Lv* (*Southwest University of Science and Technology*); *Zhen-Yong Du* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yixiang Li* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 IC with Nano Scale Circuits for Imprinting of Silicon Wafer
Diyar Bajalan (*Technische Universität Wien*);

00:00 A Novel Quasi-Yagi Filtering Antenna with Multi-mode Bandpass Filter
Yiheng Chen (*Northwestern Polytechnical University*); *Bokai Weng* (*Northwestern Polytechnical University*); *Xueyang Fang* (*Northwestern Polytechnical University*); *Yunxi Tao* (*Northwestern Polytechnical University*); *Yihao Xia* (*Northwestern Polytechnical University*); *Xilong Lu* (*Northwestern Polytechnical University*);

00:00 The Design of a Four-channel Ka-band T/R Module for Phased Array System
Bokai Weng (*Northwestern Polytechnical University*); *Yiheng Chen* (*Northwestern Polytechnical University*); *Zhenpeng Li* (*Northwestern Polytechnical University*); *Xueyang Fang* (*Northwestern Polytechnical University*); *Xilong Lu* (*Northwestern Polytechnical University*);

00:00 A Multi-channel Thermocouple Data Acquisition and Monitoring System for Industrial Applications
Ya Ming Xie (*Tongji University*); *Yi Hao Chen* (*Tongji University*); *Yi Fan Guo* (*Tongji University*); *Guo Chun Wan* (*Tongji University*);

00:00 3D Forward Modeling and Interpretation of Blended-source Transient Electromagnetics
Jiawen Ma (*Chang'an University*); *Zhipeng Qi* (*Chang'an University*); *Junshuo Xing* (*Chang'an University*);

00:00 An Electromagnetic Spectrum Map Construction Method Based on Propagation Feature Inversion and Residual Correction
Zhonghao Huang (*Hainan University*); *Zhenjia Chen* (*Hainan University*); *Sineng Lin* (*Hainan University*); *Hongpeng Chen* (*Hainan University*);

00:00 Design of a Decentralized Pulsating Array Digital Beamforming for Radar Applications
Liu Yang (*Nanjing Marine Radar Institute*);

00:00 EMI Shielding Effectiveness Evaluation of Twisted-pair Multi-core Cables
Cheng Liu (*Southwest University of Science and Technology*); *Chunying Zhao* (*Chengdu Tianao Technology Development Co., Ltd*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Jia-Hao Wang* (*Southwest University of Science and Technology*); *Jun Zhou* (*Sichuan Shuzhi Sensor Inspection and Testing Co., Ltd*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 A Broadband Planar Meander-line EBG Structure for Suppressing Simultaneous Switching Noise
Hong-Yu Liu (*Southwest University of Science and Technology*); *Jiasheng Chen* (*Southwest University of Science and Technology*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Guo-Yue Zhou* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*);

00:00 Training-sequence-aided Pilot-branch-free Phase Recovery for Gaussian-modulated Local-Local-Oscillator Continuous-Variable Quantum Key Distribution
Xin Jin (*Institute of Southwestern Communication*); *Yang Li* (*Institute of Southwestern Communication*); *Yan Pan* (*Institute of Southwestern Communication*); *Jinlu Liu* (*Institute of Southwestern Communication*); *Wei Huang* (*Institute of Southwestern Communication*); *Bingjie Xu* (*Institute of Southwestern Communication*);

00:00 CoMetaX: 4-in-1 Co-focal Multi-band Metasystem
Qian Jin (*Soochow University*); *Azhar Javed Satti* (*Information Technology University of the Punjab*); *Isma Javed* (*Information Technology University of the Punjab*); *Hanjun Cho* (*Sungkyunkwan University*); *Muhammad Zubair* (*University of Leicester*); *Muhammad Qasim Mehmood* (*Information Technology University (ITU)*); *Lei Gao* (*Suzhou City University*); *Inki Kim* (*Sungkyunkwan University (SKKU)*); *Dongliang Gao* (*Soochow University*);

00:00 Numerical-aperture Optimization for a Two-stage Metasurface Micro-area Imaging and Spectral Measurement Path
Wei Bin Qiu (*China Jiliang University*); *H. X. Liao* (*China Jiliang University*); *Z. L. Chen* (*China Jiliang University*); *Chunlian Zhan* (*China Jiliang University*); *Han Gao* (*China Jiliang University*);

00:00 Multi-layer Phase-screen SSFM Modeling of Laser Phase Jitter in Plasma Sheaths with Random Electron-density Fluctuations
Ying Zhang (*Xi'an University of Technology*); *Junbo Hou* (*Xi'an University of Technology*); *Mingjun Wang* (*Xi'an University of Technology*);

00:00 High-performance Quantum Frequency Conversion from Ultraviolet to Telecom Band
Yi Yang (*University of Science and Technology of China*); *Bin Wang* (*University of Science and Technology of China*); *Ji-Chao Lin* (*University of Science and Technology of China*); *Yang Gao* (*University of Science and Technology of China*); *Xin Li* (*University of Science and Technology of China*); *Jiu-Peng Chen* (*University of Science and Technology of China*); *Lei Hou* (*University of Science and Technology of China*); *Xiuping Xie* (*University of Science and Technology of China*); *Ming-Yang Zheng* (*University of Science and Technology of China*); *Qiang Zhang* (*University of Science and Technology of China*);

00:00 Investigation of Helicity Density in a Tightly Focused Hybrid Polarized Beams
Vladislav Dmitrievich Zaitsev (*Samara National Research University*); *Sergey S. Stafeev* (*NRC "Kurchatov Institute"*); *Elena Sergeevna Kozlova* (*Samara National Research University & NRC "Kurchatov Institute"*); *Victor V. Kotlyar* (*NRC "Kurchatov Institute"*);

00:00 Dual-wavelength Solar-blind Photodetectors Based on β-Ga_2O_3/GeO_2 Heterostructures
Ziyu Li (*Ningbo University*); *Dongdong Meng* (*Beijing MIG Semiconductor Co., Ltd.*); *Zhengwei Chen* (*Beijing University of Posts and Telecommunications*); *Xu Wang* (*Ningbo University*);

00:00 Research on Improvement of Temperature Control System for Monitoring Device Based on Intelligent Fuzzy Control Algorithm
Bihong Zhan (*China Ship Development and Design Center*);

00:00 Investigation of Two-stage Degradation Kinetics in GaN-based Laser Diodes
Haoyu Gao (*Tongji University*); *Yu He* (*Tongji University*); *Tianqian Li* (*Tongji University*); *Yongchen Miao* (*Tongji University*); *Jingxian Liang* (*Tongji University*); *Bochen Wu* (*Tongji University*); *Pengyan Wen* (*Tongji University*);

00:00 Machine-learning-guided Design of Si-based Schottky Photodiodes with Optically Tailorable Frequency
Tiantian Shi (*Nanjing University*); *Yuhao Zhai* (*Nanjing University*); *Wenbin Zhou* (*Nanjing University*); *Zerui Jin* (*Nanjing University*); *Tingyang Qin* (*Nanjing University*);

00:00 Beyond the Gain-narrowing Limit: 100-fs Pulse Generation via Gain-managed Nonlinear Amplification in Yb-doped Fiber
Jeong Seop Lee (*Korea Institute of Industrial Technology*); *Inchul Park* (*Hanyang University ERICA*); *Eunkyoung Park* (*Hanyang University ERICA*); *Jiwon Kim* (*Hanyang University*); *Hoon Jeong* (*Korea Institute of Industrial Technology*);

00:00 High-gain Compact Waveguide Slot Array Using Dielectric End-fire Structure for X-band Radar
Young-Bae Jung (*Hanbat National University*);

00:00 U-bridge Inclusion on Super-wideband Spearhead-shaped Monopole Antenna for Sub-GHz Spectrum Coverage
Agus Dwi Prasetyo (*Institut Teknologi Bandung*); *Dhoni Putra Setiawan* (*Telkom University*); *Zulfi* (*Institut Teknologi Bandung*); *Bambang Setia Nugroho* (*Telkom University*); *Indar Surahmat* (*Universitas Muhammadiyah Yogyakarta*); *Hasbi Nur Prasetyo Wisudawan* (*Islamic University of Indonesia*); *Chairunnisa* (*Institut Teknologi Bandung*); *Achmad Munir* (*Institut Teknologi Bandung*);

00:00 An Ultra-wideband, Wide-angle Scanning Antenna Array with Large Element Spacing Using Metal-loaded Tightly Coupled Elements
Ling-Lu Chen (*No. 36 Research Institute of China Electronics Technology Group Corporation*); *Lei Chang* (*No. 36 Research Institute of China Electronics Technology Group Corporation*); *Hui Wang* (*No. 36 Research Institute of China Electronics Technology Group Corporation*);

00:00 Adaptive Weight-free Optimization of a Dual-band Multi-modal OAM Antenna Array
Haoyang Li (*Nanjing University of Science and Technology*); *Jun Hu* (*Nanjing University of Science and Technology*); *Yu-Peng Yuan* (*Nanjing University of Science and Technology*); *Yue-Fei Hu* (*Nanjing University of Science and Technology*); *Siwen Zhang* (*Nanjing University of Science and Technology*); *Yi Chen* (*Nanjing University of Science and Technology*); *Fujing Tan* (*Nanjing University of Science and Technology*);

00:00 A Dual-band Bandpass Filter Based on CSRR-loaded Quarter-mode Substrate Integrated Waveguide
Jie Zheng (*Southwest University of Science and Technology*); *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 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 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*);

13:45 Climate Change Accelerates the Evolution of Reorganized River-lake Systems on the Tibetan Plateau
Xinya Kuang (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Shanlong Lu* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Liping Zhu* (*University of Chinese Academy of Sciences*); *Jiahua Wei* (*Qinghai University*); *Yuxiang Cui* (*Qinghai Provincial Hydrological and Water Resources Survey Bureau*); *Alice C. Hughes* (*University of Hong Kong*); *Guoqiang Shi* (*The Hong Kong Polytechnic University*); *Xidong Chen* (*The University of Hong Kong*); *Xinru Li* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

14:00 An Algorithm for Retrieving Range Direction Sea Surface Currents Based on Sentinel-1 SAR
Yuhang Zhou (*National University of Defense Technology*); *Xianbin Zhao* (*National University of Defense Technology*); *Weihua Ai* (*National University of Defense Technology*);

14:15 Ocean Perspective Detection Based on Multi-sensor Coordinated Aerial Remote Sensing
Xiaofeng Yang (*Nanjing University*);

14:30 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*);

14:45 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 Center for Space Weather), China Meteorological Administration*); *Hao Wang* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*);

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 Mitigation of Quasi-periodic Spectral Ripple in Microwave Hyperspectral Radiometers: 53–55 GHz O_2 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*);

16:30 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*);

16:45 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)*);

17:00 On the Quality of Tianmu-1 GNSS-R Wind Observations and Their Impacts on Tropical Cyclone Forecasts
Weicheng Ni (*National University of Defense Technology*); *Yanlai Zhao* (*National University of Defense Technology*);

17:15 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*);

17:30 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)*);

17:33 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*);

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 Aleksandrovna Hurshkainen, Georgiy A. Solomakha

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*);

00:00 Electromagnetic Design of MRI Hardware
Invited
Yaohui Wang (*Institute of Electrical Engineering, Chinese Academy of Sciences*); *Haoran Chen* (*Huazhong University of Science and Technology*); *Wenchen Wang* (*The University of Queensland*); *Benzhe Zhou* (*Institute of Electrical Engineering, Chinese Academy of Sciences*); *Guyue Zhou* (*Huazhong University of Science and Technology*); *Haotian Miao* (*Huazhong University of Science and Technology*); *Wenhui Yang* (*Institute of Electrical Engineering, Chinese Academy of Sciences*); *Hao He* (*Huazhong University of Science and Technology*); *Yiqing Yin* (*Institute of Electrical Engineering, Chinese Academy of Sciences*); *Feng Liu* (*The University of Queensland*);

13:50 Water-content-guided Physics-informed Neural Network for Robust Magnetic Resonance Electrical Properties Tomography
Jijun Han (*Anhui Medical University*);

14:05 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*);

14:20 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*);

14:35 Magnetic Resonance Electrical Properties Tomography: Current Limits and Future Prospects
Invited
Donghyun Kim (*Yonsei University*);

14:55 Coaxial Dipole Transceiver Arrays for MRI of Human Brain and C-spine at 9.4 T
Invited
Georgiy Solomakha (*MPI for Biological Cybernetics*);

15:15 Accessible T2 Map Reconstruction Using Pulseq Sequences and KomaMRI-simulated Dictionaries
Zilya Badrieva (*ITMO University*); *Ekaterina Brui* (*ITMO University*);

16:00 Self-supervised Physics-guided Generation of Digital MRI Phantoms
Kseniya Belousova (*ITMO University*); *Zilya Badrieva* (*ITMO University*); *Walid Al-Haidri* (*ITMO University*); *Ekaterina A. Brui* (*ITMO University*);

16:15 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*);

16:30 Invited 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*);

16:50 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*);

17:05 Load-insensitive Wireless RF Coil for Dedicated Breast MRI
Pavel M. Tikhonov (*ITMO University*); *Alexander D. Fedotov* (*ITMO University*); *Anna Aleksandrovna Hurshkainen* (*ITMO University*);

17:08 Keynote 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*);

17:38 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*);

17:53 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 Invited Ultra-compact, Low Crosstalk Silicon Photonic Devices
Ciyuan Qiu (*Shanghai Jiao Tong University*);

13:20 Invited NIR Single-pixel On-chip Spectroscopy Based on Optomechatronic Integration
Yuyao Lu (*Jinan University*); *Huijun Yu* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*); *Long Wen* (*Jinan University*); *Wenjiang Shen* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*); *Qin Chen* (*Jinan University*);

13:40 Invited Mid-infrared Silicon Photonic Devices for Spectroscopic Sensing
Zunyue Zhang (*Tianjin University*); *Zhijie Wei* (*State Key Laboratory of Precision Measuring Technology and Instruments*); *Rongxiang Guo* (*Tianjin University*); *Shujiao Zhang* (*State Key Laboratory of Precision Measuring Technology and Instruments*); *Tiegen Liu* (*Tianjin University*); *Zhenzhou Cheng* (*Tianjin University*);

14:00 Invited Resolution and Robustness Bounds for Reconstructive Spectrometers
Changyan Zhu (*Nanyang Technological University*); *Hsuan Lo* (*Nanyang Technological University*); *Jianbo Yu* (*Nanyang Technological University*); *Qi Jie Wang* (*Nanyang Technological University*); *Yidong Chong* (*Nanyang Technological University*);

14:20 Invited Computational Microspectrometer Based on Amorphous Silicon Metasurfaces
Shaonan Zheng (*Shanghai University*);

14:40 Invited High-performance Resonator-based On-chip Spectrometer
Boshu Sun (*Westlake University*); *Kangjian Bao* (*Westlake University*); *Qingyan Deng* (*Westlake University*); *Xu Yang* (*Westlake University*); *Zequn Chen* (*Westlake University*); *Lan Li* (*Westlake University*);

00:00 Invited Silicon Photonics for Spectral Sampling and Reconstruction
Ang Li (*Nanjing University of Aeronautics and Astronautics*);

00:00 Invited In Situ Spectral Reconstruction Based on a Memristor Chip for Energy-efficient Computational Spectrometry
Han Zhao (*Tsinghua University*); *Lei Wang* (*Shanghai Jiao Tong University*); *Yanze Zhou* (*Tsinghua University*); *Jianshi Tang* (*Tsinghua University*); *Weiwei Cai* (*Shanghai Jiao Tong University*); *Huaqiang Wu* (*Tsinghua University*);

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 Throughtput 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*);

00:00 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*);

00:00 Multispectral Quantitative Optoacoustic Imaging for Cancer Research
Jiao Li (*Tianjin University*);

17:45 Light-matter Interactions at Interfaces: From Radiation Control to Nanoscale Bio-photonics
Xiaolan Zhong (*Beihang University*);

18:00 Circular Scanning Fluorescence Correlation Spectroscopy (CS-FCS) for Probing Molecular Dynamics of Sparse or Heterogeneous Samples
Lan Yu (*Xidian University*); *Xiaoman Dong* (*Xidian University*); *Weihui Zeng* (*The Second Affiliated Hospital of Xi'an Jiaotong University*); *Cuiping Yao* (*Xi'an Jiaotong University*); *Peng Gao* (*Xidian University*);

18:15 Selective-plane Structured-illumination Microscopy Using Multifocal Fluorescence Activation
Xing Zhou (*The University of Osaka*); *Kenta Temma* (*The University of Osaka*); *Ryohei Ozaki-Noma* (*The University of Osaka*); *Heqi Xi* (*The University of Osaka*); *Takeharu Nagai* (*The University of Osaka*); *Katsumasa Fujita* (*The University of Osaka*);

Session 2P4a
Electromagnetic Forces, from Fundamentals to Applications 2

Wednesday PM, July 29, 2026

Room 4 - CR 8

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

Chaired by Olivier J. F. Martin, Xiaohao Xu

13:00 Invited Trapping and Rotating of Microparticles Using Freely Shaped Digital Lenses
Yansheng Liang (*Xi'an Jiaotong University*); *Tianyu Zhao* (*Xi'an Jiaotong University*); *Shaowei Wang* (*Xi'an Jiaotong University*); *Ming Lei* (*Xi'an Jiaotong University*);

13:20 Invited Orbital Recoil Torque via Optical Vortex Stimulated Emission
Mamoru Tamura (*Kwansei Gakuin University*); *Y. Umekawa* (*The University of Osaka*); *T. Horai* (*The University of Osaka*); *M. Ashida* (*The University of Osaka*); *H. Ishihara* (*The University of Osaka*);

13:40 Optomechanical Metamaterials and Optobots
Muamer Kadic (*University Bourgogne Franche-Comte*);

13:55 Invited Optically-driven Nano-motor Designed by Generative Artificial Intelligence
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 Invited Nanodrone Driven by Symmetry-selective Light Recoiling
Jack Ng (*Southern University of Science and Technology*);

14:50 Invited Optothermal Ice-Water Interface Management for Cross-scale Enrichment and Molecular Sensing
Jiajie Chen (*Shenzhen University*); *Yonghong Shao* (*Shenzhen University*); *Junle Qu* (*Shenzhen University*);

15:10 Invited Dielectrophoresis as a Quasi-static Electromagnetic Force: From Classical Theory to Cellular Applications
Ronald Pethig (*The University of Edinburgh*);

Session 2P4b
Numerical Methods in Analysis and Design of Metasurfaces

Wednesday PM, July 29, 2026

Room 4 - CR 8

Organized by Jun Wei Wu, Mengmeng Li

Chaired by Jun Wei Wu, Mengmeng Li

13:00 Integral Equations for the Electromagnetic Modelling of Geometrically Complex Multi-scale Problems
Invited
Francesca Vipiana (*Politecnico di Torino*);

13:20 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*);

13:35 Electromagnetic Sensing and Manipulation Based on Information Metasurface
Junyan Dai (*Southeast University*);

13:50 Analyzing Periodic Arrays Mounted on Platform Using Fast Model Order Reduction Method
Hanru Shao (*University of Electronic Science and Technology of China (UESTC)*);

14:05 A Parallel Algorithm for High-order Bodies of Revolution Using Equivalence Principle Algorithm
Hongxi Wu (*Nanjing University of Science and Technology*); *Jinwei Zhang* (*Nanjing University of Science and Technology*); *Jihong Gu* (*Nanjing University of Science and Technology*); *Mengmeng Li* (*Nanjing University of Science and Technology*); *Dazhi Ding* (*Nanjing University of Science and Technology*);

14:20 Distributed Space-time-coding Metasurfaces for Positional Information Modulation
Hui Xu (*Southeast University*); *Junwei Wu* (*Southeast University*); *Tie Jun Cui* (*Southeast University*);

14:35 Compact Three-stage Equal-split Ultra-wideband Differential 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*);

14:50 Spatial DoF Identification via Dual-sided Hadamard Projections with Programmable Metasurfaces
Xuan Jing Li (*Southeast University*); *Junwei Wu* (*Southeast University*);

15:05 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 9

Organized by Chang Ding, Shanzhe Wang

16:00 A Miniaturized and No-PRS RC Antenna with Sidelobe Suppression
Deke Huang (*Shenzhen University*); *Siyao Xu* (*Shenzhen University*); *Mingxuan Liang* (*Shenzhen University*); *Qingyi Guo* (*City University of Hong Kong*);

16:15 Metasurfaces Intelligent Control Architectures Research
Ruichao Zhu (*Air Force Engineering University*);

16:30 A Novel CP-LP Reconfigurable Antenna Using Phase Changing Material
Siyao Xu (*Shenzhen University*); *Runcong Lv* (*Shenzhen University*); *Qingyi Guo* (*Shenzhen University*);

16:45 Low-profile Ku-band Dual-polarized Phased Array Antenna with Wide-angle Scanning Capability
Shuai Li (*National University of Defense Technology*); *Weiwei Wu* (*National University of Defense Technology*); *Shaozhi Wang* (*National University of Defense Technology*); *Jingjian Huang* (*National University of Defense Technology*); *Shixian Li* (*National University of Defense Technology*);

17:00 A High-precision DOA Estimation Method Based on 2-bit Metasurfaces
Lin Qin (*National University of Defense Technology*); *Shaozhi Wang* (*National University of Defense Technology*); *Weiwei Wu* (*National University of Defense Technology*); *Shuai Li* (*National University of Defense Technology*); *Kaibo Cui* (*National University of Defense Technology*);

17:15 High-gain Wide-angle Frequency Scanning Antenna Based on SSPP
Yunqi Zhang (*Xi'an University of Posts & Telecommunications*); *Jichao Yang* (*Xi'an University of Posts and Telecommunications*); *Kechen Xi* (*Xi'an University of Posts and Telecommunications*); *Jianxiao Wang* (*National Key Laboratory of Science and Technology on Space Microwave, China Academy of Space Technology*); *Rong Zou* (*Xidian University*); *Shanzhe Wang* (*National University of Defense Technology*);

00:00 Design of a Single-layer High-efficiency Ultra-wideband Polarization-converting Metasurface
Qilin Ren (*Shenyang Aerospace University*); *Shuang Ma* (*Shenyang Aerospace University*); *Jiahao Liu* (*Shenyang Aerospace University*);

00:00 Design of a High-temperature-resistant RCS Reduction Metamaterial with a Transmission Window
Yudeng Wang (*Air Force Engineering University*); *Xinmin Fu* (*Air Force Engineering University*); *Yong Sun* (*Air Force Engineering University*);

00:00 Group Theory in Vortex Light-matter Interactions
Jie Yang (*Airforce Engineering University*); *Jiafu Wang* (*Air Force Engineering University*); *Xuezhi Zheng* (*Nanjing University of Aeronautics and Astronautics*);

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

Wednesday PM, July 29, 2026

Room 5 - CR 9

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*);

00:00 Design of an Intelligent Speech Enhancement and Infrared Wireless Transmission System for Conference Scenarios
Yongtu Hao (*Guangdong Technical Normal University*); *Hui Liu* (*Guangdong Polytechnical Normal University*); *Peng Wang* (*University of Electronic Science and Technology of China*); *Zuozhen Wang* (*University of Electronic Science and Technology of China*); *Peng Mei* (*Huazhong University of Science and Technology*);

00:00 Multi-objective Optimization of 915 MHz Dual-chip UHF RFID Tag Antenna Using Fully Connected Neural Network
Junxi Tang (*Guangdong Polytechnical Normal University*); *Hui Liu* (*Guangdong Polytechnical Normal University*); *Zhinong Ying* (*University of Electronic Science and Technology of China*); *Peng Mei* (*Huazhong University of Science and Technology*); *Linlong Wu* (*University of Electronic Science and Technology of China*);

Session 2P6a
High Power Microwaves: Sources and Applications 3

Wednesday PM, July 29, 2026

Room 6 - CR 10

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

Chaired by Nikolai Yu. Peskov, Wenjie Fu

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. Navrotskiy* (*Fundamental Research Laboratory, RPE "Almaz"*); *Nikita Mikhailovich Ryskin* (*V. A. Kotel'nikov Institute of Radio Engineering and Electronics RAS*);

13:30 A Surrogate-assisted Design Scheme for Magnetic Cusp Guns Based on Pareto-optimal Transverse Velocity Distributions
Runfeng Tang (*Huazhong University of Science and Technology*); *Houxiu Xiao* (*Huazhong University of Science and Technology*); *Xianfei Chen* (*Huazhong University of Science and Technology*);

13:45 Optical Semiconductor Switch for Generating Superpowerful THz Pulses
Sergey V. Morozov (*Institute for Physics of Microstructures of RAS*); *Vladimir V. Utochkin* (*Institute for Physics of Microstructures RAS*); *D. V. Shengurov* (*Institute for Physics of Microstructures of RAS*); *E. E. Morozova* (*Institute for Physics of Microstructures of RAS*); *P. V. Volkov* (*Institute for Physics of Microstructures RAS*); *D. A. Semikov* (*Institute for Physics of Microstructures RAS*); *A. N. Yablonskiy* (*Institute for Physics of Microstructures RAS*); *V. E. Zakharov* (*Institute for Physics of Microstructures RAS*); *A. E. Pestov* (*Institute for Physics of Microstructures of the Russian Academy of Sciences*); *M. S. Mikhailenko* (*Institute for Physics of Microstructures RAS*); *A. A. Akhsakhalyan* (*Institute for Physics of Microstructures RAS*); *Alexey V. Palitsin* (*Institute of Applied Physics, Russian Academy of Sciences*); *Mikhail Yu. Glyavin* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Grigory G. Denisov* (*Institute of Applied Physics, Russian Academy of Sciences*);

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*);

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*);

15:00 A Design Method for a Linear Array Power Division Feeding Network Applied to Offset-fed Reflector Cylindrical Antennas
Lulu Jin (*National University of Defense Technology*); *Chengwei Yuan* (*National University of Defense Technology*); *Qiang Zhang* (*National University of Defense Technology*); *Quan Zhang* (*National University of Defense Technology*); *Qinghe Zhuang* (*National University of Defense Technology*); *Yunfei Sun* (*National University of Defense Technology*);

Session 2P6b
Microwave, mmWave, and sub-Terahertz Integrated Circuits

Wednesday PM, July 29, 2026

Room 6 - CR 10

Organized by Xuyang Lu, Peigen Zhou

00:00 Invited Exploiting New Degrees of Freedom: Unlocking Next-gen Sensing & Communication Modalities
Jingzhi Zhang (*University of Electronic Science and Technology of China*);

16:20 Invited Area- and Power-efficient CMOS Bi-directional Front-end for B5G Phased-arrays
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* (*Southeast University*); *Hang Wong* (*City University of Hong Kong*);

00:00 An Energy-efficient 210-GHz CMOS Transceiver Designed for Contactless Through-silicon Interconnects
Xiaodi Feng (*Fudan University*); *Xiaohan Shen* (*Fudan University*); *Chen Jiang* (*Fudan University*);

17:10 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*);

17:13 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*);

17:28 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*);

17:43 An 11.45-to-37.84 GHz Quad-core Quad-mode VCO Using E-M Mixed-coupling Resonance Boosting
Yuqing Yang (*Southeast University*); *Shunda Peng* (*Southeast University*); *Kai Sun* (*Southeast University*); *Xuan Wang* (*Southeast University*); *Shutao Ye* (*Southeast University*); *Ziqi Liu* (*Southeast University*); *Lianming Li* (*Southeast University*);

17:58 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*);

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

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

13:00 An Online Co-simulation Optimization Method for Relativistic Magnetron Based on Surrogate-assisted Evolutionary Algorithm
Yao Zhang (*University of Electronic Science and Technology of China*); *Tingxu Chen* (*University of Electronic Science and Technology of China*); *Bo Zhao* (*University of Electronic Science and Technology of China*);

13:03 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*);

13:06 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*);

13:09 Dual-wavelength Metalens Design for Compact LWIR and MWIR Imaging Systems
Ting Liu (*University of Electronic Science and Technology of China*); *Weiming Zhu* (*University of Electronic Science and Technology of China*); *Shaowei He* (*University of Electronic Science and Technology of China*);

13:12 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* (*Insitute 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*);

13:15 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*);

13:18 Transmissive Pancharatnam-Berry Phase Metasurface for Circularly Polarized Beam Steering in the C-band Space Applications
Aman Tiwari (*National Institute of Technology Calicut*); *Aryan Chak* (*National Institute of Technology Calicut*); *Natesan Yogesh* (*National Institute of Technology Calicut*);

13:21 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*);

13:24 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*);

13:27 Broadband Convolutional Processing Using Nonlinear Photoresponse in Transition Metal Dichalcogenides
Yingshan Ma (*Beijing Institute of Technology*); *Yunyun Dai* (*Beijing Institute of Technology*);

13:30 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*);

13:33 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*);

13:36 kHz-rate Modulation of MEMS Infrared Heater via External Mechanical Chopping for Enhanced Photoacoustic Detection
Zeru Wang (*Tianjin University*); *Yujie Wei* (*Tianjin University*); *Weiwei Cui* (*Tianjin University*); *Hao Zhang* (*Tianjin University*);

13:39 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*);

13:42 Improving Stability of Inverted Perovskite Solar Cells without Cathode Interlayer via Doped $PC_{61}BM$ by N-DMBI
Jialin Yang (*Jilin University*); *Zilong Bing* (*Jilin University*); *Jingsong Huang* (*University of Oxford*); *Fenghong Li* (*Jilin University*);

13:45 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*);

13:48 A Dual-band Bezel-integrated Antenna with Wide Beamwidth for Low-orbit Satellite-to-handset Communication
Jiarui Liu (*Tsinghua University*); *Yue Li* (*Tsinghua University*);

13:51 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*);

13:54 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*);

13:57 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*);

14:00 Superpixel Segmentation Method for Polarimetric SAR Images Integrating Statistical Features and Edge-aware Spatial Constraints
Cong Huang (*Northwestern Polytechnical University*); *Sutong Wang* (*Northwestern Polytechnical University*); *Hongyu Long* (*Northwestern Polytechnical University*); *Chun Liu* (*Northwestern Polytechnical University*);

14:03 Automatic Inversion of Concrete Moisture Content Based on GPR B-scan Images and Faster R-CNN Network
Shuangying Sun (*Beijing Institude of Technology*); *Jing Wen* (*Beijing Institute of Technology*); *Yuhan Li* (*Beijing Institute of Technology*); *Tian Lan* (*Beijing Institute of Technology*);

14:06 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*);

14:09 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*);

14:12 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*);

14:15 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*);

14:18 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*);

14:21 Differentiable-response-guided Deep Learning Inversion for Azimuthal Electromagnetic Logging While Drilling
Shuo Wang (*Hefei University of Technology*); *Rencheng Song* (*Hefei University of Technology*);

14:24 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*);

14:27 Deep-learning-enhanced Transcranial Microwave-induced Thermoacoustic Imaging of Millimeter-scale Metallic Targets
Yunxiao Zhao (*ShanghaiTech University*); *Xiong Wang* (*ShanghaiTech University*);

14:30 Improvement of Phased Antenna Array Applied in Transcranial Focused Microwave Hyperthermia
Zijun Xi (*ShanghaiTech University*); *Xiong Wang* (*ShanghaiTech University*);

14:33 Magnet Configurations in m-shaped Variable Reluctance Energy Harvesters
Mengfei Wu (*Mid Sweden University*); *Ye Xu* (*Mid Sweden University*); *Sebastian Bader* (*Mid Sweden University*); *Bengt Oelmann* (*Mid Sweden University*);

14:36 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*);

14:39 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*); *Weixing Yu* (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*);

14:42 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*);

14:45 Electromagnetic Modal Modeling of Multi-scatterer Wireless Propagation in Localized Environments
Wenli Li (*Shenzhen Research Institute of Big Data*); *Yi Zhang* (*Shenzhen Research Institute of Big Data*); *Guangxu Zhu* (*Shenzhen Research Institute of Big Data*);

14:48 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*);

14:51 TCAD Simulation on Optoelectronic Properties of n-AlN/p-Si Heterojunction VUV Photodetectors
Yang Zhang (*Fudan University*); *Hongyu Tang* (*Fudan University*);

14:54 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*);

14:57 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*);

15:00 Specific Emitter Identification Method for Variable Symbol Rate Communications
Dengxi Wang (*National University of Defense Technology*); *Hui Liu* (*National University of Defense Technology*);

15:03 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*);

15:06 Q-modulated Nanophotonic Refractometric Sensing
Jiacheng Sun (*Westlake University*); *Liaoyong Wen* (*Westlake University*);

15:09 Tailoring Multidimensional Speckle via Physics-informed Learning
Ze-Huan Zheng (*Xiamen University*); *Jinhui Chen* (*Xiamen University*);

15:12 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*); *Weiting 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*);

15:15 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*);

15:18 A 3.2-GHz Stacked Class-E Power Amplifier in 180-nm SiGe BiCMOS
Luyan Xiao (*Shanghai Jiao Tong University*); *Shiyu Su* (*University of Waterloo*); *Xuyang Lu* (*Shanghai Jiao Tong University*);

00:00 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*);

Session 2P7b
Advances of Numerical Methods and Techniques in Computational Electromagnetics

Wednesday PM, July 29, 2026

Room 7 - VIP R3

Organized by Mei Song Tong, Li Zhang

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*); *Fan Shuo Liu* (*Shanghai University of Engineering Science*);

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 Power-temperature Mapping Based Smartphone Battery Life Prediction
Kaiqi Yang (*Shanghai University of Engineering Science*); *Shu Jia Yan* (*Shanghai University of Engineering Science*); *Xinbo Liu* (*Shanghai Marine Equipment Research Institute*); *Mingyue Cao* (*Shanghai University of Engineering Science*); *Xuetong Yan* (*Shanghai University of Engineering Science*);

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*); *Hua Ding* (*High School Affiliated To Nanjing Normal University Suqian Campus*); *Kaiqi Yang* (*Shanghai University of Engineering Science*);

18:00 A Physics-consistent Imaging Method Based on Differentiable Forward Operator for Electromagnetic Inverse Scattering
Hao Ming Lv (*Shanghai Normal University*); *Chunxia Yang* (*Shanghai Normal University*); *Mei Song Tong* (*Tongji University*);

Session 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 Invited Nonlocal Meta-lens for High-Q Wavefront Shaping
Jin Yao (*City University of Hong Kong*); *Din Ping Tsai* (*City University of Hong Kong*);

13:20 Invited Wavelength-scale Nonlocal Meta-devices for Light Trapping and Vector Beam Emitting
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*);

13:40 Invited Multifunctional 3D-printed Metasurfaces for Multidimensional Light-field Modulation
Hongtao Wang (*Singapore University of Technology and Design*);

14:00 Invited Sandwiched Plasmonic Metasurface for Efficient Polarization Conversion
Song Sun (*Microsystem and Terahertz Research Center, China Academy of Engineering Physics*); *Qingguo Du* (*Wuhan University of Technology*);

00:00 Invited Near-field Coupling Metasurface Antenna Design for Arbitrary Steered Wavefront Generations
Yuanxi Cao (*Xi'an Jiaotong University*);

14:40 Invited A Brain-controlled Space-Time Coding Metasurface
Qiang Xiao (*City University of Hong Kong*);

15:00 Invited Chip-integrated Metasurface for Multidimensional Light-field Imaging
Boyan Fu (*Nanjing University*); *Shu-Ming Wang* (*Nanjing University*); *Xun Cao* (*Nanjing University*); *Shi-Ning Zhu* (*Nanjing University*);

16:00 Invited AI-enabled Multimodal Meta-lens Vision
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)*);

16:20 Invited High-resolution Wavefront Sensing with Flat Optics
Yunhui Gao (*Tsinghua University*); *Liangcai Cao* (*Tsinghua University*); *Din Ping Tsai* (*City University of Hong Kong*);

16:40 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*);

16:55 Metalens-enabled Twisted Chromatic Dispersion
Shiyu Zheng (*Nanjing University*); *Boyan Fu* (*Nanjing University*); *Hong Zhang* (*Nanjing University*); *Shu-Ming Wang* (*Nanjing University*);

17:10 Boyer-Wolf Gaussian Modes Generation Based on Metasurface-integrated Fiber
Geze Gao (*Nanjing University*); *Shu-Ming Wang* (*Nanjing University*);

17:25 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*);

17:40 Optically Transparent and Flexible Metasurface for RCS Reduction Based on a Synergistic Mechanism of OAM and Destructive Interference
Yaru Li (*Northwestern Polytechnical University*); *Junyu Ren* (*Northwestern Polytechnical University*); *Mingze Hu* (*Northwestern Polytechnical University*); *Xiaoyan Pang* (*Northwestern Polytechnical University*);

17:43 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*);

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

13:20 Enhanced Energy Absorption in Honeycombs via Negative Local Resonance Plates
Jing Rao (*Beihang University*); *Yao Huang* (*Beihang University*);

13:35 Invited Research on Low-frequency Broadband Sound Absorption Metamaterials and Their Engineering Applications
Chongrui Liu (*Xi'an Jiaotong University*);

13:55 Invited Acoustic Orbital Topology
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*);

14:15 Invited An AutoML-powered Automated Framework for Inverse Design of Metamaterial Plates with Targeted Vibration Reduction
Zijian Zhao (*Northwestern Polytechnical University*); *Shuwei Ren* (*Northwestern Polytechnical University*); *Xiangyang Zeng* (*Northwestern Polytechnical University*);

14:35 Invited Acoustic Metamaterials Design for Aircraft Noise Reduction
Jie Zhou (*Northwestern Polytechnical University*); *Hanjie Yang* (*Northwestern Polytechnical University*); *Xiaoxiao Xu* (*Northwestern Polytechnical University*);

14:55 Invited Inverse Design of a Metamaterial-based Spinal Fixation System for Optimized Stability and Osseointegration
Hui Chen (*Ningbo University*);

15:15 Invited Research on the Snapping Shrimp Sounds and Extension to Bioinspired Design
Zhongchang Song (*Xiamen University*); *Wenzhan Ou* (); *Xuming Peng* (); *Luyao He* (); *Kanglin Wang* (); *Yufei Yin* (); *Zihan Xu* (); *Yu Zhang* (*Xiamen University*);

16:00 Invited Acoustic Metamaterials for Noise Control: From Fundamental 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*);

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

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

00:00 Invited Dynamic and Wave Propagation Characteristics of the Regular Hexagonal Prism Modular Tensegrity Structure
Kai Zhang (*Northwestern Polytechnical University*);

00:00 Invited Lightweight and Multifunctional Mechanical Metamaterials Based on Disordered Designs
Bing Li (*Northwestern Polytechnical University*); *Zhou Yang* (*Northwestern Polytechnical University*); *Fenglei Li* (*Northwestern Polytechnical University*); *Jiani Xiao* (*Northwestern Polytechnical University*);

00:00 Invited Ultrasonic Guided Wave Imaging Method for Near-boundary Defects Based on Elastic Absorptive Metamaterials
Ailing Song (*East China University of Science and Technology*);

00:00 Invited LLMs-based Design Methods for Ultralight Multifunctional Metastructures
Yongfeng Jiang (*Nanjing University of Aeronautics and Astronautics*); *Siyang Cao* (*Nanjing University of Aeronautics and Astronautics*); *Han Meng* (*Nanjing University of Aeronautics and Astronautics*); *Tian Jian Lu* (*Nanjing University of Aeronautics and Astronautics*);

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 Polarization-multiplexed Metasensing via Anisotropic Nanostructures: From Polarization Imaging to Integrated Optoelectronic Devices
Invited
Jingxuan Wei (*University of Electronic Science and Technology of China*);

13:20 Metasurface-enabled Semiconductor Lasers: From On-chip Wavefront Engineering to Mode-controlled External Cavities
Invited
Xin Huang (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*); *Meixin Feng* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*); *Hui Yang* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*); *Qian Sun* (*Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences*);

13:40 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)*); *Zhaogang Dong* (*Singapore University of Technology and Design*);

13:55 Long-range Optical Interactions with Structured Nanoscale Materials
Invited
Danqing Wang (*Fudan University*);

14:15 Nanostructure Lattices and Their Nanophotonic Devices
Invited
Shikai Deng (*Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences*);

14:35 Controlling Lanthanide Optical Dynamics for Advanced X-ray Detection
Invited
Yiming Wu (*Xiamen University*);

14:55 Nanoscale 3D Printing of Photonic Elements
Keynote
Joel K. W. Yang (*Singapore University of Technology and Design*);

16:00 Metasurface for Quantum Optics
Invited
Lin Li (*East China Normal University*);

16:20 Atomic-scale Manufacturing for Chemical Sensing
Invited
Bowei Zhang (*East China University of Science and Technology*);

00:00 Tracking Cancer Progression and Treatment Response by Machine Learning-enhanced Metasurface Profiling of Extracellular Vesicles
Invited
Fajun Li (*Xiamen University*); *Jinfeng Zhu* (*Xiamen University*);

00:00 Near-field Seeing the Colorful Nano-world
Invited
Xuezhi Ma (*A*STAR*);

00:00 MEMS Photonic Sensors for Biochemical Detection
Invited
Hong Zhou (*Northwestern Polytechnical University*);

00:00 Physics-inspired Design of Meta-devices
Invited
Lei Jin (*Hangzhou Dianzi University*);

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*); *Tantao 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
Zhaoxian Chen (*Nanjing University*); *Yuan-Hong Zhang* (*Hunan University*); *Xiao-Chen Sun* (*Nanjing University*); *Ruo-Yang Zhang* (*Hong Kong University of Science and Technology*); *Jiangshan Tang* (*Nanjing University*); *Xin Yang* (*Hunan University*); *Xuefeng Zhu* (*Huazhong University of Science and Technology*); *Yan-Qing Lu* (*Nanjing University*);

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*);

00:00 Electric-dipole-suppressed Third-harmonic Chiroptical Scattering with Linear Polarization
Ruidong Ji (*University of Bath*); *Bradleigh Kerrigan* (*University of Bath*); *Oliver Nedderman* (*University of Bath*); *G. Dan Pantoş* (*University of Bath*); *Ventsislav K. Valev* (*University of Bath*);

00:00 Asymmetric Terahertz Metasurfaces with Quasi-BIC Modes and Dual-channel Applications
Qun Ren (*Tianjin University*); *Zihan Zhao* (*Tianjin University*); *Hengtong Zheng* (*Tianjin University*); *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* (*Southeast University*); *Wei E. I. Sha* (*Zhejiang University*); *Xiuyu Wang* (*Tianjin University*); *Jianquan Yao* (*Tianjin University*);

14:50 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*);

Session 2P11b
Metamaterials and Plasmonics for Environmental Science 1

Wednesday PM, July 29, 2026

Room 11 - CR 15

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

Chaired by Ventsislav K. Valev, Xuezhi Zheng

16:00 Keynote Photothermal Effects and Thermophotonics for Advanced Plasmonic Printing and Colored Radiative Cooling
Dangyuan Lei (*City University of Hongkong*);

00:00 Invited Inorganic Nanopillar Arrays Remarkedly Enhance Photovoltaic Performance of Perovskite Solar Cells
Zhifeng Huang (*The Chinese University of Hong Kong (CUHK)*);

16:50 Invited Modelling Nonlinear Optical Response of Arbitrary Clusters of Nanoparticles
Ivan Sekulic (*University College London*); *Nicolae-Coriolan Panoiu* (*University College London*);

17:10 Invited Nanostructured Plasmonically Active Titanium Nitride Thin Films for Scalable Antimicrobial Application
R. Bower (*Imperial College London*); *W.-J. (Allen) Chen* (*Imperial College London*); *B. Rente* (*Imperial College London*); *Peter K. Petrov* (*Imperial College London*);

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* (*Isituto Italiano di Tecnologia*); *Maria Ashraf* (*Isituto 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 Keynote Cavity Vacuum Field Control of Mesoscopic Moiré Systems
Wang Yao (*The University of Hong Kong*);

13:30 Invited A Path to Quantum Simulations of Topological Phases: (**2** + **1**)D Quantum Electrodynamics with Wilson Fermions
Sriram Bharadwaj (*University of California*); *Emil Rosanowski* (*University of Bon*); *Simran Singh* (*University of Bon*); *Alice Di Tucci* (*Deutsches Elektronen-Synchrotron DESY*); *Changnan Peng* (*Massachusetts Institute of Technology*); *Karl Jansen* (*Deutsches Elektronen-Synchrotron DESY*); *Lena Funcke* (*University of Bon*); *Di Luo* (*Tsinghua University*);

13:50 Invited Cavity Tuning Integer Quantum Hall Effect
Jie Wang (*Peking University*);

14:10 Invited Superradiant Strongly Correlated Quantum States in 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 Invited Imaging of Hot Electrons in Semiconductor Nanodevices via Thermal Casimir Effect
Zhenghua An (*Fudan University*);

14:50 Invited Manipulating Nonlinear Optical Effects in Low-dimensional Materials
Chong Wang (*Tsinghua University*);

15:10 Invited Dirac and Weyl Physics with Plasmons
Dmitry K. Efimkin (*Monash University*);

16:00 Invited Coherent Nonlinear Magnon-phonon Dynamics and Related Cavity Effects in Layered Antiferromagnets
Qi Zhang (*Nanjing University*);

16:20 Invited The Control of Fabry-Pérot Nanocavities via Casimir 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 Invited Cavity QED Control of Superconducting States with 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 Invited Novel Quantum Fluctuation Effects in Condensed Matter 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*);

14:00 Non-asymptotic Approximation Error Bounds of Parameterized Quantum Circuits
Zhan Yu (*Wuhan University*); *Qiuhao 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*);

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)*);

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 Invited Towards Scalable Fault-tolerant Quantum Computing: Real-time Neural Decoding and System Architecture
Jianxin Chen (*Tsinghua University*);

16:20 Invited Exponential Quantum Advantages for Practical Non-Hermitian Eigenproblems
Xiao-Ming Zhang (*South China Normal University*); *Yukun Zhang* (*Peking University*); *Wenhao He* (*Massachusetts Institute of Technology*); *Xiao Yuan* (*Peking University*);

16:40 Invited On the DQC1-completeness of Normalized Trace Estimation
Zhengfeng Ji (*Tsinghua University*); *Tongyang Li* (*Peking University*); *Changpeng Shao* (*Academy of Mathematics and Systems Science, Chinese Academy of Sciences*); *Xinzhao Wang* (*Peking University*); *Yuxin Zhang* (*Academy of Mathematics and Systems Science, Chinese Academy of Sciences*);

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 - VIP R5

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*); *H. Yuan* (*University of Electronic Science and Technology of China*); *Y. 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
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*);

00:00 Invited Terahertz Waveguides and Manipulation: In-fiber Integrated Opitcal Devices in the Range of THz
Yuanyuan Xiang (*Harbin Engineering University*); *Fengjun Tian* (*Harbin Engineering University*); *Xinghua Yang* (*Harbin Engineering University*); *Li Li* (*Harbin Institute of Technology*);

00:00 Invited Terahertz Highly Integrated Phased Array Based on GaN/GaAs-coding Metasurface
Feng Lan (*University of Electronic Science and Technology of China*);

00:00 Invited Bound States in the Continuum in Photonic Crystals: From Band Folding to Terahertz Wave Control
Haiyu Meng (*Xiangtan University*);

Session 2P14b
Terahertz Technologies at Scale: Devices, Systems, and Material Characterization

Wednesday PM, July 29, 2026

Room 14 - VIP R5

Organized by Abdullah Eroglu

Chaired by Abdullah Eroglu

17:00 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*);

17:15 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*);

17:30 Ultra-wideband 1-bit Graphene-based RIS Unit Cell for Sub-THz Applications
Son Vu (*SUNY Polytechnic Institute*); *Abdullah Eroglu* (*SUNY Polytechnic Institute*);

17:45 Investigation of THz Cavity Characteristics
K. Kumar (*SUNY Polytechnic Institute*); *K. Ibrahimovic* (*SUNY Polytechnic Institute*); *Abdullah Eroglu* (*SUNY Polytechnic Institute*);

18:00 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 Ga_2O_3 Optoelectronic Devices

Wednesday PM, July 29, 2026

Room 15 - CR 18

Organized by Daoyou Guo, Jun Hu

Chaired by Daoyou Guo

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

00:00 Invited Recent Process in Ultra-wide Bandgap Semiconductor Gallium Oxide Materials and Devices
Weihua Tang (*Nanjing University of Posts and Telecommunications*);

13:40 Invited Insight into Giant External Quantum Efficiency in Ga_2O_3 Schottky Photodiodes
Xinyi Pei (*Nanjing University*); *Jiandong Ye* (*Nanjing University*); *Fang-Fang Ren* (*Nanjing University*);

00:00 Invited Interfacial Barrier Engineering for High-performance Ga_2O_3 Solar-blind Photodetectors
Dianmeng Dong (*Beijing University of Posts and Telecommunications*); *Zhenping Wu* (*Beijing University of Posts and Telecommunications*);

14:20 Invited Defect Engineering and Heterostructure Design of Ultrawide Bandgap Gallium Oxide for High-performance Deep Ultraviolet Photodetectors
Wenrui Zhang (*Ningbo Institute of Materials Technology and Engineering, CAS*); *Dongyan Han* (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); *Jianguo Zhang* (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); *Xiaoli Zhang* (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); *Ningtao Liu* (*Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences*); *Jichun Ye* (*Ningbo Institute of Material Technology and Engineering, Chinese Academy of Sciences*);

00:00 Invited Performance Regulation and Applications of GaN-based Heterostructure Ultraviolet Photodetectors
Guofeng Yang (*Jiangnan University*); *Huazhen Sun* (*Jiangnan University*); *Xinyi Shan* (*Jiangnan University*);

15:00 Invited Advanced Heterogeneous Integration and Multi-physical Field Coupling in Wide-bandgap Semiconductor Optoelectronics
Jun Hu (*Zhejiang University*);

00:00 Invited Bio-hydrovoltaic Solar-blind Ultraviolet Photodetector
Qichang Hu (*Fujian Agriculture and Forestry University*); *Wei Wang* (*Fujian Agriculture and Forestry University*);

16:20 Anisotropic β-Ga_2O_3 Based Direction-evolved Axon-multi-synapse Devices: Fabrication and Applications
Chao Wu (*Zhejiang Sci-Tech University*); *Daoyou Guo* (*Zhejiang Sci-Tech University*);

16:35 Invited Magnetron Sputtered Ultra-wide Bandgap Semiconductor GeO_2 Films towards 213-nm Solar Blind Photodetection
Xu Wang (*Ningbo University*); *Ziyu Li* (*Ningbo University*); *Chen Guo* (*Ningbo University*); *Shuxian Zang* (*Ningbo University*); *Xingyu Liu* (*Ningbo University*); *Yang Chen* (*Ningbo University*);

00:00 Solar-blind Enhanced Dual-band Ultraviolet Photodetector Based on Ga_2O_3/$(AlxGa_{1-x})_2O_3$/GaN Heterojunction
Yuefei Wang (*Northeast Normal University*); *Bingsheng Li* (*Northeast Normal University*); *Yichun Liu* (*Northeast Normal University*);

16:53 Robust Polycrystalline Ga_2O_3 Deep Ultraviolet Photodetectors for Extreme Environment Applications
Hong Huang (*University of Science and Technology of China*); *Bei Yao* (*University of Science and Technology of China*); *Haoran Yin* (*University of Science and Technology of China*); *Qingping Geng* (*University of Science and Technology of China*); *Xiaolong Zhao* (*University of Science and Technology of China*); *Xiaohu Hou* (*University of Science and Technology of China*); *Shibing Long* (*University of Science and Technology of China*);

00:00 Fermi-level Pinning-free Two-dimensional Hybrid MXene/β-Ga_2O_3 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*);

17:23 Research on Emerging Self-powered Gallium Oxide Photoelectrochemical Devices and Applications
Kai Chen (*Zhejiang Sci-Tech University*); *Daoyou Guo* (*Zhejiang Sci-Tech University*);

17:38 Invited Growth Temperature-regulated Phase Transition from α to ε of Metastable Ga_2O_3 Films by Mist Chemical Vapor Phase Deposition
Gaofeng Deng (*Ningbo Institute of Materials Technology and Engineering, CAS*);

17:41 Epitaxial Growth of α-$(AlGa)_2O_3$ 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*);

17:56 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*);

18:11 In Vitro Antibacterial Effect of Long-term Irradiation with 310 nm Ultraviolet Light-emitting Diode on Staphylococcus Aureus
Yuheng Chen (*Zhejiang Chinese Medical University*); *Jian Ye* (*Zhejiang University School of Medicine*);

Session 2P16a
Advanced Photonic Structures and Optical Effects: Light-matter Interactions, Resonances and Topology

Wednesday PM, July 29, 2026
Room 16 - CR 19
Organized 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
Domenico Paparo (*ISASI — Institute of Applied Sciences and Intelligent Systems*);

13:30 Light Localization in Correlated Disorder Materials
Nicoletta Granchi (*University of Florence*); *G. Calusi* (*University of Florence*); *K. Stokkereit* (*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*);

13:45 Highly Focused Laser Beams for Investigating Cosmic Dust and Detecting Sea Microplastics
Alessandro Magazzù (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*); *Silvie Bernatova* (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*); *Maria Grazia Donato* (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*); *Antonino Foti* (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*); *Maria Antonia Iatì* (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*); *Pietro G. Gucciardi* (*CNR IPCF, Istituto per i Processi Chimico-Fisici*); *Onofrio M. Marago* (*CNR-IPCF, Istituto per i Processi Chimico-Fisici*);

14:00 Mid-infrared All-dielectric Metasurfaces for Sensing Applications
Nunzio Timpanaro Pirrina (*Università di Palermo*); *Martina Mercurio* (*Sapienza Università di Roma*); *Vito Mocella* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Vincenzo Aglieri* (*Isituto Italiano di Tecnologia*); *Andrea Toma* (*Istituto Italiano di Tecnologia*); *Maria Cristina Larciprete* (*Sapienza Universita di Roma*); *Roberto Macaluso* (*University of Palermo*);

00:00 Engineering Mid-infrared Near-field Optical Effects Using Pixeled 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 Innnovativi 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* (*Universita degli Studi di Salerno*); *Menotti Ruvo* (); *Ivo Rendina* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Emanuela Esposito* (*Institute of Applied Sciences and Intelligent Systems (ISASI)*);

00:00 Ultrafast Charge Transfer in Confined Systems for the Control of Electronic and Quantum Properties
Davide Boschetto (*Institut Polytechnique de Paris*);

00:00 Whispering-gallery Mode Enhanced Chemical Sensing
Davide D'Ambrosio (*National Institute of Optics (CNR-INO)*); *Naveed Ahmed Chishti* (*Istituto Nazionale di Ottica (INO)*); *Benedetta Catalano* (*University of Naples Federico II*); *Giuseppe Pesce* (*University of Naples Federico II*); *Giulia Rusciano* (*Universita di Napoli "Federico II"*); *Antonio Sasso* (*University of Naples Federico II*); *Gianluca Gagliardi* (*CNR, Istituto Nazionale di Ottica (INO)*);

00:00 Silicon Photonics: Past, Present and Future
Bahram Jalali (*University of California at Los Angeles*);

00:00 Broadband BICs in Photonic Crystal Slabs: From Theory to Experimental Visualization
Karen Caicedo (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Fabrizio Sgrignuoli* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Adam M. Schwartzberg* (*Molecular Foundry, Lawrence Berkeley National Laboratory*); *Scott Duehy* (*Molecular Foundry, Lawrence Berkeley National Laboratory*); *Silvia Romano* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Gianluigi Zito* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Ivo Rendina* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*); *Vito Mocella* (*Institute of Applied Sciences & Intelligent Systems, National Research Council, CNR-ISASI*);

Session 2P16b
Nonlinear and Quantum Optics in an Optical Microcavity

Wednesday PM, July 29, 2026

Room 16 - CR 19

Organized by Wenjie Wan

16:00 Optical Control of Nonlinear Hall Photocurrents with Account of Skew Scattering in 2D Valley Semiconductors in the Vicinity of a Cyclotron Resonance
Valeriia N. Ivanova (*Guangdong Technion — Israel Institute of Technology*); *Vadim M. Kovalev* (*Siberian Branch of RAS*); *Ivan G. Savenko* (*Guangdong Technion-Israel Institute of Technology (GTIIT)*);

16:15 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*);

16:30 Cavity Optomechanical Frequency Conversion and Coherent Storage
Zhen Shen (*University of Science and Technology of China*);

16:45 Nonlinear Physics and Optics in Asymmetric Microcavities
Qi-Tao Cao (*Peking University*);

17:00 Integrated Nonlinear and Quantum Photonics in SiC-on-insulator Microresonators
Andrew Wing On Poon (*The Hong Kong University of Science and Technology*); *Jiantao Wang* (*The Hong Kong University of Science and Technology*); *Jiayang Li* (*The Hong Kong University of Science and Technology*); *Qianni Zhang* (*The Hong Kong University of Science and Technology*);

00:00 Compact Low-noise Dual Microcombs for High-precision Ranging and Spectroscopy Applications
Zhen-Da Xie (*Nanjing University*);

00:00 Integrated Lithium Niobate/Tantalate Nonlinear Photonic Devices
Juanjuan Lu (*Shanghai Tech University*);

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

Wednesday PM, July 29, 2026

Room 17 - CR 20

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

Chaired by Yuri Kivshar, Maxim V. Gorkunov

00:00 Invited Classical and Quantum Nonlinear Chirality with Quasi-bound States in the Continuum
Maxim V. Gorkunov (*National University of Science and Technology MISiS*);

00:00 Invited Compact Sources of Circularly Polarized Light Based on Chiral Photonic Crystal Slabs and Metamembranes
S. G. Tikhodeev (*Lomonosov Moscow State University*);

00:00 Resonant Symmetry Breaking: Perfect Helicity-preserving Reflection at Near-normal Incidence
Jan David Fischbach (*Karlsruhe Institute for Technology*); *Lukas Rebholz* (*Karlsruhe Institute of Technology*); *Nikita Ustimenko* (*Karlsruhe Institute of Technology (KIT)*); *M. Nyman* (*Karlsruhe Institute of Technology (KIT)*); *Carsten Rockstuhl* (*Karlsruhe Institute of Technology*); *Ivan Fernandez-Corbaton* (*Karlsruhe Institute of Technology*);

00:00 Invited Extending Chiral Metasurface Functionalities in the Momentum Space
Alexander Antonov (*Ludwig-Maximilians-University of Munich*); *Connor Heimig* (*Ludwig-Maximilians-University of Munich*); *Tao Jiang* (*Ludwig-Maximilians-University of Munich*); *Dmytro Gryb* (*Ludwig-Maximilians-University of Munich*); *Leonardo de S. Menezes* (*Ludwig Maximilian University of Munich*); *Maxim V. Gorkunov* (*National University of Science and Technology MISiS*); *Andreas Tittl* (*Ludwig-Maximilians-Universität München*);

00:00 Invited Chiral Guided-mode Resonances in Partially Etched Metasurfaces with Tailorable Quality Factors and Circular Dichroism
Zhancheng Li (*Nankai University*); *Shiwang Yu* (*Nankai University*); *Yuexin Sun* (*Nankai University*); *Shuqi Chen* (*Nankai University*);

00:00 Invited Low-symmetry Structures for Chiral Light Management
Denis G. Baranov (*Moscow Institute of Physics and Technology*);

00:00 Invited Robust Planar Chirality for Versatile Chiral Nonlinear Encoding
Meng-Xia Hu (*Jinan University*); *Xin Zhang* (*Jinan University*); *Pan Li* (*Jinan University*); *Xin Li* (*Jinan University*); *Xiangping Li* (*Jinan University*); *Zi-Lan Deng* (*Jinan University*);

00:00 Invited Exploiting Non-Hermitian Metasurfaces to Enhance Chirality Sensing
Ioannis Katsantonis (*Institute of Electronic Structure and Laser, Foundation for Research and Technology*); *Maria Kafesaki* (*Institute of Electronic Structure and Laser, Foundation for Research and Technology*);

00:00 Invited Quasi-bound States in the Continuum with Chiral Flatbands for Entangled Photon Generation
Alena V. Mamonova (*Shubnikov Institute of Crystallography, NRC "Kurchatov Institute"*); *Maxim V. Gorkunov* (*National University of Science and Technology MISiS*);

00:00 Organic Electrochemical Meta-displays
Keynote
Na Liu (*University of Stuttgart*);

00:00 Scaling the Functional Density of Resonant Metasurfaces
Invited
Chi Li (*Monash University*); *Stefan Alexander Maier* (*Monash University*); *Haoran Ren* (*Monash University*);

00:00 Chiral Resonators Based on Broadband All-dielectric
Invited Handedness Preserving Mirrors: Theory and Experiment
Sergey A. Dyakov (*Skolkovo Institute of Science and Technology*); *Natalia S. Salakhova* (*Skolkovo Institute of Science and Technology*); *A. Demenev* (*Osipyan Institute of Solid State Physics RAS*); *O. Klimenko* (*Skolkovo Institute of Science and Technology*); *V. D. Kulakovskii* (*Osipyan Institute of Solid State Physics RAS*); *V. Antonov* (*Skolkovo Institute of Science and Technology*); *Nikolay A. Gippius* (*Skolkovo Institute of Science and Technology*);

00:00 Plasmonically Induced Dichroism in Metal-
Invited superconductor Nanowire Detector Arrays for On-chip Quantum State Tomography
Pierre Brosseau (*Nanyang Technological University*); *Giorgio Adamo* (*Nanyang Technological University*); *Jiawei Wang* (*Nanyang Technological University*); *Ruixiang Guo* (*Nanyang Technological University*); *Anton N. Vetlugin* (*Nanyang Technological University*); *Cesare Soci* (*Nanyang Technological University*);

00:00 Asymmetry-engineered Metasurfaces: A Platform for
Invited Advanced Light-field Control and Sensing
Joel K. W. Yang (*Singapore University of Technology and Design*);

00:00 All-to-circular Nonlinear Polarization Conversion in Chiral Resonant Metasurfaces
Dmitrii Gromyko (*Singapore University of Technology and Design (SUTD)*); *Cheng-Wei Qiu* (*National University of Singapore*); *Lin Wu* (*Singapore University of Technology and Design (SUTD)*);

00:00 Circularly Polarized Coherent Thermal Emission with Temperature-driven Helicity Reversal and Wavelength Tunability
Kaili Sun (*Shandong Normal Univeristy*); *Zhanghua Han* (*Shandong Normal University*);

Session 2P18
Recent Developments of Diffractive Optical Sensors Using Machine Learning 3

Wednesday PM, July 29, 2026

Room 18 - VIP R8

Organized by Pavel A. Khorin

Chaired by Pavel A. Khorin

13:00 Ultrafast Holographic Fourier-Transform Infrared Mi-
Invited croscopy for Cancer Studies
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
Invited Extended Depth-of-field Imaging
Yuzhe Du (*Tsinghua University*); *Liangcai Cao* (*Tsinghua University*);

13:40 Transformation of Confined-space Photonics into
Invited Industrial-level Applications
Qiaoliang Bao (*University of Shanghai for Science and Technology*);

14:00 Glass Fiber Microphone for Acoustic Sensing
Invited
Xiaobei Zhang (*Shanghai University*);

14:20 Forward and Inverse Design of Displacement-sensitive
Invited Metasurface for Arbitrary Intensity-displacement Responses
Qianbo Lu (*Northwestern Polytechnical University*);

14:40 Computer Holography via an Ultra-generalized Learning
Invited Framework
Hao Zhang (*Henan University of Science and Technology*);

15:00 A Laguerre-Gaussian Optical Vortex with an Enlarged Dark Region and the Use of Deep Learning Technologies to Determine Its Parameters
Ilya V. Sobolev (*Samara National Research University*); *Elena Sergeevna Kozlova* (*Samara National Research University & NRC "Kurchatov Institute"*); *Vladislav Dmitrievich Zaitsev* (*Samara National Research University*);

15:03 Nanoporous Metals as Versatile Optical Metasurfaces
Invited
Denis Garoli (*Istituto Italiano di Tecnologia*);

00:00 AI-Informed Optics at the Diffraction Limit
Invited
Dmitry V. Dylov (*Skolkovo Institute of Science and Technology*);

00:00 MetaMizer: An AI Based Inverse Design Pipeline for Di-
Invited electric Metasurface
P. Paithankar (*Indian Institute of Technology Kharagpur*); *P. P. Chakrabarti* (*Indian Institute of Technology Kharagpur*); *Shailendra Kumar Varshney* (*Indian Institute of Technology Kharagpur*);

00:00 Invited The Mathematical-physics of Scalar Structured Optical Beams
Sabino Chavez-Cerda (*Instituto Nacional de Astrofisica*);

00:00 AI-assisted Broadband Imaging with Metasurfaces
Yaoguang Ma (*Zhejiang University*);

00:00 Mid-infrared Photodetector Array Integrated with Plasmonic Filters for Multispectral Imaging
Shiyu Yang (*Shanghai Jiao Tong University*); *Yaping Dan* (*Shanghai Jiao Tong University*);

00:00 Cold-programmable Photonic Crystals for Reconfigurable Optical Sensing
Matin S. Ashurov (*Westlake University*); *Pavlos G. Savvidis* (*Westlake University*);

00:00 Invited AI-powered Refractive Index Retrieval with All-dielectric Colour Metasurfaces
Trevon Badloe (*Pohang University of Science and Technology (POSTECH)*);

00:00 Invited Machine-learning-assisted Diffractive Metasurface Sensor for Quantum-enhanced Detection of SARS-CoV-2
Basudev Nag Chowdhury (*IIT Kharagpur*); *Santanab Majumdar* (*IIT Kharagpur*); *Tarun Kanti Bhattacahryya* (*IIT Kharagpur*); *Pooja Lahiri* (*IIT Kharagpur*); *Basudev Lahiri* (*IIT Kharagpur*);

00:00 Invited Optical Sensing Enabled by Laser-printed Plasmonic Metasurfaces
Aleksandr A. Kuchmizhak (*Institute of Automation and Control Processes, Far Eastern Branch, Russian Academy of Science*);

00:00 Invited Resonant Metasurface Chiroptical Sensing: Overcoming Fidelity and Noise Limits
Ting Mei (*Northwestern Polytechnical University*); *Fengyang Jia* (*Northwestern Polytechnical University*); *Qiwei Miao* (*Northwestern Polytechnical University*);

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 Invited Non-Hermitian Theory for Optical Trapping and Binding
Jack Ng (*Southern University of Science and Technology*);

13:20 Invited Subspace-protected Topological Phases
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 Kiorpelidis (*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 Invited Multi-order Exceptional Points and Exponential Sensitivity in Non-Hermitian Photonic Lattices
Konstantinos G. Makris (*Institute of Electronic Structure and Laser — FORTH*);

00:00 Asymmetric Third Harmonic Generation in Silicon Metasurfaces
Aleksandr I. Musorin (*Shenzhen MSU-BIT University*); *A. A. Nazarenko* (*Shenzhen MSU-BIT University*); *Alexander S. Shorokhov* (*Lomonosov Moscow State University*); *Daria A. Smirnova* (*Australian National University*); *Andrey A. Fedyanin* (*Lomonosov Moscow State University*);

00:00 Invited Investigating the Topology of Exceptional Points with Photons
Kunkun Wang (*Anhui University*);

Session 2P19b
Topological Nanophotonics 1

Wednesday PM, July 29, 2026

Room 19 - CR 27

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

16:00 Invited Moiré Topological Quasi-particles of Light at Nanoscale
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
Invited Communications
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-
Invited index Media
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*);

Session 2P20a
Metamaterials in Multi-physics

Wednesday PM, July 29, 2026

Room 20 - CR 28

Organized by Huanyang Chen, Yadong Xu

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 (*Soochow 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 Ma-
Invited terials
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*);

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*);

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

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

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

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

17:00 Dispersion-driven Front-door Protection in Phased Array Based on Reconfigurable Spoof Surface Plasmon Polaritons
Ling Yun Niu (*Xidian University*); *Ling Yu Wang* (*Xidian University*); *Long Li* (*Xidian University*);

17:15 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*);

17:30 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*);

17:45 Invited Beyond Transition Structures: ESPPs for Designing Ultracompact Waveguide Devices
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*);

18:05 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*);

18:20 A Broadband Nonmagnetic Spoof Plasmonic Circulator Based on Parametric Amplification
Yue Cen (*Southeast University*); *Jingjing Zhang* (*Southeast University*);

00:00 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

00:00 Invited High-power Linearly Polarized Supercontinuum Source
Jiaxin Song (*National University of Defense Technology*); *Bo Li* (*National University of Defense Technology*); *Shengping Chen* (*National University of Defense Technology*);

00:00 Invited 2 μm High-power Narrow-linewidth and Single-frequency Fiber Laser
Qilai Zhao (*South China University of Technology*); *Yuxin Sun* (*South China University of Technology*); *Shanhui Xu* (*South China University of Technology*);

00:00 Invited High Power and High Brightness Fiber Lasers in 950 nm Band
Tianfu Yao (*National University of Defense Technology*);

00:00 Invited Experimental Analysis of Transverse Mode Instability Characteristics under Different Linewidths
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*); *Qiuhui 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*);

14:20 Invited Data-driven Fiber Mode Decomposition
Min Jiang (*National University of Defense Technology Test Center*); *Yi An* (*National University of Defense Technology Test Center*); *Jun Li* (*National University of Defense Technology*);

00:00 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*);

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*); *Duanduan Wu* (*Ningbo University*); *Peiqing Zhang* (*Ningbo University*); *Shixun Dai* (*Ningbo University*);

16:15 Invited Femtosecond Laser Inscribed Compact Fabry-Pérot Interferometers and Their Sensing Application
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*);

00:00 Invited Inverse Design of Discrete Raman Amplifiers Using an Invertible Neural Network for Ultra-wideband Optical Transmission Based on Hollow Core Fibers
Zheyu Wu (*Beijing Institute of Technology*); *Ran Gao* (*Beijing Institute of Technology*); *Mingrui Lin* (*Beijing Institute of Technology*);

00:00 Invited High-sensitivity Bio-inspired Optical Fiber Sensing Technology and Applications
Qizhen Sun (*Huazhong University of Science and Technology*);

00:00 Invited Advanced Chalcogenide Glasses and Their Optoelectronic Sensing Applications
Shiliang Kang (*Ningbo University*); *Shixun Dai* (*Ningbo University*); *Changgui Lin* (*Ningbo University*);

00:00 Invited Flexible Polymer Optical Fiber for Non-invasive Physiological Monitoring
Rui Min (*Beijing Normal University*);

00:00 Invited Science and Application of Random Lasers in Polymer Fiber and Liquid Crystal System
Zhijia Hu (*Anhui University*);

Session 2P22a
Poster Session for Best Student Presentation Awards Competition - Part 4

Wednesday PM, July 29, 2026

Poster Area

Session 2P22b
Poster Session 5

Wednesday PM, July 29, 2026

14:00 PM - 18:00 PM

Poster Area

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

00:00 Development of W-band Relativistic Gyrotron with Subgigawatt Pulsed Power
Vladislav Yur'evich Zaslavsky (*Institute of Applied Physics, Russian Academy of Sciences*); *Nikolai Yu. Peskov* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Ilya V. Zheleznov* (*Institute of Applied Physics, RAS*); *Ksenia A. Leshcheva* (*Institute of Applied Physics, RAS*); *Michael N. Vilkov* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Vladimir Nikolaevich Manuilov* (*Institute of Applied Physics, RAS*); *Andrey V. Arzhannikov* (*Budker Institute of Nuclear Physics RAS*); *D. A. Nikiforov* (*Budker Institute of Nuclear Physics, Russian Academy of Sciences*); *A. E. Levichev* (*Budker Institute of Nuclear Physics, Russian Academy of Sciences*); *Stanislav L. Sinitsky* (*Budker Institute of Nuclear Physics Russian Academy of Sciences*);

00:00 A Filtering Class F Power Amplifier Based on 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*);

00:00 Using Sectioned Slow-wave Structures Formed by 2D-periodic and 1D-periodic Corrugations to Enhance Output Power and Stability of Single-mode Generation in Cherenkov Masers
Nikolai Yu. Peskov (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Andrey V. Arzhannikov* (*Budker Institute of Nuclear Physics RAS*); *Naum Samuilovich Ginzburg* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Petr V. Kalinin* (*Budker Institute of Nuclear Physics RAS*); *Sergey A. Kuznetsov* (*Budker Institute of Nuclear Physics Russian Academy of Sciences*); *Denis A. Samtsov* (*Budker Institute of Nuclear Physics RAS*); *Evgeny S. Sandalov* (*Budker Institute of Nuclear Physics RAS*); *Anastasia A. Savilova* (*Institute of Applied Physics, Russian Academy of Sciences*); *Alexander Sergeevich Sergeev* (*A.V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Stanislav L. Sinitsky* (*Budker Institute of Nuclear Physics Russian Academy of Sciences*); *Vasily D. Stepanov* (*Budker Institute of Nuclear Physics RAS*); *Vladislav Yu. Zaslavsky* (*Institute of Applied Physics, RAS*);

00:00 Channel Capacity Calculation in Sub-THz Bands and the Impact of Atmospheric Turbulence
Ilya V. Lesnov (*Institute of Applied Physics of the RAS*); *Maria V. Efimova* (*Institute of Applied Physics of the RAS*);

00:00 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*);

00:00 A Dual-branch Frequency-spatial Network for Polarimetric SAR Image Classification
Liangliang Han (*Wuhan Institute of Technology*); *Lei Wang* (*Wuhan Institute of Technology*); *Wenqiang Hao* (*Wuhan Institute of Technology*); *Rong Gui* (*Central South University*); *Shenghui Zhu* (*Wuhan Institute of Technology*);

00:00 Vehicles and Corner Reflector Discrimination by Fusing Multi-dimensional Physical Features of HRRP
Yanbo Fan (*National Key Laboratory of Scattering and Radiation*); *Ruixin Lai* (*National Key Laboratory of Scattering and Radiation*); *Dandan Gu* (*Science and Technology on Electromagnetic Scattering Laboratory*); *Yi Liao* (*National Key Laboratory of Scattering and Radiation*);

00:00 Edge-side Lightweight Modulation Recognition Network Based on Joint Time-frequency Domain and Global Average Pooling
Jun Chen (*Hainan University*); *Zhenjia Chen* (*Hainan University*); *Jie Ding* (*Hainan University*);

00:00 Nearshore Bathymetry Inversion Based on Swell Characteristics Extracted from SAR Data
Lijie Diao (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Wenjia Zhao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Yawei Zhao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Jinsong Chong* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

00:00 Mathematical and Experimental Validation of Zero Substitution in the Bifocusing Method with Incomplete Data
Taeyoung Ha (*National Institute for Mathematical Sciences*); *Won-Kwang Park* (*Kookmin University*);

00:00 Lithium Battery Parameter Identification Optimization Based on the Red Billed Blue Magpie Optimization Algorithm
Rongyan Liu (*Southwest University of Science and Technology*); *Chunxi Jiang* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Yonghao Lu* (*Southwest University of Science and Technology*);

00:00 Research on Inductive-type Marx Pulse Generator
Yuheng Gao (*Southwest University of Science and Technology*); *Li Wu* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Shunqiang Wan* (*Southwest University of Science and Technology*); *Haoyu Zhang* (*Southwest University of Science and Technology*); *Jingxin Wei* (*Southwest University of Science and Technology*);

00:00 Phase-shift Control Strategy for DAB Converters Applied in Solid-state Transformers
Qifeng Wu (*Southwest University of Science and Technology*); *Li Wu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Cheng Chen* (*Southwest University of Science and Technology*); *Haoyu Zhang* (*Southwest University of Science and Technology*); *Liang Luo* (*Southwest University of Science and Technology*); *Hongqiao Chen* (*Southwest University of Science and Technology*);

00:00 Research on Long-distance Carrier Communication for Single-core Cables
Jingxin Wei (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Jie Deng* (*Southwest University of Science and Technology*); *Zipeng Zhang* (*Southwest University of Science and Technology*); *Junfeng Luo* (*Southwest University of Science and Technology*);

00:00 A High-stability, Ultra-low-power Op-amp-less Bandgap Reference with Piecewise Temperature Compensation
Huijia Li (*Southwest Jiaotong University*); *Quanyuan Feng* (*Southwest Jiaotong University*); *Liangyu Cao* (*Southwest Jiaotong University*);

00:00 A Collaborative Mitigation Method for Single-event Transients in Flash FPGAs
Jin Long Ma (*Nanjing University of Aeronautics and Astronautics*); *Xin Chen* (*Nanjing University of Aeronautics and Astronautics*); *Zhenji Cao* (*Tongji University*); *Mei Song Tong* (*Tongji University*); *Zong Guang Yu* (*The 58th Institute of China Electronics Technology Group Corporation*); *Dai-Yin Zhu* (*Nanjing University of Aeronautics and Astronautics*);

00:00 Derivation and Numerical Validation of a 2D Cylindrical Angular-spectrum Forward Operator for Microwave-induced Thermoacoustic Imaging
Xin Shang (*Southwest University of Science and Technology*); *Shuangli Liu* (*Southwest University of Science and Technology*); *Fei Tang* (*Southwest University of Science and Technology*);

00:00 Energy-aware Multi-robot Scheduling via Combinatorial Auction and Standby Mechanism
Kunle Wang (*Southwest University of Science and Technology*); *Liang Luo* (*Southwest University of Science and Technology*); *Zhenhua Quan* (*Southwest University of Science and Technology*); *Li Xie* (*Southwest University of Science and Technology*);

00:00 A Fast Prediction Method for Electromagnetic Parameters of Absorbing Honeycomb Structures Based on Colecole Dispersion Model and Equivalent Medium Theory
Xiaoyi Fu (*University of Electronic Science and Technology of China*); *Xunwang Dang* (*National Key Laboratory of Scattering and Radiation*); *Mingjiang Gou* (*National Key Laboratory of Scattering and Radiation*); *Zhaoguo Hou* (*Science and Technology on Electromagnetic Scattering Laboratory*); *Xiao Long Weng* (*University of Electronic Science and Technology of China*); *Wei Luo* (*University of Electronic Science and Technology of China*); *Hongcheng Yin* (*National Key Laboratory of Scattering and Radiation*); *Xuan Guo* (*Beijing Institute of Remote Sensing Information*);

00:00 Study of the Effect of Magnetoelectric Energy Generation by Harvester
Vasilii A. Misilin (*Yaroslav-the-Wise Novgorod State University*); *Alena R. Petrova* (*Novgorod State University*); *M. M. Karpov* (*Novgorod State University*); *Roman V. Petrov* (*Novgorod State University*);

00:00 Nonideality Compensation for THz SC-FDE Systems Based on a BiTCN-DD-MLP Equalizer
Li Da (*University of Electronic Science and Technology of China*); *Lin Huang* (*University of Electronic Science and Technology of China*);

00:00 Comparison of In-house Fabricated Microsphere WGMRs for Kerr OFC Generation
Dmitrijs Prigunovs (*Riga Technical University*); *Denis Zurikovs* (*Riga Technical University*); *Ints Murans* (*Riga Technical University*); *Dilan Ortiz* (*Riga Technical University*); *Arvids Sedulis* (*Riga Technical University*); *Janis Alnis* (*University of Latvia*); *Rihards Murnieks* (*Riga Technical University*); *Janis Braunfelds* (*Riga Technical University*); *Toms Salgals* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 High Responsivity, Ultra-flexible, Self-driven Solar-blind Fibrous Photoelectrochemical Detector for Seawater Antibiotic Detection
Gang Wu (*Zhejiang Sci-Tech University*); *Daoyou Guo* (*Zhejiang Sci-Tech University*);

00:00 Peak Power Enhancement in Phased Arrays Using Beatwave Excitation
Jie Peng (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Dongping Gao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Quanju Shi* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Dengpan Chang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Jiawei Wang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Lu Tian* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

00:00 Research on G_T Performance Optimization and Front-end IC Design for Ku-band Satellite Communication Receivers
Xiuqi Lai (*Shanghai University*);

00:00 Spatio-temporal Theory of Zigzag Gyro-BWO: Transition to Operation at the Second Cyclotron Harmonic
Ekaterina M. Novak (*A.V. Gaponov-Grekhov Institute of Applied Physics, RAS*); *Sergey V. Samsonov* (*A.V. Gaponov-Grekhov Institute of Applied Physics, Russian Academy of Sciences*); *Andrei V. Savilov* (*A.V. Gaponov-Grekhov Institute of Applied Physics, RAS*);

00:00 Rapid Surrogate Model Construction for RCS Prediction based on Space Mapping and ELM
Tian-Xu Yan (*Shanghai Institute of Mechanical and Electrical Engineering*); *Jiayi Yang* (*Shanghai Institute of Mechanical and Electrical Engineering*); *Guotao Jiang* (*Shanghai Institute of Mechanical and Electrical Engineering*); *Zeng Yang* (*National Key Laboratory of Scattering and Radiation*); *Gewen Yang* (*Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)*); *Kaizhi Ruan* (*Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)*);

00:00 3D NMR Forward Modeling Using Finite Element Method with External Field Sources
Shuo Hang Sun (*Chang'an University*); *Zhipeng Qi* (*Chang'an University*); *Jiawen Ma* (*Chang'an University*); *Junshuo Xing* (*Chang'an University*);

00:00 RF Signal Detection Method Based on I/Q Data Differential Absolute Sum Algorithm
Hongpeng Chen (*Hainan University*); *Zhenjia Chen* (*Hainan University*); *Xiao Zhao* (*Hainan University*); *Zhonghao Huang* (*Hainan University*); *Wanchao Li* (*Radio Regulatory Authority Hainan Provincial Industry and Information Technology Department*);

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*);

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

00:00 Development of a New Global-scale High Spatiotemporal Resolution Precipitation Monitoring System for Real-time Condition
Dabin Ji (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Husi Letu* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Jiancheng Shi* (*National Space Science Center, Chinese Academy of Sciences*);

00:00 A Systematic Benchmark of Factor-method Pairings for Passive Microwave Soil Moisture Downscaling Using Two Dense In Situ Networks
Jingyao Zheng (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Tianjie Zhao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Nemesio Rodriguez-Fernandez* (*CESBIO*);

00:00 Inter-calibration of the FY-3 Microwave Radiation Imager Using a Stokes Parameter Stretching Method
Yu Bai (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Tianjie Zhao* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Zhiqing Peng* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Ping Tang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Jiancheng Shi* (*National Space Science Center, Chinese Academy of Sciences*);

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

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 Hailuogou 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*); *Kun-Shan 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*);

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

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

8:40 Invited Practical Challenges in Inverse Scattering for RI Reconstruction 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 Invited Computational Imaging in Complex Media
Wen Chen (*The Hong Kong Polytechnic University*);

9:50 Invited Computational Holography with Randomness
Ryoichi Horisaki (*The University of Tokyo*);

10:30 Assessment of Respiratory Air-volume Variation in the Human Thorax Using First-arrival Ultrasound and Electrical Impedance Tomography
Ziqi Li (*Tsinghua University*); *Tong Zhang* (*Tsinghua University*); *Maokun Li* (*Tsinghua University*); *Fan Yang* (*Tsinghua University*); *Shenheng Xu* (*Tsinghua University*);

10:45 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*);

11:00 Scattered Computational Adaptive Optics (sCAO) for Anisotropic PSF Estimation in Thick Tissues
Farhad Niknam (*UiT The Arctic University of Norway*); *Krishna Agarwal* (*UiT The Arctic University of Norway*);

11:15 Inverse Electromagnetic Scattering — Arc of Translation from Microwave Regime to Optical Domain Microscopy
Krishna Agarwal (*UiT The Arctic University of Norway*);

11:30 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*);

11:45 Invited Physics-aware Deep Reconstruction for Robust Artifact 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

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 Invited Footprint-constrained Building-wise Phase Unwrapping for Urban 3D Reconstruction Using Multi-temporal InSAR
Lei Zhang (*Tongji University*);

00:00 Urban Deformation Monitoring Using Polarimetric Interferometric SAR with Sentinel-1 Data
Feng Zhao (*China University of Mining and Technology*); *Kesheng Huang* (*China University of Mining and Technology*);

00:00 A Low-cost MIMO-SAR system for Dynamic Deformation Monitoring of Bridges in Greater Bay Area
Lin He (*Shenzhen University*); *Bochen Zhang* (*Shenzhen University*);

Session 3A3b
SAR/PolSAR Image Processing with Advanced Technologies

Thursday AM, July 30, 2026

Room 3 - CR 3

Organized 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
Jiyuan Liu (*National University of Defense Technology*); *Jiaxiang Yang* (*National University of Defense Technology*); *Wei Wang* (*National University of Defense Technology*); *Tao Zhang* (*Shanghai Jiao Tong University*); *Hongqi Fan* (*National University of Defense Technology*);

11:15 Physics-aware Structure-guided Soft Gating for Robust Optical-SAR Image Matching
Qichen Zhao (*National University of Defense Technology*); *Jiaqi Li* (*National University of Defense Technology*); *Yaobing Xiang* (*National University of Defense Technology*); *Lin Lei* (*National University of Defense Technology*);

11:15 VL-SAE: Vision-language Guided Semantic Autoencoder for Zero-shot SAR Target Recognition
Jiajin Li (*National University of Defence Technology*); *Zekang Fan* (*National University of Defence Technology*); *Lingjun Zhao* (*National University of Defense Technology*); *Siqian Zhang* (*National University of Defense Technology*);

00:00 Invited Polarimetry-inspired Self-supervised PolSAR Representation Learning
Haixia Bi (*Xi'an Jiaotong University*);

00:00 Few-Shot SAR Target Recognition Using Scattering Center Graph Autoencoders and Physics-Guided Attention
Manling Jiang ();

Session 3A4a
Recent Advances in Computational Electromagnetics: Methods and Applications

Thursday AM, July 30, 2026

Room 4 - CR 8

Organized by Kewen He, Kazuya Kobayashi

Chaired by Kewen He, Kazuya Kobayashi

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 Invited Spectral Integral Method for Multilayered Concentric Magneto-dielectric-metallic Spheres and Its Applications
Zhen Guan (*Great Bay University*); *Fa-Lin Liu* (*University of Science and Technology of China*); *Feng Han* (*Great Bay University*);

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*);

Session 3A4b
AI for Electromagnetics: Inverse Scattering and Inverse Design

Thursday AM, July 30, 2026

Room 4 - CR 8

Organized by Zhun Wei, Kuiwen Xu

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
Advanced Optical and Digital Signal Processing in Optical Communication Networks 2

Thursday AM, July 30, 2026

Room 5 - CR 9

Organized by Feng Wen, Mingming Tan, Tianhua Xu

Chaired by Feng Wen

8:00 Invited — Recent Progress in Mid-wave Infrared Free Space Optical Communications
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*);

8:20 Invited — Low-complex Crosstalk Compensation and Parameter Monitoring for Mode-division Multiplexing Systems
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*);

8:40 Invited — High-performance Quantum Key Distribution Network with Integrated Photonics
Fang-Xiang Wang (*University of Science and Technology of China*); *Guo-Wei Zhang* (*University of Science and Technology of China*); *Sheng-Teng Zheng* (*University of Science and Technology of China*); *Wei Chen* (*University of Science and Technology of China*);

00:00 Invited — Integrated Sensing and Communication System with High Spatial Resolution
Zhiyong Zhao (*Huazhong University of Science and Technology (HUST)*);

00:00 Invited — Feasibility of High Radix Magneto-optical Switch
Jinlong Wei (*Peng Cheng Laboratory*);

00:00 Invited — Advanced SMART Techniques for the Hollow-core Fiber Submarine ISAC
Lin Sun (*Soochow University*);

Session 3A5b
Microwave and Millimeter Wave Circuits and Devices, CAD

Thursday AM, July 30, 2026

Room 5 - CR 9

Organized by Debendra Kumar Panda

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*); *Afesomeh 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*);

00:00 — Design and Modeling of an Electromagnetic Power Distribution Network for an Array of Eight Slot Antennas
Julio Cesar Lopez Flores (*Instituto Politécnico Nacional*); *Jorge Roberto Sosa-Pedroza* (*Instituto Politecnico Nacional*); *Fabiola Martínez-Zúñiga* (*Instituto Politecnico Nacional*);

Session 3A6a
Multiphysics Integrity Analysis and Simulation of Integrated Microsystems

Thursday AM, July 30, 2026

Room 6 - CR 10

Organized by Wen-Sheng Zhao, Hanzhi Ma

Chaired by Wen-Sheng Zhao, Hanzhi Ma

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 2D Material-based Optoelectronic Devices Using a High-order Finite Element Method
Yan-Nan Xu (*Hangzhou Dianzi University*); *Jia-Hui Zhou* (*Hangzhou Dianzi University*); *Qi Qiang Liu* (*Hangzhou Dianzi University*); *Wen-Sheng Zhao* (*Hangzhou Dianzi University*);

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*); *Wensheng Zhao* (*Hangzhou Dianzi University*);

00:00 A General Framework for Electromagnetic Modelling
Invited Based on Equivalence Theorem
Shunchuan Yang (*Beihang University*);

00:00 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*);

00:00 Measurement-driven Multiphysics Analysis of Low-frequency Magnetic Interference in Integrated Microsystems
Han Han (*Zhejiang University*); *Da Li* (*Zhejiang University*);

Session 3A6b
Acoustic-actuated Multiferroic Resonators and Emerging Applications

Thursday AM, July 30, 2026

Room 6 - CR 10

Organized by Lingnan Song, Liang Hu

00:00 Study of Spatial Field Distribution and Conversion Efficiency in Self-mixing Multiferroic Antennas for Fully Passive Bio-sensing
Qiyuan Lu (*Beihang University*); *S. Fu* (*Beihang University*); *Lingnan Song* (*Beihang University*); *Donglin Su* (*Beihang University*);

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 Re-
Invited configurable Coherent Perfect Absorption
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*);

00:00 Reconfigurable Terahertz Surface Plasmon Wavefront Control Using GST Metasurfaces
Quan Li (*Tianjin University of Technology and Education*); *Guanghong Xu* (*Tianjin University of Technology and Education*); *Yisheng Dong* (*Tianjin University*); *Quan Xu* (*Tianjin University*); *Shuang Wang* (*Tianjin University*); *Xueqian Zhang* (*Tianjin University*);

00:00 Active Metasurfaces for THz All-optical Computational Spectrometer and Single-pixel Imaging
Invited
Longqing Cong (*Southern University of Science and Technology*);

00:00 Optically Programmable and Ultrafast Terahertz Manipulation via Nonlinear Metasurfaces
Invited
Xueqian Zhang (*Tianjin University*); *Li Niu* (*Tianjin University*); *Xi Feng* (*Tianjin University*); *Qingwei Wang* (*Tianjin University*); *Haidi Qiu* (*Tianjin University*); *Quan Xu* (*Tianjin University*); *Jiaguang Han* (*Tianjin University*);

00:00 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*);

00:00 Programmable and Intelligent VO_2-based Terahertz Metasurfaces for Adaptive Beam Steering
Invited
Jingbo Wu (*Nanjing University*);

00:00 Reconfigurable Terahertz Multifunctional Metasurface Devices
Invited
Quanlong Yang (*Central South University*); *Lingli Ba* (*Central South University*); *Junliang Yang* (*Central South University*);

Session 3A9
Functional Acoustic Metamatierials 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 Research on the Dimensional Reduction Mapping of Type-II Higher-order Topological Insulators
Yuan Liu (*Southeast University*); *Haiyan Fan* (*Southeast University*); *Hui Zhang* (*Southeast University*);

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*);

10:30 Prediction and Reinforcement of Fracture-prone Regions in Disordered Mechanical Metamaterials
Invited
Baizhan Xia (*Hunan University*);

10:50 Trapped State at a Dislocation in Scaled-coupling Structure
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*);

00:00 Multibranched Elastic Bound States in the Continuum of Lamb Waveguide
Shuowei An (*Northwestern Polytechnical University*);

00:00 Four-channel Amplitude-phase-janus-encrypted Acoustic Meta-hologram
Haohan Zeng (*Southeast University*); *Zhenyu He* (*Southeast University*); *Tianxiang Zhang* (*Southeast University*); *Xiao Guo* (*Southeast University*); *Xinghao Hu* (*Southeast University*); *Youyu Mo* (*Southeast University*); *Tingting Li* (*Southeast University*); *Feilong Mao* (*Southeast University*); *Haiyan Fan* (*Southeast University*); *Xudong Fan* (*Nanjing University of Science and Technology*); *Wei Wei Kan* (*Nanjing University*); *Yifan Zhu* (*Southeast University*); *Hui Zhang* (*Southeast University*); *Guodong Yin* (*Southeast University*); *Badreddine Assouar* (*Université de Lorraine*);

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 Invited Structureless Excitation and Dynamic Manipulation of Holographic Optical Surface-wave Tweezers
Changjun Min (*Shenzhen University*);

8:20 Invited Optical Manipulations: from Non-Hermitian Physics to Multi-degree-of-freedom Control
Xiao Li (*The Hong Kong University of Science and Technology*);

00:00 Invited High-throughput Flexible On-chip Optical Tweezers
Hongbao Xin (*Jinan University*);

9:00 Invited Optical Forces and Torques in Unconventional Systems: From Moving Media to Polarization Singularities and Exceptional Points
Shubo Wang (*City University of Hong Kong*);

9:20 Invited Probing Non-Hermitian Eigenmodal Structures from Trajectory-resolved Measurements in Levitodynamics
Han Cai (*Zhejiang University*);

9:40 Invited Exploiting Optical Lateral Forces in Optical Tweezers
Yuzhi Shi (*Tongji University (TJU)*);

10:30 Invited Ice-interface Optothermal Tweezers for Programmable Cryogenic Assembly of Heterogeneous Micro- and Nanostructures
Jiajie Chen (*Shenzhen University*);

00:00 Optomechanical Manipulation of Resonant Nanoparticles by Directional Excitation of Surface Plasmon Polaritons
Semyon Sergeevich Borodulin (*ITMO University*); *Natalia Kostina* (*ITMO University Lomonosov*); *Mihail I. Petrov* (*ITMO University*);

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

11:20 Generalized Electromagnetic Stress Tensor Theory Based on Microscopic-macroscopic Correlation: Beyond Traditional Forms
Liyong Cui (*Changsha University of Science & Technology*); *Neng Wang* (*Shenzhen University*);

11:35 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*);

11:50 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*);

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 Invited Tunable Bound States in the Continuum Beyond Lattice Design
Yan Meng (*Southern University of Science and Technology*); *Qing-An Tu* (*Southern University of Science and Technology*); *Maohua Gong* (*Southern University of Science and Technology*); *Zhen Gao* (*Southern University of Science and Technology*);

8:20 Invited Chiral Emission with Bound States in the Continuum on the Verge of the Light Cone
Dmitrii Gromyko (*Singapore University of Technology and Design (SUTD)*); *Cheng-Wei Qiu* (*National University of Singapore*); *Kirill L. Koshelev* (*Australian National University*); *Lin Wu* (*Singapore University of Technology and Design (SUTD)*);

8:40 Invited Dispersionless Photonic and Polaritonic Flatbands with Conserved Q Factors
Xia Zhang (*Northeastern University*);

9:00 Invited Optically Tuneable Nonlinear Resonant Metasurfaces and Nanostructures
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"*);

9:50 Invited Engineering Dispersion in Meta-lenses: From Broadband Achromatic Imaging to Spectral-selective Focusing
Mu Ku Chen (*City University of Hong Kong*);

10:30 Invited Momentum-mismatch-driven Bound States in the Continuum in Meta-gratings
Feng Wu (*Guangdong Polytechnic Normal University*); *Shuyuan Xiao* (*Nanchang University*);

10:50 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*);

11:05 Non-Hermitian Control in Nonlocal BIC Metasurfaces and Its Applications
Kenren Wang (*Sichuan University*); *Wei Wang* (*Sichuan University*);

00:00 Invited High-efficiency Active Membrane Metasurfaces with Extended Kerker's Condition
Longqing Cong (*Southern University of Science and Technology*);

00:00 Goos-Hänchen Shift of Symmetric-broken Meta-grating with Bound States in the Continuum
Ma Luo (*Guangdong Polytechnic Normal University*);

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 Invited Resonance Fluorescence of a Strongly Driven Two-level System with Dynamically Modulated Frequency
Shuo Sun (*University of Colorado Boulder*);

8:20 Invited Hybrid Integrated Quantum Photonic Devices and Chips
Jiaxiang Zhang (*Shanghai Institute of Microsystems and Information Technology (SIMIT), Chinese Academy of Sciences*);

8:40 Invited Spin Generation in Coupled Emitter-nanostructure Systems
Mark Sadgrove (*Tokyo University of Science*);

9:00 Invited Ultrafast Electron and Spin Dynamics in Perovskite Nanocrystals
Linjie Dai (*Peking University*);

9:20 Invited Efficient Two-photon Emission from a Quantum Dot
Bang Wu (*Beijing Academy of Quantum Information Sciences*);

9:40 Invited Aromatic Molecular Emitters 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*);

10:30 Invited Static Hybrid Quantum Nodes for Deterministic On-chip Quantum Information Processing
Zhaohua Tian (*Zhejiang Sci-Tech University*);

10:50 Invited Scanning-exciton Optical Nanoscopy Using a Single Quantum Dot
Zhiyuan Wang (*Taiyuan University of Technology*);

11:10 On-chip Quantum Interference of Indistinguishable Single Photons from Integrated Independent Molecules
Tailin Huang (*Huazhong University of Science and Technology*); *Miaomiao Xu* (*Huazhong University of Science and Technology*); *Wei Jin* (*Huazhong University of Science and Technology*); *Weixi Liu* (*Zhejiang University*); *Yixuan Chi* (*Huazhong University of Science and Technology*); *Jianwei Tang* (*Huazhong University of Science and Technology*); *Peng-Long Ren* (*Huazhong University of Science and Technology*); *Shangming Wei* (*Huazhong University of Science and Technology*); *Zhengxuan Bai* (*Huazhong University of Science and Technology*); *Yaocheng Shi* (*Zhejiang University*); *Xuewen Chen* (*Huazhong University of Science and Technology*);

11:25 Ab Initio Modeling of Multi-emitter Quantum Electrodynamics in Open and Dissipative Environments
Hyunwoo Choi (*Pohang University of Science and Technology*); *Junwoo Gim* (*Pohang University of Science and Technology*); *Jisang Seo* (*Pohang University of Science and Technology*); *Dong-Yeop Na* (*Pohang University of Science and Technology*);

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 Invited Information Processing through Photonic Devices Enabled through Adaptive Laser Fabrication
Martin J. Booth (*University of Oxford*);

8:20 Noise-resistance Photon-correlation Parallel LiDAR Driven by Super-bunching Light
Invited
Chengbing Qin (*Shanxi University*); *Yu Yan* (*Taiyuan University of Technology*); *Jiamin Li* (*Taiyuan University of Technology*); *Xuedong Zhang* (*Shanxi University*); *Xiangdong Li* (*Shanxi University*); *Yuanyuan Li* (*Shanxi University*); *Liantuan Xiao* (*Shanxi University*); *Suotang Jia* (*Shanxi University*);

8:40 Two-photon Quantum Module Evaluation (TQME): A Scalable and Resource-efficient Benchmarking Approach
Invited
Xiaoqi Zhou (*Sun Yat-Sen University*);

9:00 Exploring Ultrastrong and Deep-strong Light-matter Coupling in Superconducting Circuits: From Symmetry Breaking to Record-high Coupling Strengths
Invited
Shuaipeng Wang (*Beijing Academy of Quantum Information Sciences*); *Yuqing Wang* (*Beijing Academy of Quantum Information Sciences*); *Wenyan Wang* (*Beijing Academy of Quantum Information Sciences*); *Mo Chen* (*Beijing Academy of Quantum Information Sciences*); *Tie-Fu Li* (*Tsinghua University*); *J. Q. You* (*Zhejiang University*);

9:20 Demonstration of Long-distance Quantum Time Transfer Based on Energy-time Entangled Biphotons
Invited
Huibo Hong (*National Time Service Center, Chinese Academy of Sciences*); *Runai Quan* (*National Time Service Center, Chinese Academy of Sciences*); *Xiao Xiang* (*National Time Service Center, Chinese Academy of Sciences*); *Ruifang Dong* (*National Time Service Center, Chinese Academy of Sciences*);

9:40 Nonlocal Signal Processing Based on Energy-time Entangled Source
Invited
Xinghua Li (*National Time Service Center, Chinese Academy of Sciences*); *Junyu Cao* (*National Time Service Center, Chinese Academy of Sciences*); *Ruifang Dong* (*National Time Service Center, Chinese Academy of Sciences*);

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*);

12:00 Surface Acoustic Wave Driven 2D Nanoelectromechanical Resonators
Pei-Qin Chen (*University of Electronic Science and Technology of China*); *Ce Zhang* (*University of Electronic Science and Technology of China*); *Qin-Yuan Jiang* (*University of Electronic Science and Technology of China*); *You Wang* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*); *Guang-Can Guo* (*University of Science and Technology of China*); *Jia-Wei Fang* (*University of Electronic Science and Technology of China*); *Guangwei Deng* (*University of Electronic Science and Technology of China*);

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

Thursday AM, July 30, 2026

Room 14 - VIP R5

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*);

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)*);

00:00 Highly Pure Chiral Emission via Planar Chiral Metasurfaces
Yi Jin (*Zhejiang University*);

00:00 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*);

Session 3A14b
Advanced Optical Sensors

Thursday AM, July 30, 2026

Room 14 - VIP R5

Organized by Huan Li, Weixi Liu

Chaired by Weixi Liu

00:00 Invited Power-efficient Computational Spectrometers on Silicon Photonic Chips
Yiming Ma (*Shanghai University*);

00:00 Invited Levitated Nanoparticles as Optical Sensors for Low-frequency Electric-field Measurement and Applications
Zhenhai Fu (*Zhejiang University*);

00:00 Invited Integrated Photonic Chips and Devices for Optical Gyroscopes
Hongchen Jiao (*Beihang University*);

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

00:00 Invited High-performance Passive Integrated Photonic Devices for Fiber Gyroscopes
Weixi Liu (*Zhejiang University*);

00:00 Research on the Application of Relative Intensity Noise Electro Spectral Detection Method in Fiber Optic Sensing
Jin Jichao (*Zhejiang University*); *Xingfan Chen* (*Zhejiang University*);

Session 3A15
Integrated Photoelectric Information Processing Technology

Thursday AM, July 30, 2026

Room 15 - CR 18

Organized by Huashun Wen, Heng Zhou

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

8:20 Invited Experimental Investigation of Phase-sensitive Amplification 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 Signals in Photonic Firewalls
Yanbin Shen (*Beijing University of Posts and Telecommunications*); *Yanxia Tan* (*Research Institute of China United Network Communications Co, Ltd*); *Jiabin Cui* (*Beijing University of Posts and Telecommunications*); *Guo-Wei Lu* (*Kyushu University*); *Yuefeng Ji* (*Beijing University of Posts and Telecommunications*); *Huashun Wen* (*Nankai University*); *Ninghua Zhu* (*Nankai University*);

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

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

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

9:55 Harnessing Physics-data Co-driven Deep Neural Networks for Deciphering Optical Coupled Resonant Systems
Songyi Liu (*Beijing University of Posts and Telecommunications*); *Tingyang Pan* (*Beijing University of Posts and Telecommunications*); *Bolun Zhang* (*Beijing University of Posts and Telecommunications*); *Yemei Wang* (*Beijing University of Posts and Telecommunications*); *Bing Duan* (*Beijing University of Posts and Telecommunications*); *Yi Xu* (*Guangdong University of Technology*); *Huashun Wen* (*Nankai University*); *Daquan Yang* (*Beijing University of Posts and Telecommunications*);

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

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

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

00:00 Invited Supercontinuum Generation in Integrated Waveguide Platforms and Their Applications
Xingchen Ji (*Shanghai Jiaotong University*);

00:00 Invited Low-noise Laser and Frequency Comb Based on a Brillouin Ring
Hualong Bao (*Soochow University*);

Session 3A16
Light-matter Interaction in Micro- and Nanostructures 2

Thursday AM, July 30, 2026

Room 16 - CR 19

Organized by Pavlos G. Savvidis, Zheng Sun

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

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

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

8:55 Invited Light-matter Interaction in All-van der Waals Metasurfaces
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 $CsPbBr_3$ 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 $CsPbBr_3$
G. R. Yang (*Huazhong University of Science and Technology*); *Shuang Liang* (*University of Pittsburgh*); *Wei Xie* (*East China Normal University*); *Weihang Zhou* (*Huazhong University of Science and Technology*);

00:00 Invited Experimental Observation of Topological Polaritons and Phase Transitions
Ce Shang (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

00:00 Invited Acoustic Black Hole Formation in a Shock-wave Exciton-polariton Condensate
Junhui Cao (*Moscow Institute of Physics & Technology*);

00:00 Invited Ultrafast and Bright Quantum Sources with Selectively Activated Single Emitters Coupled with Nanophotonic Structures
Yong-Hoon Cho (*Korea Advanced Institute of Science and Technology (KAIST)*);

00:00 Structured Light Meets Liquid Crystals
Le Zhou (*The Hong Kong University of Science and Technology*); *Yuanfeng Liu* (*Tsinghua University*); *Pouya Nosratkhah* (*The Hong Kong University of Science and Technology*); *Ke Xu* (*The Hong Kong University of Science and Technology*); *Yang Shen* (*Tsinghua University*); *Jingbo Sun* (*Tsinghua University*); *Ji Zhou* (*Tsinghua University*); *Kristiaan Neyts* (*The Hong Kong University of Science and Technology*);

Session 3A17
Recent Advances in Optical Metasurfaces 1

Thursday AM, July 30, 2026

Room 17 - CR 20

Organized by Fei Ding, Cheng Zhang

Chaired by Fei Ding

8:00 Invited Tunable-focus Terahertz Meta-devices for 6G and Beyond
Jingcheng Zhang (*Northwestern Polytechnical University*);

8:20 Invited Deterministic Plasmonic Single-photon Emitters with Efficient Single-photon Emission and Extraction
Keyu Jin (*Zhejiang University*); *Zijian Qin* (*Zhejiang University*); *Hongzhi Chen* (*Zhejiang University*); *Yifei Hua* (*Zhejiang University*); *Lian Shen* (*Zhejiang University*);

8:40 Invited End-to-end Framework Empowers Versatile Metasurface Design
Cheng Chi (*Beijing Institute of Technology*);

9:00 Invited Metasurface-enabled Dynamical Optical Functions and Reconfigurable Information Steganography
Song Gao (*University of Jinan*);

9:20 Invited High-Q Resonant Meteasurfaces and Their Applications
Lujun Huang (*East China Normal University*);

9:40 Invited Disordered Mosaic Metasurfaces with Enhanced Functional Density
Haoran Ren (*Monash University*);

10:30 Invited Nonlinearity-induced Chirality in Resonant Metasurfaces
Kirill L. Koshelev (*Australian National University*);

10:50 Invited Tailoring Multidimensional Chiral Responses in All-dielectric Metasurfaces via Out-of-Plane Symmetry Engineering
Jingyi Tian (*Westlake University*);

11:10 High-throughput Linear and Nonlinear Optical Switching Enabled by Sb_2S_3/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*);

11:40 Design Optimization of Asymmetric Infrared-transparent Based Dielectric Metasurfaces 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 - VIP R8

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

Chaired by Weixiong Zhao, Lei Dong

8:00 Invited Broad-band, High-resolution, Free-running Dual-comb Spectroscopy for Greenhouse Gas Sensing
Jiaqi Zhou (*Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences*);

8:20 Invited Cavity Enhanced Absorption Spectroscopy for High Precision Measurement of Greenhouse Gases
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 Rotating Phase Mask Based D2NN for Multi-plane Holographic Display
Qiqi Wang (*Tongji University*); *Jiaxin Yan* (*Tongji University*); *Junhe Zhou* (*Tongji University*);

8:55 Invited Time-stretch Vibrational Spectroscopy
Takuro Ideguchi (*University of Tokyo*);

9:15 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*);

9:30 Invited Advances in Optical Spectroscopy for Atmospheric and Environmental Applications: From Simulation Chambers to Field Campaigns
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* (*Universite du Littoral Cote 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*);

9:50 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*);

10:30 Invited Time Domain Near Infrared Optical Tomography for Brain Imaging: Advances and Challenges
Jingjing Jiang (*University Hospital and University of Zurich*);

10:50 Invited Hyperspectral Imaging and Microscopy by Fourier Transform Spectroscopy
Cristian Manzoni (*CNR-IFN*);

00:00 Mid-IR QCL-based LIDAR for Ranging and Sensing
Jacopo Pelini (*CNR-INO — Istituto Nazionale di Ottica*); *Tecla Gabbrielli* (*National Institute of Optics of the National Research Council — CNR-INO*); *Francesco Cappelli* (*CNR-INO, Istituto Nazionale di Ottica*); *Lorenzo Mischi* (*PpqSense S.r.l.*); *Davide Mazzotti* (*CNR-INO, Istituto Nazionale di Ottica*); *Giovanni Bianchini* (*CNR-INO, National Institute of Optics*); *Paolo De Natale* (*CNR-INO, Istituto Nazionale di Ottica*); *Simone Borri* (*CNR-INO, Istituto Nazionale di Ottica*);

00:00 A Detectorless Photoacoustic Platform Based on Self-mixing Interferometry
Tecla Gabbrielli (*National Institute of Optics of the National Research Council — CNR-INO*); *Jacopo Pelini* (*CNR-INO — Istituto Nazionale di Ottica*); *Chenghong Zhang* (*CNR-INO, National Institute of Optics*); *Francesco Cappelli* (*CNR-INO, Istituto Nazionale di Ottica*); *Stefano Dello Russo* (*ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale*); *Mario Siciliani De Cumis* (*ASI Agenzia Spaziale Italiana — Centro di Geodesia Spaziale*); *Maria Concetta Canino* (*INFN, Istituto Nazionale di Fisica Nucleare*); *Alberto Roncaglia* (*CNR-ISMN, The Institute for the Study of Nanostructured Materials of the National Research Council of Italy*); *Paolo De Natale* (*CNR-INO, Istituto Nazionale di Ottica*); *Simone Borri* (*CNR-INO, Istituto Nazionale di Ottica*);

00:00 Invited A Frequency-locked Fiber-optic Gyroscope Based on Cascaded Resonant Stimulated-Brillouin Scattering
Gianluca Gagliardi (*CNR, Istituto Nazionale di Ottica (INO)*);

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

00:00 Invited Silicon Photonic Chiral Transmission
Lin Chen (*Huazhong University of Science and Technology*);

8:20 Invited Non-Abelian Gauge Fields in Synthetic Frequency Lattices
Luqi Yuan (*Shanghai Jiao Tong University*);

8:40 Invited Non-Abelian Braiding in Integrated Photonics
Xu-Lin Zhang (*Jilin University*);

9:00 Topological Nano-rainbow Laser
Invited
Yongquan Zeng (*Wuhan University*); *Shouqi Zhang* (*Wuhan University*); *Cuicui Lu* (*Beijing Institute of Technology*); *Shaohua Yu* (*Peng Cheng Laboratory*); *Qi Jie Wang* (*Nanyang Technological University*);

00:00 Overcoming Adiabatic Limitations in Topological Pho-
Invited tonic Waveguides
Wange Song (*Nanjing University*);

9:40 Supersymmetric Landau Levels in Subwavelength Type-
Invited I Dirac Metasurfaces
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*);

10:30 Landau Rainbow Induced by Artificial Gauge Fields
Wen Zhao (*Beijing Institute of Technology*); *Cuicui Lu* (*Beijing Institute of Technology*);

10:45 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*);

11:00 Photonic Platform for Topological Insulator Models
Kun Liao (*Peking University*); *Xiaoyong Hu* (*Peking University*);

11:15 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*);

11:30 Valley Topological Photonics for Robust Classical and Quantum Information Processing
Hongwei Wang (*Nanyang Technological University*);

11:45 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*);

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
Invited for Dynamic Tuning of Mid-infrared Photonic Devices
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 Universita di Roma*); *Maria Cristina Larciprete* (*Sapienza Universita di Roma*); *Roberto Macaluso* (*Università di Palermo*);

8:20 Metamaterials and Photonic Crystals for Thermophoto-
Invited voltaic Energy Harvesting
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
Invited Metal-semiconductor Materials
Olivier Henrotte (*Ludwig-Maximilians-Universität München*);

9:00 Infrared Purcell Engineering of Vibrational Relaxation
Invited for Controlling Excited-state Dynamics in 2D Materials
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 (*Isituto Italiano di Tecnologia*); *Juan José Alvarez-Serrano* (*Instituto de Química Física Blas Cabrera (IQF), CSIC*); *Muhammad Sohaib* (*Isituto Italiano di Tecnologia*); *Juan Ramón Deop-Ruano* (*Instituto de Química Física Blas Cabrera (IQF), CSIC*); *Alejandro Manjavacas* (*CSIC*); *Andrea Toma* (*Istituto Italiano di Tecnologia*);

00:00 Sustainable Photovoltaics and Photoelectrochemistry
Invited Based on Heavy-pnictogen Derivatives
Teresa Gatti (*Politecnico di Torino*);

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
Invited Temperature
Ting Luo (*Henan University*); *Shihao Feng* (*Henan University*); *Renming Liu* (*Henan University*);

10:50 Invited Electron Tunnelling and Exciton Manipulation in 2D WSe_2 Enabled by Hierarchical Plasmonic Nanocavities
Ximin Cui (*Shenzhen University*);

11:10 Invited Manipulating the Light-matter Interactions within Single Plasmonic Nanocavities
Jiawei Sun (*Shenzhen University*);

11:25 Invited Quantitative SERS beyond the Single-molecule Level and Its Statistical Mechanism
Zhipeng Li (*Capital Normal University*); *Longkun Yang* (*Capital Normal University*); *Hongxing Xu* (*Institute of Physics, Henan Academy of Sciences*);

00:00 Invited Topological Nanophotonics on Metal Surfaces
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 Invited Vector Vortex Beam Based Edge Enhancement with Dynamic Orientation Selectivity
Xianzhong Chen (*Heriot-Watt University*); *Hammad Ahmed* (*Heriot-Watt University*);

8:20 Invited Engineering 2D Materials for Polariton Nanophotonics
Qingdong Ou (*Macau University of Science and Technology*);

8:40 Invited Generalized Angle-OAM Talbot Effect
Jianqi Hu (*University of Hong Kong*);

9:00 Invited Disorder Metasurface for Wavefront Modulation
Qinghua Song (*Tsinghua University*);

9:20 Invited Ultra-broadband Miniature Computational Spectrometer
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*);

9:40 Invited Disordered Nanoparticle Arrays and Metasurfaces for Energy Harvesting and Encoding Optical Functionalities
Stefan Alexander Maier (*Monash University*);

10:30 Invited Structured Micro-lasers with Monolithic Disordered Perovskite Meta-cavities
Jiangang Feng (*University of Science and Technology of China*);

10:50 Invited Diamond Based Nanophotonic Devices
Pei-Nan Ni (*Zhengzhou University*);

11:10 Invited Boosted Light-matter Interaction on Random Lithography-free Metasurfaces
Qiaoqiang Gan (*King Abdullah University of Science and Technology (KAUST)*);

11:30 Chiroptical Helical Dichroism by Photonic Orbital Angular Momentum
Jincheng Ni (*University of Science and Technology of China*);

11:45 High-dimensional Entanglement Meets a Subwavelength Metasurface for Tunable Quantum Topological Structured 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*);

Session 3A22
Poster Session 6

Thursday AM, July 30, 2026

9:00 AM - 12:00 AM

Poster Area

00:00 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.*); *Xiaohe 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*);

00:00 Architecture Design of Software-defined Decentralized DBF Transceiver Module with Heterogeneous Acceleration
Liu Yang (*Nanjing Marine Radar Institute*);

00:00 Research on Electromagnetic Compatibility Simulation of Electromagnetic Energy Storage Devices Based on Actual Link Excitation
Junhao Shi (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Tao Bai* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 A Stable Numerical Evaluation Method for Analytical Via-plate Capacitance Formulation Using Modified Bessel Functions
Xiaoping Li (*Southwest University of Science and Technology*); *Tao Zhou* (*Southwest University of Science and Technology*); *Xu Wang* (*DeTooLIC Technology Co., Ltd.*); *Kan Hang* (*Zhejiang University*); *Yin Sun* (*DeTooLIC Technology Co., Ltd.*); *Xiaohe Chen* (*China University of Petroleum*); *Jingkun Mao* (*Tianjin University of Technology*);

00:00 Riemann-Silberstein Geometric Phase of Light
Yuqiong Cheng (*City University of Hong Kong*); *Yuan-Song Zeng* (*City University of Hong Kong*); *Wanyue Xiao* (*City University of Hong Kong*); *Tong Fu* (*Shenzhen University*); *Jiajun Wu* (*City University of Hong Kong*); *Geng-Bo Wu* (*City University of Hong Kong*); *Din Ping Tsai* (*City University of Hong Kong*); *Shubo Wang* (*City University of Hong Kong*);

00:00 Topological Phase Transition and Higher-order Corner States Analysis in a Coupling-coefficient-controlled Two-dimensional SSH Model
Yurou Zhong (*Sun Yat-sen University*);

00:00 All Dielectric Frequency Selective Surface Based on Dense Resonant Mode of High Permittivity Ceramic Blocks
Liyang Li (*Air Force Engineering University*); *Mingde Feng* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Atmospheric Pressure Microwave Cold Plasma Activated Periodate for Efficient Degradation of Emerging Water Contaminants with Mechanistic Insights
Li Xue (*Southwest Medical University*); *Yin Wang* (*Southwest Medical University*); *Jing Liu* (*Southwest Medical University*); *Hongyu Shendon* (*Southwest Medical University*); *Ping Wei* (*Southwest Medical University*); *Jiesi Luo* (*Southwest Medical University*);

00:00 Coherent Control of Three-level System Using Shaped Free Electrons
Dixuan Wu (*Peking University*); *Jing Li* (*Peking University*); *Yuhan Jiang* (*Peking University*); *Yunquan Liu* (*Peking University*);

00:00 Tunable Photonic Spin Hall Effect in Core-shell Polar Dielectric Nanoparticles
Ye Zhang (*Soochow University*); *Dongliang Gao* (*Soochow University*); *Andrey V. Novitsky* (*Belarusian State University*); *Aizaz Khan* (*Soochow University*); *Yunqiao Yin* (*Soochow University*); *Xiaofeng Xu* (*Soochow University*); *Lei Gao* (*Suzhou City University*);

00:00 Si-integrated Epitaxial $BaTiO_3$ Thin Films for Electro-optic Applications
Dong Gao (*Civil Aviation Flight University of China*); *Zhaoyang Wang* (*University of Electronic Science and Technology of China*); *Yangjingzhi Zhuang* (*Civil Aviation Flight University of China*); *Xiaoguang Tu* (*Civil Aviation Flight University of China*); *Qin Xie* (*Civil Aviation Flight University of China*); *Jun Qin* (*University of Electronic Science and Technology of China*); *Lei Bi* (*University of Electronic Science and Engineering of China*);

00:00 Embedded Fiber Optical Sensors for Structural Health Monitoring of Concrete Constructions
Ugis Senkans (*Riga Technical University*); *Nauris Silkans* (*Riga Technical University*); *Rihards Gailitis* (*Riga Technical University*); *Martins Caune* (*Riga Technical University*); *Viktorija Leimane* (*Riga Technical University*); *Sandis Spolitis* (*Riga Technical University*); *Gregor Fischer* (*Technical University of Denmark*); *Janis Braunfelds* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 Manipulating Excimer Emission in Organic Thin Films via Bloch Surface Wave Coupling
Keling Zhang (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Tienan Wang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Wentian Zhang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xinxin Yao* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Ying Lv* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xiaoyang Guo* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

00:00 Deep-ultraviolet-modulated Polarization-sensitive Optoelectronic Synapses Based on Ga_2O_3 for Neuromorphic Computing
Zhenyang Wang (*Zhejiang Sci-Tech University*); *Chao Wu* (*Zhejiang Sci-Tech University*); *Daoyou Guo* (*Zhejiang Sci-Tech University*);

00:00 Study of 3–5 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*);

00:00 Research on Application of Non-uniform Subarray True Time Delyaer for Wideband Phased Array
Guilin Sun (*The 38th Research Institute of China Electronics Technology Group Corporation*); *Hongtao Zhang* (*East China Research Institute of Electronic Engineering*); *Wei Wang* (*East China Research Institute of Electronic Engineering*);

00:00 Development of Switch Beam Antenna Using Koch Island Fractal Structure
Bambang Sumajudin (*Telkom University*); *Suprayogi* (*Telkom University*); *Adellia Rizki Oktaviani* (*Telkom University*); *Rahma Khairany* (*Telkom University*); *Paulus Osvaldo Yudistira Sihombing* (*Telkom University*); *Dwi Andi Nurmantris* (*Institut Teknologi Bandung*); *Novelita Rahayu* (*National Research and Innovation Agency (BRIN)*); *Achmad Munir* (*Institut Teknologi Bandung*);

00:00 High-power Slotted Array Antenna for Lightweight Platforms
Jiawei Wang (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Dongping Gao* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Quanju Shi* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Dengpan Chang* (*Aerospace Information Research Institute,Chinese Academy of Sciences*); *Jie Peng* (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Kaixuan Sun* (*Aerospace Information of Research Institute, Chinese Academy of Sciences, University of Chinese Academy of Sciences*);

00:00 A Broadband Tightly Coupled Phased Array Using Tapered Bow-tie Dipoles and Metasurface Matching Layer
Jun Xie (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Miao Tang* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 Compact Microstrip Tri-Band Bandpass Filter Using SIRs with Pseudo-interdigital Structure
Zuxue Xia (*Southwest University of Science and Technology*); *Wenhai Xia* (*Zhejiang Lierda Internet of Things Technology Co. Ltd.*); *Xin Cao* (*Southwest University of Science and Technology*); *Jie Zheng* (*Southwest University of Science and Technology*); *Dequan Shang* (*Southwest University of Science and Technology*);

00:00 A 129.5–151.5 GHz Fully Differential Power Amplifier in 65 nm CMOS for Broadband D-band OOK Transmission
Jingmin Jiang (*Guangzhou University*); *Zihua Xia* (*Guangzhou University*); *Xiuqiong Li* (*Guangzhou University*); *Yisi Yang* (*Guangzhou University*);

00:00 A Low-power Wideband Low-noise Amplifier with Current-reused Topology in 0.18-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*); *Xiuqiong Li* (*Guangzhou University*);

00:00 Experimental Investigation on Polarization of C-band Wave Absorber Structured with Open Ring Resonator
Budi Syihabuddin (*Telkom University*); *Rama Setya Anggara* (*Telkom University*); *Levy Olivia Nur* (*Telkom University*);

00:00 A Code-hopping Spread Spectrum Synchronization Algorithm with Structured Partial Matching and Noncoherent Accumulation
Haonan He (*Southwest University of Science and Technology*); *Li-Juan Deng* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Weiyu Xia* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 Analysis of Astroclimatic Conditions in the Extreme Far-infrared Range in Polar and Subpolar Regions
Vyacheslav F. Vdovin (*Institute of Applied Physics of the RAS*); *Maria V. Efimova* (*Institute of Applied Physics of the RAS*);

00:00 A Novel Frequency Domain Phase Filter for InSAR Interferograms Based on the Goldstein Filter
Shicheng Cao (*Northwestern Polytechnical University*); *Yuxiao Qin* (*Northwestern Polytechnical University*);

00:00 Lightweight Spiral Mamba Network with Dual-branch Polarimetric Attention and Wavelet Convolution for PolSAR Classification
Wenqiang Hao (*Wuhan Institute of Technology*); *Lei Wang* (*Wuhan Institute of Technology*); *Liangliang Han* (*Wuhan Institute of Technology*); *Shenghui Zhu* (*Wuhan Institute of Technology*); *Rong Gui* (*Central South University*);

00:00 Echo Compensation Method Based on Interrupted Transmitting and Receiving of Up-down Frequency Modulation Signal in Anechoic Chamber
Xiaobin Liu (*National University of Defense Technology*); *Zhenyu Qiao* (*National University of Defense Technology*); *Ailun Xie* (*National University of Defense Technology*); *Zhaoyu Gu* (*National University of Defence Technology*); *Feng Zhao* (*National University of Defense Technology*);

00:00 A Channel-weighted Transformer Method for Satellite Microwave Atmospheric Temperature and Humidity Profile Retrieval
Boyang Wang (*Beijing Information Science and Technology University*); *Lanjie Zhang* (*Beijing Information Science and Technology University*); *Gang Wang* (*China Meteorological Administration China Huayun Meteorological Technology Group Co., Ltd*); *Jun Liu* (*China Meteorological Administration China Huayun Meteorological Technology Group Co., Ltd*); *Qiurui He* (*Luoyang Normal University*);

00:00 Modified Processing Sequence of FTT and RFI Correction for the L-band Aperture Synthesis Microwave Radiometer (LASMR)
Liu Yang (*Huazhong University of Science and Technology*); *Rong Jin* (*Huazhong University of Science and Technology*); *Ke Chen* (*Huazhong University of Science and Technology*); *Qingxia Li* (*Huazhong University of Science and Technology*);

00:00 Research Progress of Optical Quantum Detection
Jing Qiu (*Southwest Institute of Technical Physics*); *Beitong Cheng* (*Southwest Institute of Technical Physics*); *Ruomei Jiang* (*Southwest Institute of Technical Physics*); *Weiying Hu* (*Southwest Institute of Technical Physics*); *Zichang Zhang* (*Southwest Institute of Technical Physics*); *Si Shen* (*Southwest Institute of Technical Physics*); *Shuai Huang* (*Southwest Institute of Technical Physics*); *Tong Li* (*Southwest Institute of Technical Physics*); *Mengke Cai* (*Southwest Institute of Technical Physics*); *Wei Zhang* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*);

00:00 Design of a Compact High-voltage Pulse Generator
Shunqiang Wan (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Jie Deng* (*Southwest University of Science and Technology*); *Zipeng Zhang* (*Southwest University of Science and Technology*); *Yuheng Gao* (*Southwest University of Science and Technology*); *Cong Fu* (*Southwest University of Science and Technology*);

00:00 Advanced Linearization and Ripple Suppression for High-voltage Piezoelectric Drivers via Parallel Multilevel Topologies and Digital Predistortion
Haoyu Zhang (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Cheng Chen* (*Southwest University of Science and Technology*); *Qifeng Wu* (*Southwest University of Science and Technology*); *Hongqiao Chen* (*Southwest University of Science and Technology*); *Yuheng Gao* (*Southwest University of Science and Technology*);

00:00 Optimization of Linearity and Efficiency for Medium Wave Radio Transmitter Power Amplifiers
Yong Li (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yonghao Lu* (*Southwest University of Science and Technology*); *Yining Qing* (*Southwest University of Science and Technology*); *Qilong Yu* (*Southwest University of Science and Technology*); *Cheng Chen* (*Southwest University of Science and Technology*); *Yuying Zhu* (*Southwest University of Science and Technology*);

00:00 SOC Algorithm Estimation Considering Temperature Factors
Junfeng Luo (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Qiu He* (*Southwest University of Science and Technology*); *Hao Yang* (*Southwest University of Science and Technology*); *Yue Pan* (*Southwest University of Science and Technology*); *Jingxin Wei* (*Southwest University of Science and Technology*);

00:00 A Low Temperature Coefficient Bandgap Reference Using Current Domain Segmented Curvature Compensation
Liangyu Cao (*Southwest Jiaotong University*); *Quanyuan Feng* (*Southwest Jiaotong University*); *Huijia Li* (*Southwest Jiaotong University*);

00:00 A Superjunction IGBT with an Adjusted Carrier-storage Layer and an Additional Hole Path
Yixuanzhe Zhou (*Southwest Jiaotong University*); *Quanyuan Feng* (*Southwest Jiaotong University*); *Yuchi Qin* (*Southwest Jiaotong University*);

00:00 Clock-synchronized Dual-lane Sub-THz Silicon Interconnect Using Field-enhanced SSPP Transmission Lines
Mengding Guo (*Guangzhou University*); *Lin Peng* (*Guangzhou University*); *Keshan Guo* (*Guangzhou University*); *Yibo Li* (*Guangzhou University*); *Yufan Xie* (*Guangzhou University*); *Yuming Su* (*Guangzhou University*); *Yuqian Han* (*Guangzhou University*);

00:00 Phsical EXAMINATION and Simulation of Stability of GLYCINE IN SWCNT Nanotubes as well as Use of Carbon Nanotube for Environment Protection Applications
Diyar Bajalan (*Technische Universität Wien*);

00:00 Low-scattering Design and Electrical Performance Analysis of Metal Pylons for RCS Testing of Large-scale Targets Using NCDD-IE Method
Zeng Yang (*National Key Laboratory of Scattering and Radiation*); *Dong-Jue Liu* (*National Key Laboratory of Scattering and Radiation*); *Xiaolin Mi* (*National Key Laboratory of Scattering and Radiation*); *Yong-Gang Xu* (*National Key Laboratory of Scattering and Radiation*); *Zhi-Yong Huang* (*National Key Laboratory of Scattering and Radiation*); *Zhijie Xie* (*National Key Laboratory of Scattering and Radiation*);

00:00 Research on Optimal Design Method of IC-stripline Cell with Low Return Loss Based on Impedance Matching
Yongtao Wang (*National University of Defense Technology*); *Jianfei Wu* (*National University of Defense Technology*); *Ledong Chen* (*National University of Defense Technology*); *Fukang Niu* (*National University of Defense Technology*);

00:00 ESD Evaluation for DC-DC Power in Aircraft Cabin Electromagnetic Environment Radiated by High Altitude Pulse Interference
Tao Bai (*Southwest University of Science and Technology*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Junhao Shi* (*Southwest University of Science and Technology*); *Yuan Zhang* (*Robot Technology Used for Special Environment Key Laboratory of Sichuan Province*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Xin Cao* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 A Coupling-analysis Framework for RF Interference Between RF Traces and Power Planes
Tao Zhou (*Southwest University of Science and Technology*); *Shengjun Liu* (*Huaqin Technology Co. Ltd.*); *Xiaoping Li* (*Southwest University of Science and Technology*); *Kaiming Ding* (*Huaqin Technology Co. Ltd.*); *Bin He* (*Huaqin Technology Co. Ltd.*); *Haiying Wang* (*Huaqin Technology Co. Ltd.*); *Xu Wang* (*DeTooLIC Technology Co., Ltd.*); *Anfeng Huang* (*DeTooLIC Technology Co., Ltd.*); *Yin Sun* (*DeTooLIC Technology Co., Ltd.*); *Qiusen He* (*Zhejiang University*); *Shufang Li* (*Beijing University of Posts and Telecommunications*); *Jun Fan* (*Southwest University of Science and Technology*); *Xiaohe Chen* (*China University of Petroleum*);

00:00 Acoustic Pancharatnam-Berry Metasurfaces for Structured Sound Manipulation
Wanyue Xiao (*City University of Hong Kong*); *Wenjian Kuang* (*Hong Kong Polytechnic University*); *Sibo Huang* (*City University of Hong Kong*); *Shanjun Liang* (*Hong Kong Polytechnic University*); *Din Ping Tsai* (*City University of Hong Kong*); *Shubo Wang* (*City University of Hong Kong*);

00:00 Approximate Flat Bands and Localization in a One-dimensional Zigzag Granular Chain
Zhuo-Ying Liu (*Sun Yat-sen University*);

00:00 Thermal Information Encryption Based on Composite Metasurfaces Comprising Volatile and Nonvolatile Phase-change Materials
Jungwoo Pyo (*Yonsei University*); *Dongkyun Kang* (*Yonsei University*); *Jaehyeong Kim* (*Yonsei University*); *Hwajin An* (*Yonsei University*); *Myeongkyu Lee* (*Yonsei University*);

00:00 ADMM Spectrum Recovery Technique for THz Stepped-frequency Thickness Measurement Systems
Tianchi Zhou (*UESTC*); *Yi Zhou* (*UESTC*); *Jun Zhou* (*University of Electronic Science and Technology*); *Yaxin Zhang* (*University of Electronic Science and Technology of China*); *Ziqiang Yang* (*University of Electronic Science and Technology of China*);

00:00 Observation of Quantized Klein Tunneling in a Dielectric Resonator Chain
Ruijie Zhang (*Lanzhou University*); *Xiaozhen Peng* (*Lanzhou University*); *Hongya Xu* (*Lanzhou University*); *Liang Huang* (*Lanzhou University*);

00:00 Multi-channel Illumination Nonlinear Focus Modulation Microscopy
Junyi Tong (*Zhejiang Normal University*); *Anping Xiao* (*Zhejiang Normal University*); *Chuankang Li* (*Zhejiang Normal University*);

00:00 Comparative Analysis of CNN Architectures Efficiency in Recognition of Wavefront Aberrations by the 4-channel Axicons Transformed Point Spread Function
D. P. Seraflmovich (*Samara National Research University*); *Pavel A. Khorin* (*Samara National Research University, Saint-Petersburg State University, ITMO University*);

00:00 A Fast Radon-Fourier Transform Algorithm Based on Hierarchical Variable-resolution Search
Ziyu Feng (*University of Electronic Science and Technology of China*);

00:00 Design and Research of High-efficiency Compact Bunching Sections for C-band Klystrons
Hongtao Yao (*Northwest Institute of Nuclear Technology*);

00:00 Quantum Theory of the Influence of Intense Electromagnetic Waves on Quantum Thermo-magnetoelectric Effects in Two-dimensional Infinite Semi-parabolic Asymmetric Quantum Wells
Nguyen Thu Huong (*Academy of Air Defense and Air Force*); *Nguyen Dinh Nam* (*Vietnam National University*); *Nguyen Quang Bau* (*Hanoi National University*); *Nguyen Quang Son* (*VNU University of Science*);

00:00 Strong Interaction between Plasmon and Topological Surface State in $Bi_2Se_3/Cu_{2-x}S$ Nanowires for Solar-driven Photothermal Applications
Liang Ma (*Wuhan Institute of Technology*); *Si-Jing Ding* (*China University of Geosciences (Wuhan)*);

00:00 Spatial Code Division Encrypted/Multiplexed Images
Junhe Zhou (*Tongji University*); *Qiqi Wang* (*Tongji University*);

00:00 A 127–157 GHz Broadband CMOS Power Amplifier with Stagger-tuned Driver Stages and Slot-balun Output Matching
Yidan Wang (*Guangzhou University*); *Jiawen Zhong* (*Guangzhou University*); *Xiuqiong Li* (*Guangzhou University*); *Yisi Yang* (*Guangzhou University*); *Jingmin Jiang* (*Guangzhou University*); *Zihua Xia* (*Guangzhou University*); *Zicheng Liang* (*Guangzhou University*); *Rui Yu* (*Guangzhou University*);

00:00 Preliminary Evaluation on Signal Reception Performance of Circularly Polarized MIMO Antenna
Chairunnisa (*Institut Teknologi Bandung*); *Trasma Yunita* (*Institut Teknologi Bandung*); *Agus Dwi Prasetyo* (*Institut Teknologi Bandung*); *Suprayogi* (*Telkom University*); *Bambang Sumajudin* (*Telkom University*); *Aloysius Adya Pramudita* (*Telkom University*); *Achmad Munir* (*Institut Teknologi Bandung*);

00:00 Orbit Determination for LEO Satellite Using Range Rate-based TLE Estimation at a Single Low-cost Ground Station
Achmad Maulana Syaerwan Suryo (*Institut Teknologi Bandung*); *Dwi Andi Nurmantris* (*Telkom University*); *Ridanto Eko Poetro* (*Institut Teknologi Bandung*); *Achmad Munir* (*Institut Teknologi Bandung*);

00:00 Physics-inspired Neural Networks Based on Parametric Scattering Center for RCS Reconstruction
Tian-Xu Yan (*Shanghai Institute of Mechanical and Electrical Engineering*); *Guotao Jiang* (*Shanghai Institute of Mechanical and Electrical Engineering*); *Jiayi Yang* (*Shanghai Institute of Mechanical and Electrical Engineering*); *Zeng Yang* (*National Key Laboratory of Scattering and Radiation*); *Gewen Yang* (*Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)*); *Kaizhi Ruan* (*Shanghai Institute of Mechanical and Electrical Engineering and Key Laboratory of Automatic Target Recognition (Shanghai)*);

00:00 Apodization-based Fiber Bragg Grating Sensor Networks for Structural Health Monitoring
Janis Braunfelds (*Riga Technical University*); *Ugis Senkans* (*Riga Technical University*); *Viktorija Leimane* (*Riga Technical University*); *Nauris Silkans* (*Riga Technical University*); *Martins Caune* (*Riga Technical University*); *Sandis Spolitis* (*Riga Technical University*); *Gregor Fischer* (*Technical University of Denmark*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 Optically Pumped Lasing from Pyrene Excimers in a Planar Microcavity
Tienan Wang (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Jie Lin* (*Oxford University*); *Xiaoyang Guo* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Ying Lv* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

00:00 CNN-transformer Hybrid Architecture for Nonlinear Distortion Compensation in Open RAN Optical Infrastructure
Igors Lipļanskis (*Riga Technical University*); *Roberts Pildavs* (*Riga Technical University*); *Inna Nagla* (*Riga Technical University*); *Nadezda Ungure* (*Riga Technical University*); *Elans Grabs* (*Riga Technical University*); *Toms Salgals* (*Riga Technical University*); *Ernests Pētersons* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Aleksandrs Romanovs* (*Riga Technical University*); *Guntis Ancans* (*Riga Technical University*); *Lilita Gegere* (*Riga Technical University*); *Aleksandrs Ipatovs* (*Riga Technical University*);

00:00 A High Gain, UWB Vivaldi Antenna Loaded with Director for EMC Measurement Application
Tong Li Yuan (*Southwest University of Science and Technology*); *Ruofan Wang* (*Southwest University of Science and Technology*); *Ling Ren* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Zhen-Yong Du* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yixiang Li* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 Simulation of a Balanced Antipodal Vivaldi Antenna Fed with a SISL Structure
Junrui Zhang (*Shandong University*); *Huashan Zhang* (*Shandong University*); *Qipeng Wang* (*AVIC Research Institute for Special Structures of Aeronautical Composites*); *Peng Liu* (*AVIC Research Institute for Special Structures of Aeronautical Composites*); *Guiqiang Du* (*Shandong University*);

00:00 Design of a Broadband Circular Polarized Patch Antenna Using a Microstrip Power Divider
Egor Dmitrievich Malev (*National Research University "Moscow Power Engineering Institute"*); *T. A. Trushin* (*National Research University "Moscow Power Engineering Institute"*); *Mikhail Sergeyevich Mikhailov* (*National Research University "Moscow Power Engineering Institute"*); *Valery A. Permyakov* (*National Research University "Moscow Power Engineering Institute"*);

00:00 Solar Radio Images Observed by the Wide Band 0.4–2 GHz Solar Radio Telescope
Sha Li (*National Space Science Center of the Chinese Academy of Sciences*); *Yihua Yan* (*National Space Science Center of the Chinese Academy of Sciences*); *Chengming Tan* (*National Space Science Center of the Chinese Academy of Sciences*); *Zhichao Zhou* (*National Space Science Center of the Chinese Academy of Sciences*); *Wei Wang* (*National Space Science Center of the Chinese Academy of Sciences*); *C. Su* (*National Space Science Center of the Chinese Academy of Sciences*);

00:00 Design of X-band Broadband Slotted Circularly Polarized Phased Array Antenna
Miao Tang (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Jun Xie* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 Compact High-selectivity Bandpass Filter Based on Cross-coupled SIRs
Ji Li (*Southwest University of Science and Technology*); *Zuxue Xia* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Hangjiang Xiao* (*Southwest University of Science and Technology*);

00:00 A 2.4-GHz 0.18-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*);

00:00 Theoretical and Experimental Investigation of Subterahertz Gyrotron Helical Electron Beam Parameters
Andrey N. Kuftin (*Institute of Applied Physics of the RAS*); *Vladimir Nikolaevich Manuilov* (*Institute of Applied Physics RAS*);

00:00 A Tunable VO_2-based Metamaterial Absorber with Ultra-broadband and Polarization-insensitive Performance
Meng Han (*Civil Aviation Flight University of China*); *Dun Lu* (*University of Electronic Science and Technology of China*); *Ningjie Shi* (*University of Electronic Science and Technology of China*);

00:00 Silence-aware Dynamic TDMA Scheduling for Multi-user Low-rate Voice Communication
Long Zhang (*Xi'an University of Posts & Telecommunications*); *Kangrui Hou* (*Xi'an University of Posts & Telecommunications*);

00:00 Coexistence Challenges of Meteorological Radars and RLAN in the 5 GHz Frequency Band
Guntis Ancans (*Riga Technical University*); *Arnis Ancans* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Lilita Gegere* (*Riga Technical University*);

00:00 A Novel Method Based on Ghosts Position Offset in SAR Sub-aperture Image for Multipath Ghosts Suppression
Yi Zhang (*National University of Defense Technology*); *Leping Chen* (*National University of Defense Technology*); *Dao Xiang An* (*National University of Defense Technology*);

00:00 Research on Dynamic Detection of Near-surface Defects in Continuous Casting Steel Billets Based on Electromagnetic-thermal Coupling Mechanism
Jiayu Li (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Hui Zhao* (*Southwest University of Science and Technology*); *Junxi Su* (*Southwest University of Science and Technology*); *Yuhao Zeng* (*Southwest University of Science and Technology*);

00:00 A Physics-informed Neural Surrogate Framework for Real-time Refractivity from Clutter Inversion
Yi Yan (*Xidian University*); *Jiangting Li* (*Xidian University*); *Yuxuan Wang* (*Xidian University*);

00:00 Study on the Sources of Brightness Temperature Simulation Bias in Terahertz Ice Cloud Remote Sensing
Liu Yang (*Shanghai Aerospace Electronics Technology Research Institute*); *Jie Gao* (*Shanghai Spaceflight Institute of TT&C and Telecommunication*); *Jian Shang* (*National Satellite Meteorological Center (National Centre for Space Weather)*); *Fangli Dou* (*National Satellite Meteorological Center (National Centre for Space Weather)*); *Wulayin Yisilamu* (*Institute of Desert and Meteorology, China Meteorological Administration*);

00:00 Enhanced Quantum Sensing with Dynamical Correction
Zhida Zhang (*Southern University of Science and Technology*); *Haidong Yuan* (*The Chinese University of Hong Kong*); *Xiu-Hao Deng* (*International Quantum Academy*);

00:00 FPGA-based Digital Architecture for Dynamic Frequency Tracking in High-frequency Induction Heating
Zipeng Zhang (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Shunqiang Wan* (*Southwest University of Science and Technology*); *Jingxin Wei* (*Southwest University of Science and Technology*);

00:00 Construction of Short-length Encoded Worst-case Patterns Using Genetic Algorithms
Jie Li (*Southwest University of Science and Technology*); *Wenzhi Wang* (*DeTooLIC Technology Co., Ltd*); *Yin Sun* (*DeTooLIC Technology Co., Ltd.*); *Xiaohe 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*); *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*);

00:00 A New Significant Wave Height of Wind Wave Inversion Model Proposed Based on Wind Speed
Daozhong Sun (*Xidian University*); *Xianxian Luo* (*Xidian University*); *Qian Li* (*Xidian University*); *Feng Luo* (*Xidian University*);

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 Fine Features of Sea Ice Leads in the Arctic Using a Deep Learning Model from Sentinel-1 SAR Images
X. R. Yang (*Institute of Oceanology, Chinese Academy of Sciences*); *Yibin Ren* (*Institute of Oceanology, Chinese Academy of Sciences*); *Xiaofeng Li* (*Institute of Oceanology, Chinese Academy of Sciences*);

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 ();

00:00 Global-local Feature Fusion Network for Multi-task Sea Ice Retrieval
Yuxuan Hu (*Tongji University*); *Tiantian Feng* (*Tongji University*); *Yushi Yang* (*Tongji University*); *Peng Jiang* (*Tongji University*);

00:00 Precise Recognition and Change Detection of Sea Ice Based on Optical Remote Sensing Images
Wenjun Hong (*Fuzhou University*); *Zhanchao Huang* (*Fuzhou University*); *Hua Su* (*Fuzhou University*);

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
Ya Fu (*Chengdu University of Information Technology*); *Xiaojing Huang* (*Sichuan Meteorological Observatory*); *Li Luo* (*Institute of Urban Meteorology*); *Bowen Ren* (*Chengdu University of Information Technology*); *Fang Cong* (*Sichuan Meteorological Observatory*); *Ling Yang* (*Chengdu University of Information Technology*); *Xiaoqiong Zhen* (*Chengdu University of Information Technology*);

13:45 Comparative Analysis of Beijing's S-band Weather Radar and C-band Phased Array Radar Observations During a Single Heavy Rainfall Event
Bowen Ren (*Chengdu University of Information Technology*); *Jinqiang Zhang* (*Institute of Atmospheric Physics, Chinese Academy of Sciences*); *Fugui Zhang* (*Chengdu University of Information Technology*); *Ya Fu* (*Chengdu University of Information Technology*); *Hong-Bin Chen* (*Institute of Atmospheric Physics, CAS*); *Xiaoqiong Zhen* (*Chengdu University of Information Technology*); *Wenying He* (*Institute of Atmospheric Physics, Chinese Academy of Sciences*); *Yongheng Bi* (*Institute of Atmospheric Physics, Chinese Academy of Sciences*);

00:00 SIL Radar Sensor Based on a 2–4 GHz Push-Push VCO Used for Vital Sign Detection
Chun Chen (*City University of Hong Kong Qingdao Research Institute*); *Zhengqing Guo* (*City University of Hong Kong Qingdao Research Institute*); *Xianzhong Tian* (*City University of Hong Kong Qingdao Research Institute*);

Session 3P2b
Microwave Imaging and Planetary Exploration Applications

Thursday PM, July 30, 2026

Room 2 - CR 2

Organized by Pingping Lu, Robert Yu Wang

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 ʻAʻā 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*);

00:00 Full Polarimetric Electromagnetic Scattering Model of Lunar Ice Particles and Analysis
Niutao Liu (*Fudan University*); *Lan Luo* (*Fudan University*); *Ya-Qiu Jin* (*Fudan University*);

00:00 Antenna Pattern Calibration and Multi-scene Consistency for Mini-RF S-band
Zeyu Li (*National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences*); *Fei Zhao* (*National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences*); *Tingyu Meng* (*University of Chinese Academy of Sciences*); *Lizhi Liu* (*National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences*); *Zihan Xu* (*National Key Laboratory of Microwave Imaging, Aerospace Information Research Institute, Chinese Academy of Sciences*); *Pingping Lu* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

Session 3P2c
Electromagnetic Scattering and Inversion in Complex Environments

Thursday PM, July 30, 2026

Room 2 - CR 2

Organized 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*);

00:00 Key Factors Influencing Ship Wake Detection in SAR Images
Qian Li (*Xidian University*); *Daozhong Sun* (*Xidian University*); *Feng Luo* (*Xidian University*); *Fanwei Su* (*Ocean University of China*);

17:00 NIE-Net: A New Integral Equation Network for Inverse Scattering Problems
Zhenghui Su (*Fudan University*); *Hongxia Ye* (*Fudan University*);

17:15 BSM-CCBFM: A Hybrid Algorithm for Accelerated Full-wave Scattering Simulation of Electrically Large Rough Surfaces with Validation on Oceanic and Lunar Surface Scattering
Chenghao Cai (*Fudan University*); *Hongxia Ye* (*Fudan University*);

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

16:00 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*);

16:15 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*);

16:30 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*);

16:45 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*);

17:00 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*);

17:15 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*);

17:30 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*);

17:45 Polarimetric Patterns: A Deep Understanding of Polarimetric Scattering Responses
Junjun Yin (*University of Science and Technology Beijing*); *Jian Yang* (*Tsinghua University*);

18:00 Salt Crust Fine Classification of Fully Polarimetric SAR Based on the Corrections from Rough Surface Scattering Mechanism
Shuo Li (*Jinan Branch of China United Network Communications Co., Ltd.*); *Minghan Huang* (*Beijing University of Chemical Technology*); *Qiang Yin* (*Beijing University of Chemical Technology*); *Fan Zhang* (*Beijing University of Chemical Technology*);

00:00 Rapeseed Total Photosynthetic Area Index Inversion Coupling Canopy Vertical Layered Microwave Scattering Mechanism and Machine Learning
Shangrong Wu (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*);

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

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*);

00:00 ITO Film-based Wide-angle Communication Enhanced Metasurface
Yujuan Wei (*Air Force Engineering University*);

00:00 Longitudinal Control of Topological Skyrmions via Phased Meta-array
Xinmin Fu (*Air Force Engineering University*);

00:00 Cosinusoidal Phase Modulation Jamming Using Tunable Metasurface Against SAR-GMTI
Chang Ding (*Harbin Institute of Technology*); *Huilin Mu* (*Air Force Engineering University*); *Fanyi Meng* (*Harbin Institute of Technology*); *Yun Zhang* (*Harbin Institute of Technology*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Design of Conformal Beam Scanning Leakage Wave Antenna Based on PI
Jiahao Liu (*Shenyang Aerospace University*); *Shuang Ma* (*Shenyang Aerospace University*);

00:00 Bipolarized Time-domain Modulated Reconfigurable Electromagnetic Metamaterial Surface
Peizhou Hu (*Air Force Engineering University*);

Session 3P4
Recent Advances in Computational Electromagnetics for Forward and Inverse Problems

Thursday PM, July 30, 2026

Room 4 - CR 8

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*);

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 Efficient and High-precision Finite Element Simulation Techniques for Geophysical Electromagnetic Methods
Changkai Qiu (*Institute of Geology and Geophysics, Chinese Academy of Sciences*);

14:45 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*);

15:00 Study on the Mechanism of Marine Magnetotellurics Based on Electromagnetic Wave Propagation Theory
Guihang Shao (*Shandong Provincial Research Institute of Coal Geology Planning and Exploration*); *Yuguo Li* (*Ocean University of China*); *Jie Lu* (*Yangtze University*); *Tianyi Dai* (*Ocean University of China*); *Jiaqi Ge* (*Aerospace Information Technology University*);

15:03 Application of the Opposing Coils Transient Electromagnetic Methdod 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*); *Delong 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*);

15:06 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*);

16:00 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*);

16:15 Invited Efficient Adjoint-based Sensitivity Approximation for 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)*);

16:35 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*);

16:50 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*);

17:05 Logging-While-Drilling Electrical Imaging Method in Oil-based Mud
Yunxin Zeng (*Southwest Petroleum University*); *Zhenguan Wu* (*Southwest Petroleum University*); *Jiayin Liang* (*Southwest Petroleum University*); *Guoping Huang* (*Southwest Petroleum University*);

17:20 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*);

17:35 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*);

17:50 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 3P5a
Inverse Design of Antennas and RF Circuits

Thursday PM, July 30, 2026

Room 5 - CR 9

Organized by Yujie Zhang, Ziheng Zhou

Chaired by Yujie Zhang, Ziheng Zhou

13:00 Subwavelength Pixel Metamaterial for High-density Analog Computing
Pengyu Fu (*Tsinghua University*); *Yue Li* (*Tsinghua University*);

13:15 Invited Multiport Analytical Pixel Electromagnetic Simulator (MAPES) for AI-assisted Inverse Design of Microwave/RFIC Structures
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*);

13:35 Invited Neural Network Based Single-RF ESPAR Beamforming
Zixiang Han (*China Mobile Research Institute*); *Hanning Wang* (*China Mobile Research Institute*); *Jing Jin* (*China Mobile Research Institute*); *Qixing Wang* (*China Mobile Research Institute*); *Junhui Rao* (*Hong Kong University of Science and Technology*); *Yujie Zhang* (*Nanyang Technological University*);

13:55 AI for Electromagnetic Scattering Analysis Based on Inherent Feature Parameters
De-Hua Kong (*National University of Singapore*); *Xudong Chen* (*National University of Singapore*);

14:10 Invited Inverse Design of Geometric-phase Meta-atoms with Distinct Symmetries for Flexible Wavefront Control
Kai Qu (*Nanjing University*); *Ke Chen* (*Nanjing University*); *Yijun Feng* (*Nanjing University*);

14:30 Inverse Design of Pixel-metastructure-based Multi-element MIMO Antennas
Bin Wei (*Fuzhou University*); *Zubin Cheng* (*Fuzhou University*); *Ziheng Zhou* (*Fuzhou University*);

14:45 Design of Matrix-type and Reconfigurable Multi-beam Antenna Arrays Using Pixel Structures
Fan Jiang (*Guangdong University of Technology*); *Zhitao Song* (*Guangdong University of Technology*);

15:00 Design of Shared-aperture Multiband MIMO Antenna Array by Scattering Minimization
Yujie Zhang (*Nanyang Technological University*); *Xudong Chen* (*National University of Singapore*);

Session 3P5b
Antenna and Array: Theory and Applications 1

Thursday PM, July 30, 2026

Room 5 - CR 9

16:00 A Hybrid Optimization Framework for 2-bit Polarimetric Time Modulated Array Beamforming
Dongwei Lu (*National University of Defense Technology*); *Jiazhi Ma* (*National University of Defense Technology*);

16:15 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*);

16:30 Research on Dual-band High-power Reflect Array Antenna Based on Orthogonal Open-loop Circularly Polarized Elements
Yunfei Sun (*National University of Defense Technology*); *Zhaokun Ma* (*National University of Defense Technology*); *Quan Zhang* (*National University of Defense Technology*); *Chenbo Hua* (*National University of Defense Technology*); *Qiang Zhang* (*National University of Defense Technology*);

16:45 Edge Loading Technique for Bandwidth Enhancement of Antipodal Vivaldi Antenna Array
Xiao-Jun Zou (*National University of Defense Technology*);

17:00 Wideband Clover-shaped ME-dipole Antenna on Glass Substrate for D-band Array Applications
Jiachen Du (*Pengcheng Laboratory*); *Zhangju Hou* (*Pengcheng Laboratory*); *Ge Zhang* (*Pengcheng Laboratory*); *Wentao Xu* (*Pengcheng Laboratory*); *Shangcheng Kong* (*Pengcheng Laboratory*);

17:15 A Novel Ultra-wideband Reconfigurable Array Antenna Based on Fractal Structures
Jianying Zhao (*Shanghai Polytechnic University*); *Chi Zhang* (*Shanghai Polytechnic University*); *Xiaokun Gu* (*Shanghai Polytechnic University*); *Mei Song Tong* (*Tongji University*); *Li Zhang* (*Shanghai Polytechnic University*);

17:30 Design of a Tri-band Dual Circularly Polarized Antenna
Jun-Cheng Shen (*Xidian University*); *Xu-Bing Su* (*Xidian University*); *Neng-Wu Liu* (*Xidian University*);

17:45 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*);

Session 3P6
Principles and Mechanisms in Microwave Chemistry

Thursday PM, July 30, 2026

Room 6 - CR 10

Organized by Kama Huang

00:00 Invited A Phase-locked Cherenkov-type Oscillator for High Power Microwave Applications
Jin-Chuan Ju (*National University of Defense Technology*); *Tianzhen Zhao* (*National University of Defense Technology*); *Wei Zhang* (*National University of Defense Technology*);

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 Study on the Thermal Mechanism of Microwave and Infrared Irradiation on Materials Based on Multi Physics Calculation
X. W. Xu (*China West Normal University*); *D. G. Shen* (*Chengdu Guoguang Electric Co., Ltd*); *G. Shen* (*Sichuan Nanchong Shouchuang Technology Development Co., Ltd*); *Zheng-Ming Tang* (*China West Normal University*);

14:35 A Compact Coaxial Microwave Exciter for Enhancing Deep-ultraviolet ZnI_2 Lamp Output
Yu Zhong (*Chongqing Polytechnic University of Electronic Technology*); *Kama Huang* (*Sichuan University*);

14:50 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*);

16:00 A Method for Enhancing the Self-ignition of Atmospheric Pressure Microwave Plasma by Using Porous Silicon Carbide
Wenqi Chen (*China West Normal University*); *Kama Huang* (*Sichuan University*);

16:15 Metamaterial-assisted Impedance Compression for High-efficiency Microwave Heating of Dynamic Dielectric Loads
Fengming Yang (*Chengdu University of Technology*);

00:00 Multiphysics Coupling Simulation of Microwave-assisted Pyrolysis of Low-rank Coal
Lin Gao (*Taiyuan University of Science and Technology*); *Wenyan Tian* (*Taiyuan University of Science and Technology*); *Jiaming Shi* (*Taiyuan University of Science and Technology*);

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*);

00:00 An Impedance Matching Method for High-efficiency Heating in Rectangular Waveguide
Tao Hong (*China West Normal University*);

17:15 Macrokinetic Models of Microwave Chemistry
Kama Huang (*Sichuan University*);

17:30 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 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 Wanying Liu

00:00 Invited Exceptional Points Evolved from Bound States in the Continuum
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*);

13:20 Dynamic Reconfigurable Metasurface Based on the Congener Dipoles Huygens Elements
Shicheng Wan (*Harbin Engineering University*); *Ekaterina E. Maslova* (*ITMO University*); *Mikhail V. Rybin* (*ITMO University*); *Jinhui Shi* (*Harbin Engineering University*);

13:35 Spin Topological Photonic Crystal Devices for On-chip Terahertz 6G Communication
Yu Zhang (*Tianjin University*); *Hongyi Li* (*Tianjin University*); *Chunmei Ouyang* (*Tianjin University*);

00:00 Invited High-order Photonic Degeneracy Enables Topological Reconfiguration in Bound States in the Continuum
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*);

14:10 Invited Recent Advances in GST-based Photonics: From Reconfigurable Metasurfaces to Active Optoelectronic Devices
Mikhail V. Rybin (*ITMO University*);

14:30 Invited Dynamic Radiation Pattern Manipulation with a Tunable Nonlocal Metasurface
Maksim Tumashov (*Harbin Engineering University*); *Alexander Zhuravlev* (*ITMO University*); *Xuchen Wang* (*Harbin Engineering University*); *Stanislav B. Glybovski* (*ITMO University*);

14:50 Invited Full-space Electromagnetic Control Based on Multifunctional Metasurfaces
Tingting Lv (*Harbin Engineering University*); *Enhui Cui* (*Northeast Petroleum University*); *Bing Yu* (*Northeast Petroleum University*); *Jinhui Shi* (*Harbin Engineering University*);

15:10 Active Reconfigurable Intelligent Surface Design
Min Li (*Tianjin University*);

Session 3P8b
Intelligent Design and Intelligent Control of Electromagnetic Metamaterials

Thursday PM, July 30, 2026

Room 8 - CR 11

Organized by Ruichao Zhu, Weihan Li

Chaired by Ruichao Zhu, Weihan Li

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

16:20 Metamaterial-based Designs of Intelligent Electromagnetic Control and Flexible Systems
Weihan 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*);

00:00 A Retrieval-augmented Generation Method Based on Multi-engine, Multi-strategy, and Multi-source Heterogeneous Knowledge Bases
Jia-Wei Ren (*Beijing Foreign Studies University*); *Zuowen Li* (*Beijing Foreign Studies University*); *Jian Li* (*Beijing Foreign Studies University*); *Juncai Dai* (*Beijing Foreign Studies University*);

00:00 Multispectral Digital Camouflage Metasurface Design Based on Reinforcement Learning and Structural Pixelation
Huiting Sun (*Air Force Engineering University*); *Ruichao Zhu* (*Air Force Engineering University*); *Jun Wang* (*Air Force Engineering University*); *Yuxiang Jia* (*Air Force Engineering University*); *Leyan Li* (*Air Force Engineering University*); *Peizhou Hu* (*Air Force Engineering University*); *Yang Yu* (*Air Force Engineering University*); *Yujuan Wei* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 An Optically Transparent Reconfigurable Metasurface with Joint Amplitude and Phase Modulations
Zuntian Chu (*Air Force Engineering University*); *Xinqi Cai* (*Air Force Engineering University*); *Tiefu Li* (*Air Force Engineering University*); *Ruichao Zhu* (*Air Force Engineering University*); *Huiting Sun* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 A Study of DNN-based Design Methods for TTO Devices
Zhang Heng (*National University of Defense Technology*);

Session 3P9
Nonlinear, Topological Metamaterials and beyond 1 & 2

Thursday PM, July 30, 2026

Room 9 - CR 12

Organized by Yu Luo, Zhuo Li

Chaired by Hao Hu

13:00 Keynote Emergence and Ultrafast Modulation of Optically Induced Quasi-bound States in the Continuum Resonances
Stefan Alexander Maier (*Monash University*);

00:00 Elastic Multi-dimensional Security for Wireless Communications Using Space-time Modulated Metamaterial
Yujie Liu (*Nanjing University of Aeronautics and Astronautics*); *Xiaojian Fu* (*Southeast University*);

00:00 Invited Broadband and Low-loss TE-pass Polarizer with High Fabrication Tolerance Using a Hybrid Plasmonic Waveguide on LNOI
Songyan Hou (*Xidian University*);

00:00 Invited Integrated Broadband Nonlinear Optical Devices via Conformal Transformation Optics
Chunyu Huang (*Nanjing University of Aeronautics and Astronautics*); *Yu Luo* (*Nanjing University of Aeronautics and Astronautics*); *Hui Liu* (*Nanjing University*);

14:25 Casimir Force Variation Induced by Longitudinal Modes in Nonlocal Metals and Polar Dielectrics
Jieran Chen (*Nanjing University of Aeronautics and Astronautics*); *Youxiu Yu* (*Nanjing University of Aeronautics and Astronautics*); *Dongliang Gao* (*Soochow University*); *Hao Hu* (*Nanjing University of Aeronautics and Astronautics*);

00:00 Hot-electron Super-generators Enabled by Fano Plasmonic Coupling
Peihang Li (*Tsinghua University*); *Yue Li* (*Tsinghua University*);

14:55 Invited Plasmonic-enhanced Second Harmonic Generation of van der Waals Structures
Hong Liu (*Agency for Science, Technology and Research (A*STAR)*);

00:00 Invited Nonlinear Metasurface for HPM Protection Applications
Meijun Qu (*National Key Laboratory of Scattering and Radiation*);

16:00 Invited Topological Aspects of Time Photonic Crystals with Chiral Symmetry
Yukun Yang (*Nanjing University of Aeronautics and Astronautics*); *Hao Hu* (*Nanjing University of Aeronautics and Astronautics*);

16:20 Invited Electromagnetic Vectoriality Beyond Polarization
Wei Liu (*National University of Defense Technology*);

00:00 Invited Passive Non-reciprocal Metasurfaces Based on Independently Tunable Nonlinear Dual Bound States in the Continuum
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*);

17:00 Reconfigurable Finite Barrier Bound States in Lithium Niobate-based Photonic Crystals
Yiru Du (*Nanjing University of Aeronautics and Astronautics*); *Zhixiong Xie* (*Nanjing University of Aeronautics and Astronautics*); *Hao Hu* (*Nanjing University of Aeronautics and Astronautics*);

17:15 Invited Quantitative Optical Identification of Chemical Liquids Enabled by Metasurface-generated Vortex Wavefronts
Hongliang Li (*Chinese Academy of Sciences, Suzhou Institute of Nano-Tech and Nano-Bionics*); *Yuting Zhou* (*Tsinghua University*); *Xuechao Yu* (*Suzhou Institute of Nano-Tech and Nano-Bionics*); *Xun Guan* (*Tsinghua University*);

00:00 Coherent Manipulation of Second Harmonic Generation
Invited from Bilayer Meta-grating with Radiation Asymmetry
Ma Luo (*Guangdong Polytechnic Normal University*);

17:55 All-dielectric Metasurface Enabling Wavefront Manipulation Based on Two-photon Polymerization 3D Printing
Demin Ni (*Nanjing University of Aeronautics and Astronautics*); *Junkai Jiang* (*Nanjing University of Aeronautics and Astronautics*); *Yu Luo* (*Nanjing University of Aeronautics and Astronautics*); *Hao Hu* (*Nanjing University of Aeronautics and Astronautics*);

00:00 Metasurface Antennas-RIS Coordinated Communication for Complex Electromagnetic Environments in Coal Mines
Wang Yao (*Xi'an University of Science and Technology*); *Xiaojun Huang* (*Xi'an University of Science and Technology*);

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
Invited Temperature Measuring
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 Skyrmionic Optical Forces for Stable Separation and
Invited Transportation of Chiral Nanoparticles
Peng Shi (*Shenzhen University*);

14:00 Optical Manipulation Based on Metasurfaces
Invited
Tianyue Li (*The Hong Kong University of Science and Technology*);

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*); *Huajin Chen* (*Guangxi University of Science and Technology*); *Xiaohao Xu* (*Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences*); *Xiao Li* (*Southern University of Science and Technology*); *Jack Ng* (*Southern University of Science and Technology*); *Zhifang Lin* (*Fudan University*);

14:50 Time-reversal Invariant Topological Photonic Alloy
Ruili Feng (*Shanxi University*); *Lei Zhang* (*Shanxi University*); *Jun Chen* (*Shanxi University*);

15:05 Rotational Optomechanics with Structured Transverse Orbital Angular Momentum Light
Yanhui Hu (*ETH Zurich*);

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

00:00 Metalens Based High-resolution Microscopy
Invited
Gang Chen (*Chongqing University*);

16:20 Optical Metasurface for Multi-dimensional Light Manip-
Invited ulation and Imaging
Yinghui Guo (*Institute of Optics and Electronics, Chinese Academy of Sciences*);

16:40 Spatial Light Modulator via Optically Addressed Meta-
Invited surface
Hui Gao (*Huazhong University of Science and Technology*);

17:00 Dielectric Metasurfaces for Compact Optical Imaging
Invited
Mingze Liu (*Nanjing University*);

00:00 Long Focus Depth Dammann Grating
Invited
Wei Zhang (*Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences*);

17:40 Asymmetric Electromagnetic Manipulation via Multi-
Invited layered Janus Metasurfaces
Yijia Huang (*Sichuan Normal University*);

00:00 Geometry-robust high-Q Resonances via Guided Mode Metasurface
Chaoyang Wang (*Eastern Institute of Technology*); *Jiaju Wu* (*Hangzhou Dianzi University*); *Kang Zhou* (*Eastern Institute of Technology*);

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 Invited Complex Band Structure and Bound States in the Continuum
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 Univeristy*); *Zhanghua Han* (*Shandong Normal University*);

00:00 Invited Photonic Neuromorphic Computing Enabled by a BIC Metasurface
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 Invited Tunable Coupling Strength of Quasi-bound States in the Continuum in All-dielectric Metasurfaces
Guangyuan Li (*Beijing Institute of Technology*); *Rixing Huang* (*Beijing Institute of Technology*); *Zhiyu Chang* (*Beijing Institute of Technology*); *Zhenrong Zhang* (*Guangxi University*);

00:00 Narrowband Absorber Based on Dielectric-Mxene Hybrid BIC Metasurface
Shubhanshi Sharma (*Indian Institute of Technology Kharagpur*); *Monica Pradhan* (*Indian Institute of Technology Kharagpur*); *Aviad Katiyi* (*Ben-Gurion University of the Negev*); *Alina Karabchevsky* (*Ben-Gurion University of the Negev*); *Shailendra Kumar Varshney* (*Indian Institute of Technology Kharagpur*);

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*); *Jiaguang 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*); *Jiaguang 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*); *Haotian Ling* (*Aerospace Information Technology University*); *Xinjie Wang* (*Shandong University*); *Yuehong Xu* (*Aerospace Information Technology University*); *Jianping Qiao* (*Shandong Normal University*); *Yifei Zhang* (*Shandong University*);

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 Invited — Super-resolving Frequency Sensing via Mode-selective Quantum Memory
Shicheng Zhang (*Imperial College London*); *Aonan Zhang* (*Imperial College London*); *Ilse Maillette De Buy Wenniger* (*Imperial College London*); *Paul M. Burdekin* (*Imperial College London*); *Steven Sagona-Stophel* (*Imperial College London*); *Anindya Rastogi* (*Imperial College London*); *Sarah E. Thomas* (*Imperial College London*); *Ian A. Walmsley* (*Imperial College London*);

00:00 Invited — Receiving of the Enhanced Loran Time Service Signals 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*);

13:40 Invited — High-performance Cold-atom Quantum Memory
Yunfei Wang (*South China Normal University*);

14:00 Invited — Quantum-memory-enhanced Metrology — Spectral Superresolution and Electrometry Robust Against Detection Losses
Mateusz Mazelanik (*University of Warsaw*); *S. Kurzyna* (*University of Warsaw*); *B. Niewelt* (*University of Warsaw*); *W. Wasilewski* (*University of Warsaw*); *R. Demkowicz-Dobrzanski* (*University of Warsaw*); *M. Parniak* (*University of Warsaw*);

14:20 Invited — Reaching Heisenberg Scaling in Optical Magnetometry with Measurement-induced Correlations as a Quantum Resource
Georg Engelhardt (*International Quantum Academy*);

14:40 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*);

00:00 Memory-assisted Nonlocal Interferometer Towards Long-baseline Telescopes
Bin Wang (*University of Science and Technology of China*); *Xi-Yu Luo* (*University of Science and Technology of China*);

00:00 Hybrid Quantum Network for Sensing in the Acoustic Frequency Range
Jun Jia (*University of Copenhagen*);

Session 3P12b
Quantum Photonics

Thursday PM, July 30, 2026

Room 12 - CR 16

Organized by Xiaosong Ma, Qin Wang

16:00 Invited — Topological and Quantum Physics in Optomechanics
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 lnstitute for Multidisciplinary Sciences*); *F. Javier García de Abajo* (*ICFO — Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology*);

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*);

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 Chu* (*International Quantum Academy*); *Ji Jiang* (*International Quantum Academy*); *Wenhui Huang* (*International Quantum Academy*); *Yongqi Liang* (*International Quantum Academy*); *Jiawei Qiu* (*International Quantum Academy*); *Xuandong Sun* (*International Quantum Academy*); *Ziyu Tao* (*International Quantum Academy*); *Libo Zhang* (*International Quantum Academy*); *Yuxuan Zhou* (*International Quantum Academy*); *Yuanzhen Chen* (*International Quantum Academy*); *Weijie Guo* (*International Quantum Academy*); *Xiayu Linpeng* (*International Quantum Academy*); *Song Liu* (*International Quantum Academy*); *Wenhui Ren* (*International Quantum Academy*); *Youpeng Zhong* (*International Quantum Academy*); *Jingjing Niu* (*International Quantum Academy*); *Haidong Yuan* (*International Quantum Academy*); *Dapeng Yu* (*International Quantum Academy*);

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 Univeristy*);

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

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

16:15 Quantum-enhanced Optical Time-domain Reflectometer for Hollow-core Fiber Testing
Qi Zhang (*Tianfu Jiangxi Laboratory*);

16:30 Quantum Teleportation over Hollow-core Fiber Links
Qiang Zhou (*University of Electronic Science and Technology of China*);

16:45 On-chip Time-bin to Path Encoding Converter via Thin-film Lithium Niobate Photonics Chip
Xiaosong Ren (*Tsinghua University*); *Xiaotong Zou* (*Tsinghua University*); *Xiaole Zhang* (*Tsinghua University*); *Wei Zhang* (*Tsinghua University*);

17:00 Millimeter-accuracy 3D Quantum Correlation Imaging of Targets
Si Shen (*Southwest Institute of Technical Physics*); *Jiandong Chen* (*Southwest Institute of Technical Physics*); *Zichang Zhang* (*Southwest Institute of Technical Physics*); *Mengke Cai* (*Southwest Institute of Technical Physics*); *Shijie Deng* (*Southwest Institute of Technical Physics*); *Qiang Xu* (*Southwest Institute of Technical Physics*); *Jing Qiu* (*Southwest Institute of Technical Physics*); *Shuai Huang* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*);

17:15 Certified Randomness from Uncharacterized Source and Measurement
Xing Lin (*University of Hong Kong*); *Rong Wang* (*The University of Hong Kong*); *Zhen Qiang Yin* (*University of Science and Technology of China*); *Shuang Wang* (*University of Science and Technology of China*);

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

00:00 Efficient and Broadband Quantum Frequency Comb Generation in a Monolithic AlGaAs-on-insulator Microresonator
Xiaodong Zheng (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Xu Jing* (*Nanjing Normal University*); *Chenbo Liu* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Yufu Li* (*Nanjing Electronic Devices Institute*); *Runqiu He* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Lina Xia* (*Nanjing Normal University*); *Fei Wang* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Yuechan Kong* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Tangsheng Chen* (*Nanjing Electronic Devices Institute*); *Jiayun Dai* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Liangliang Lu* (*Nanjing Normal University*); *Bin Niu* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*);

00:00 Photon Pairs Generation Based on Cascaded PPLN Waveguides
Chen-Zhi Yuan (*Wuhan Institute of Technology*); *Mei-Mei Wang* (*Wuhan Institute of Technology*); *Rui-Bo Jin* (*Hunan Normal University*);

Session 3P14
Infrared and Terahertz Physics, Devices, and Technologies 1 & 2

Thursday PM, July 30, 2026

Room 14 - VIP R5

Organized by Chuantao Zheng, Su Xu, Qun Ren

13:00 Terahertz Multidimensional Surface Wave Manipulation Based on Programmable Metadevices
Yiming Wang (*Nankai University*); *Fei Fan* (*Nankai University*);

13:15 Invited Mid-infrared Lasing in HgCdTe Quantum Well Heterostructures under Different Regimes of Optical Pumping
Vladimir V. Rumyantsev (*Institute for Physics of Microstructures of RAS*); *K. A. Mazhukina* (*Institute for Physics of Microstructures of RAS*); *Vladimir V. Utochkin* (*Institute for Physics of Microstructures RAS*); *Alexander A. Dubinov* (*Institute for Physics of Microstructures of RAS*); *V. Ya. Aleshkin* (*Institute for Physics of Microstructures of RAS*); *A. A. Yantser* (*Institute for Physics of Microstructures of RAS*); *M. A. Fadeev* (*Institute for Physics of Microstructures of RAS*); *A. A. Razova* (*Institute for Physics of Microstructures of RAS*); *Nikolay N. Mikhailov* (*A. V. Rzhanov Institute of Semiconductor Physics of SB RAS*); *Sergey V. Morozov* (*Institute for Physics of Microstructures, Russian Academy of Sciences*);

13:35 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*);

13:55 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*);

14:15 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*);

14:35 Robust Intrinsic Chirality Supported by off-$\mathbf{\Gamma}$ BICs and
Invited Topological Charge Abrupt Change Induced by Topological Phase Transition
Chunying Guan (*Harbin Engineering University*); *Keda Wang* (*Harbin Engineering University*); *Jianlong Liu* (*Harbin Engineering University*); *Jinhui Shi* (*Harbin Engineering University*);

14:55 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*);

15:15 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*);

16:00 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*);

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

00:00 Multi-resonant Metasurface for Advanced Terahertz
Invited Sensing
Quanlong Yang (*Central South University*); *Yapeng Dou* (*Tianjin University*); *Ying Zhang* (*Yunnan Normal University*); *Jiaguang Han* (*Tianjin University*);

00:00 Toroidal Dipole-driven Dual-channel Terahertz Meta-
Invited surface: From Symmetry-protected BIC to Practical Biosensing and Communication
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 Monolithic Plasmonic Metasurface Infrared Detectors
Invited
Shiyu Yang (*Shanghai Jiao Tong University*); *Yaping Dan* (*Shanghai Jiao Tong University*);

00:00 Dual-function Switchable Terahertz Surface Plasmon Device Driven by a GST Metasurface
Guanghong Xu (*Tianjin University of Technology and Education*); *Quan Li* (*Tianjin University of Technology and Education*); *Yisheng Dong* (*Tianjin University*); *Shuang Wang* (*Tianjin University*); *Xueqian Zhang* (*Tianjin University*);

00:00 Enhanced Spontaneous Polarization in Directional Interlayer Sliding 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*);

00:00 Microcavity-enhanced Optoelectronic Fiber Photoacoustic Spectroscopy for ppb-level Trace Gas Sensing
Yafei Li (*Jinan University*); *Yanyu Jiang* (*Jinan University*); *Minghui Du* (*Jinan University*); *Chuantao Zheng* (*Jilin University*); *Tuan Guo* (*Jinan University*);

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 18

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

Chaired by Jingsong Huang

13:00 Invited High-performance Organic Single-crystal Semiconductors for Optoelectronic Applications
Jing Feng (*Jilin University*);

13:20 Invited Light-emitting Materials: Perovskite, I-III-VI QDs, and Hyperfluorescent Organics for Next-generation LEDs
Guojie Wang (*University of Science and Technology Beijing*);

13:40 Invited Improving the Performance of Organic Semiconductor Optoelectronic Devices via a Novel Giant Polyoxomolybdate Bifunctional Interlayer Material
Jing Qiu (*Jilin University*); *Donal D. C. Bradley* (*University of Oxford*); *Jingsong Huang* (*University of Oxford*); *Lixin Wu* (*Jilin University*); *Fenghong Li* (*Jilin University*);

13:40 Invited Solution-processed MicroOLEDs
Guohua Xie (*Xiamen University*); *Qin Xue* (*Central China Normal University*);

14:00 Invited Diketopyrrolopyrrole (DPP)-based Ambipolar OMIECs for Logic Circuits
Jian Liu (*Changchun Institute of Applied Chemistry, Chinese Academy of Sciences*);

14:20 Invited The Treatment of Self-assembled Monolayers for Efficient and Stable Inverted Perovskite Solar Cells
Feng Yan (*The Hong Kong Polytechnic University*);

14:40 Invited Efficient Flexible Blue Perovskite Electroluminescence via Surface Crystal Orientation Engineering
Naizhen Li (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Kai Sun* (*South China Normal University*); *Xiaoyang Guo* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Ying Lv* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Tienan Wang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Weili Yu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Zhen Wang* (*South China Normal University*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

15:00 Invited Luminescent Radical Materials and Devices
Feng Li (*Jilin University*);

15:20 Invited Organic Single-crystal Transistors for Bionic Visual Systems
Jiansheng Jie (*Soochow University*);

16:00 Invited Enhanced Amplified Spontaneous Emission in Organic Films Using a Single-sided Bragg Reflector and Air Cladding
Wentian Zhang (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Tienan Wang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Keling Zhang* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xinxin Yao* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Ying Lv* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xiaoyang Guo* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

16:20 Invited Giant Nonlinear Raman Responses from Organic Semiconductors
Yi Jiang (*Nanjing University of Posts and Telecommunications*); *Wenyong Lai* (*Nanjing University of Posts and Telecommunications*);

16:40 Invited Fabrication and Applications of Multicolor Carbon Dot-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 Devices
Qi Zhang (*Nanjing University of Posts and Telecommunications*); *Zhiyuan Zhang* (*South China University of Technology*); *Ruidong Xia* (*Nanjing University of Posts and Telecommunications*); *Junbiao Peng* (*South China University of Technology*);

17:15 Inorganic Electrochromic Materials and Devices: Towards Flexible, Colorful, and Dynamic Optothermal Regulation
Invited
Ying Lv (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*); *Xingyuan Liu* (*Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences*);

17:35 Direct Photolithography of Quantum Dots via Photoclick Chemsitry for High-resolution QLEDs
Invited
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 19

Organized by Tecla Gabbrielli, Jacopo Pelini, Zhen Wang

Chaired by Zhen Wang

13:00 Quantum Phase Estimation with Integrated Photonics Circuits
Invited
Valeria Cimini (*Sapienza University of Rome*); *M. Valeri* (*Sapienza University of Rome*); *E. Polino* (*Sapienza University of Rome*); *S. Piacentini* (*Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)*); *F. Ceccarelli* (*Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)*); *G. Corrielli* (*Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)*); *R. Osellame* (*Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR)*); *N. Spagnolo* (*Sapienza University of Rome*); *F. Sciarrino* (*Sapienza University of Rome*);

00:00 High Saturation Regime Limit for Molecular Single-photon Sources
Hugo Levy-Falk (*National Institute of Optics (CNR-INO)*); *Daniele De Bernardis* (*National Institute of Optics (CNR-INO)*); *Elena Fanella* (*National Institute of Optics (CNR-INO)*); *Louise Morlaes* (*National Institute of Optics (CNR-INO)*); *Marco Arzilli* (*National Institute of Optics (CNR-INO)*); *Maja Colautti* (*National Institute of Optics, CNR-INO*); *Costanza Toninelli* (*National Institute of Optics, CNR-INO*);

13:35 Preparation and Characterization of Non-Gaussian Quantum States of Motion in a Mechanical Resonator
Invited
Matteo Fadel (*ETH Zürich*);

13:55 Design and Optimization of a Vibration Insensitive Optical Ring Cavity for CQED Experiments
Enlong Wang (*National University of Defense Technology*); *Xiaojuan Mo* (*Hefei University of Technology*); *Sicheng Dai* (*Hefei University of Technology*);

00:00 Memory-based Quantum Networks: Prospects, Challenges, and New Efforts in Florence
Emanuele Distante (*Università degli Studi di Firenze*); *Maximilian Schemmer* (*European Laboratory for Nonlinear Spectroscopy (LENS)*); *Natalia Bruno* (*European Laboratory for Nonlinear Spectroscopy (LENS)*);

00:00 Unveiling Mid-infrared Radiation at the Standard Quantum 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*);

14:40 Laser Spectroscopy Technologies for Deep Space Exploration and Their Applications
Invited
Nailiang Cao (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*);

00:00 QCL-based Self-mixing Platforms for Communication and Sensing
Chenghong Zhang (*CNR-INO, National Institute of Optics*); *Tecla 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*);

15:15 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*);

16:00 Single-cavity Dual-comb Generation and Terahertz Spectroscopy
Invited
Jie Chen (*Taiyuan University of Technology*);

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 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*);

16:55 Integrated 1-Tb/s/$\boldsymbol{\lambda}$ Coherent Optical Transmission and Forward Vibration Sensing Using DFB Lasers with Combined Linewidth of 21.4 MHz
Yixiao Zhu (*Shanghai Jiao Tong University*); *Chenbo Zhang* (*Peking University*); *Yi Zou* (*Peking University*); *Xiang Cai* (*Peking University*); *Xiansong Fang* (*Peking University*); *Jingjing Lin* (*Peking University*); *Xian Zhou* (*University of Science and Technology Beijing*); *Fan Li* (*Sun Yat-sen University*); *Zhangyuan Chen* (*Peking University*); *Xiaopeng Xie* (*Peking University*); *Weisheng Hu* (*Shanghai Jiao Tong University*); *Fan Zhang* (*Peking University*);

17:10 Cavity-enhanced Dual-comb Photoacoustic/Photothermal Spectroscopy for Gas Detection
Zhen Wang (*Harbin Institute of Technology*); *Yue Yan* (*The Chinese University of Hong Kong*); *Wei Ren* (*The Chinese University of Hong Kong*);

00:00 Invited Pushing the Limits of Brillouin Microscopy: High Spatiotemporal-resolution Sensing of Biomechanics
Fan Yang (*Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences.*);

17:45 Invited Graphene-based Integrated Microwave Photonics for the Next Generation Sub-THz Links
Alberto Montanaro (*Consorzio Nazionale Interuniversitario per le Telecomunicazioni*);

00:00 Evidence of Squeezing in Semiconductor Lasers
Daniele Nello (*Politecnico di Torino*);

00:00 Advancing Planetary Atmospheric Insights Using Tunable Laser Spectroscopy Technology
Nailiang Cao (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Xiang Li* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Wenzhen Lu* (*Macau University of Science and Technology*); *Zhenyu Xu* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Qiang Wang* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Lu Yao* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Jun Ruan* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Chi Zhang* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Mai Hu* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Wen Liu* (*Zhejiang Normal University*); *Rongji Li* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Hao Deng* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Xueli Fan* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Yan Li* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Zhen Sun* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Jiayi Hu* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Wei Shen* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Xingping Wang* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Wenxiang Yin* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Kan Chen* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Xueqiang Hou* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Qichen Wang* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Zhenping Sui* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Chunxia Wu* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*); *Ruifeng Kan* (*Hefei Institutes of Physical Science, Chinese Academy of Sciences*);

Session 3P17a
Recent Advances in Optical Metasurfaces 2

Thursday PM, July 30, 2026

Room 17 - CR 20

Organized by Fei Ding, Cheng Zhang

Chaired by Fei Ding

13:00 Invited Physical Unclonable Functions Based on Photonic Crystal Slabs
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
Invited Transmission Vector Optimization in Dielectric Metasurfaces
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-
Invited plane Symmetry Perturbation
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-
Invited broken Bilayer Metgratings
Ze-Peng Zhuang (*Fudan University*);

15:15 Engineering Asymmetries and Anisotropies in Nonlinear
Invited Plasmonic Metasrufaces
Sergejs Boroviks (*Swiss Federal Institute of Technology Lausanne (EPFL)*); *Olivier J. F. Martin* (*Swiss Federal Institute of Technology Lausanne (EPFL)*);

Session 3P17b
Non-Hermitian Optics, Photonics, and Electrodynamics

Thursday PM, July 30, 2026

Room 17 - CR 20

Organized by Minye Yang, Xuetao Gan

Chaired by Minye Yang

00:00 Twisted Light from Topological Chiral Exceptional
Invited Points in a Nanolaser Array
Kaiwen Ji (*Université Bordeaux*); *Melissa Hedir* (*Laboratoire des Technologies de la Microelectronique, CNRS*); *Ge Li* (*College of Staten Island*); *Ramy A. El-Ganainy* (*Michigan Technological University*); *Alejandro M. Yacomotti* (*Université Bordeaux*);

00:00 Multi-dimensional Light Field Manipulation with Opti-
Invited cal Metasurfaces: From Free Space to On-chip Integration
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
Invited Photodetectors
Xiaoqing Chen (*Northwestern Polytechnical University*); *Xuetao Gan* (*Northwestern Polytechnical University*);

00:00 Photonic Neuromorphic Computing Using Symmetry-protected Zero Modes in Coupled Nanolaser Arrays
Kaiwen Ji (*Université Bordeaux*); *Giulio Tirabassi* (*Universitat Politécnica 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*);

18:03 Parity-time-symmetric Bimorphic Topological Insulators
Shuming Zhang (*Zhejiang University*); *Tuo Wan* (*Zhejiang University*); *Zhaoju Yang* (*Zhejiang University*);

18:18 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*);

Session 3P18a
Advanced Photonic Technologies for Sensing & Imaging Applications 2

Thursday PM, July 30, 2026

Room 18 - VIP R8

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

Chaired by Marco Marangoni

13:00 Development of Frequency-stabilized Cavity Ring-down Spectroscopy for Direct Measurement of HO_2 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 Sciences*); *Bo Fang* (*Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy 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*);

13:15 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 Sciences*); *Weimin Duan* (*Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy Sciences*); *Heng Zhang* (*Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy 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*);

13:30 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*);

13:45 Highly Sensitive Spectroscopic Detection of SF_6 Decomposition Gases for Early Fault Warning in GIS Equipment
Bo Sun (*Taiyuan University of Technology*); *Hongpeng Wu* (*Shanxi University*); *Angelo Sampaolo* (*University and Politechnic 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*);

14:00 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)*);

14:15 Compressing Optical Systems with Engineered Spaceplates
Ryan Hogan (*Nanjing University*);

14:30 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*);

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*);

Session 3P19
Topological Nanophotonics 2

Thursday PM, July 30, 2026

Room 19 - CR 27

Organized by Cuicui Lu, Zhiwei Guo, Lin Chen

13:00 Invited Measurement-induced Topology in Photonic Lattices
Quancheng Liu (*Shandong University*); *Feng Chen* (*Shandong University*);

13:20 Invited Observation of Spin-locking Effect of Light from Brownian Nanoparticles
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 Invited Fundamental Properties of Surface Polaritons on Low Symmetry Materials
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 Invited Hopf Exceptional Points and Hopf Exceptional Rings in 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 Invited Advanced Near-field Optical Microscopy for the Discovery of Moiré Superlattices and Beyond
Peng Shi (*Shenzhen University*);

15:10 Invited Manipulation of Photonic Topological Edge and Corner States via Trivial Claddings
Hai-Xiao Wang (*Ningbo University*);

16:00 Invited Cavity-controlled Nonlinear Landau Fan in Graphene
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 (*School of Physics Science and Engineering*); *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 Invited Optical Skyrmions in Single Microcavities Formed by Photonic Spin-orbit Coupling
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)*);

00:00 Invited Chirality Symmetry Breaking in a Microring with a Dual-mirror System
Keya Zhou (*Harbin Institute of Technology*);

00:00 Invited Programmable Chiral Edge States and Photonic Convolution in Synthetic Frequency Dimension
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 Invited Enhancing and Directionally Controlling the Photoluminescence of 2D Materials Using Plasmonic Nanocavities
Fajun Xiao (*Northwestern Polytechnical University*);

13:20 Invited Light-matter Interaction in UCNPs in Weak and Strong-coupling Regimes
Xiaolan Zhong (*Beihang University*);

13:40 Invited Collective Optomechanical Effects in Metallic Nanocavity-enhanced Raman Scattering
Yuan Zhang (*Zhengzhou University*); *R. Esteban* (*Center for Material Physics*); *S. P. Zhang* (*Wuhan University*); *J. Baumberg* (*Wuhan University*); *J. Azipurua* (*Wuhan University*);

14:00 Invited Efficient Second Harmonic Generation in a Hybrid Plasmonic Waveguide
Junjun Shi (*Henan University*);

14:20 Invited Single-atom Resolution for Surface and Subsurface Defects through Tip-enhanced Raman Spectromicroscopy
Yao Zhang (*University of Science and Technology of China*);

14:40 Invited Nanoparticle-on-Mirror Architectures for Local and Remote Spectroscopy
Yang Li (*Shenzhen University*); *Jinqiao Wu* (*Shenzhen University*); *Jiawei Sun* (*Shenzhen University*); *Shuai Chen* (*Shenzhen University*); *Zhiwei Hu* (*East China Normal University*); *Wen Chen* (*East China Normal University*); *Wei Dai* (*Wuhan University*); *Hongxing Xu* (*Wuhan University*);

15:00 Boosting Nonlinear Light Emission with Hybrid Plasmonic Nanocavities
Tianzhu Zhang (*Institute of Physics, Henan Academic of Science*);

15:15 Invited Room-temperature Strong Exciton-plasmon Coupling in 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*);

16:00 Invited Anisotropic Propagation and Ultrafast Dynamics of Exciton-polaritons
Jin-Hui Zhong (*Southern University of Science and Technology*);

16:20 Invited Extreme Nanophotonics: From Molecular Sensing Platforms 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 Invited Ultrafast Raman Detection of Small Molecules by Plasmonic 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 Khozeymeh 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 Enhanced Optical Biosensing
Rui Fang (*Eindhoven University of Technology*); *Elisabetta Bodo* (*Eindhoven University of Technology*); *Andy Van Moll* (*Eindhoven University of Technology*); *Koen Valk* (*Eindhoven University of Technology*); *Yuqing Jiao* (*Eindhoven University of Technology*); *Peter Zijlstra* (*Eindhoven University of Technology*);

17:15 Invited Active Tuning of Near-field Heat Transfer in Graphene Sheets and Nanoribbons with Drift Currents
Eduardo J. C. Dias (*University of Southern Denmark*); *Joel D. Cox* (*University of Southern Denmark*);

00:00 Regulation of Upconversion Luminescence of Rare Earth Ions by Plasmonic nanocavity
Huan Chen (*Shaanxi Normal University*);

00:00 Invited Self-assembled Surface-accessible Plasmonic Nanostructures 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 Invited Harnessing Disorder for Spatiotemporal Coherence and Robust Optical Catastrophes
Hongtao Wang (*Singapore University of Technology and Design*);

13:20 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*);

13:35 Invited Disordered Metasurfaces for Infrared Silicon Photodetectors
Zhaogang Dong (*Singapore University of Technology and Design*);

13:55 Invited Spatiotemporally Structured Light Fields
Qiwen Zhan (*Westlake University*);

14:15 Invited Second-harmonic Wavefront Shaping with Lithium Niobate Metasurfaces
Fei Ding (*Eastern Institute of Technology*);

14:35 Invited Upconversion Photonics-based Sensing and Imaging
Fan Wang (*Beihang University*);

14:55 Invited Turbulence-resilient Data Transmission Using Steady Optical Vortex Beam with Extended Focus
Yiqian Yang (*Tsinghua University*); *Liangcai Cao* (*Tsinghua University*);

15:15 Invited Disordered Near-field Metasurfaces for Light Shaping
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*);

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 Invited — Guiding Waves through Chaos: Universal Bounds for Targeted Mode Transport
Cheng-Zhen Wang (*Lanzhou University*);

16:20 Invited — On-chip Pl-excitonic Materials: Manipulating Quantum States in a Chiral Emitters and Plasmonic Nano-cavities Strongly Coupled System
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 Invited — Tailoring Branched Flow of Light in Liquid Crystals
Jinhui Chen (*Xiamen University*);

17:00 Invited — Origins of Beam Self-cleaning Robustness in GRIN Multimode Fibers
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 Invited — Chirped Nonautonomous Solitons on a Continuous-wave Background
Qin Zhou (*Wuhan Textile University*);

00:00 Invited — Soliton Attractors in the Mode-locked Fiber Laser
Chao-Qing Dai (*Zhejiang A&F University*); *Xue-Peng Wang* (*Zhejiang A&F University*); *Li-Jia Zhuang* (*Zhejiang A&F University*);

00:00 Invited — Dynamics of Multiple Solitons in Fiber Laser
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 Invited — Nonlinear Optical Properties of 2D Materials and the Application in Ultrafast Lasers
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

00:00 Enhancing MINFLUX 3D Localization Accuracy by Double-helix Point Spread Function
Anping Xiao (*Zhejiang Normal University*); *Chuankang Li* (*Zhejiang Normal University*); *Daru Chen* (*Zhejiang Normal University*); *Cuifang Kuang* (*Zhejiang University*);

00:00 ELF Magnetic-resonant Wireless Power Transfer through Thick Ferromagnetic Steel Barriers for Sealed Vessel Monitoring
Yiran Ma (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jin Zhou* (*Southwest University of Science and Technology*); *Liming Yu* (*Southwest University of Science and Technology*); *Yilin Huang* (*Southwest University of Science and Technology*); *Chenhao Fang* (*Southwest University of Science and Technology*);

00:00 Optimized Triple-Phase-Shift Control for Hybrid Three-level DC/DC Converters
Cheng Chen (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yong Li* (*Southwest University of Science and Technology*); *Lei Zhao* (*Southwest University of Science and Technology*); *Haoyu Zhang* (*Southwest University of Science and Technology*); *Qifeng Wu* (*Southwest University of Science and Technology*); *Yuying Zhu* (*Southwest University of Science and Technology*);

00:00 A Feasible-region-constrained Lightweight Integrated Receiver Design Method for Ducted-fan UAV Wireless Charging
Guozheng Zhang (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Chengcheng Wen* (*Southwest University of Science and Technology*); *Qi Liu* (*Southwest University of Science and Technology*); *Lei Zhao* (*Southwest University of Science and Technology*);

00:00 A Damping Strategy for Resonance Suppression in Filters of High-voltage Piezoelectric Drive Amplifiers
Mingcan Li (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Qiu He* (*Southwest University of Science and Technology*); *Cheng Chen* (*Southwest University of Science and Technology*); *Qifeng Wu* (*Southwest University of Science and Technology*);

00:00 Internal Short Circuit Detection in Lithium-ion Batteries Based on a Distributed BMS Architecture and Adaptive Resistance Estimation
Chengcheng Wen (*Southwest University of Science and Technology*); *Guozheng Zhang* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*);

00:00 A PLL-stabilized Spoof Surface Plasmon Polariton Interconnect for Energy-efficient Sub-THz CMOS Links
Keshan Guo (*Guangzhou University*); *Lin Peng* (*Guangzhou University*); *Yuming Su* (*Guangzhou University*); *Yibo Li* (*Guangzhou University*); *Yuqian Han* (*Guangzhou University*); *Mengding Guo* (*Guangzhou University*); *Yufan Xie* (*Guangzhou University*);

00:00 A Sub-THz Energy-efficient CMOS THz Inter-chip Interconnect Using SSPP Waveguides and a PLL-synchronized SSPP Oscillator
Rui Yu (*Guangzhou University*); *Zicheng Liang* (*Guangzhou University*); *Xiuqiong Li* (*Guangzhou University*); *Yisi Yang* (*Guangzhou University*); *Rui Ma* (*Guangzhou University*); *Yifan Li* (*Guangzhou University*);

00:00 Generalized Unified $\boldsymbol{S}$-parameter Calculation Method for Rectangular Waveguides Based on Frequency-domain Multimode Expansion
Shiyao Wang (*Xi'an University of Technology*); *Xile Chen* (*Xi'an University of Technology*); *Wei Quan* (*Xi'an University of Technology*);

00:00 Influence of Plasma Parameters on Microwave Radiation Matching with Plasma in a Gasdynamic ECR Ion Source
Vadim A. Skalyga (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Egor D. Gospodchikov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS)*); *I. V. Izotov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *A. V. Polyakov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. S. Vybin* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*);

00:00 Spectrum Occupancy Prediction and Dynamic Access Method Based on Hidden Markov Model
Mengqiang Li (*Hainan University*); *Zhenjia Chen* (*Hainan University*); *Gan Luan* (*Hainan University*);

00:00 A Broadband Transmissive Metasurface for 45° Linear Polarization Rotation Based on Amplitude and Phase Balance
Bochen Wu (*Tongji University*); *Haoyu Gao* (*Tongji University*); *Cheng Chen* (*Tongji University*);

00:00 Interference-induced Entanglement Engineering on a Metasurface
Rui Zhong (*Nanjing University*); *Ya-Jun Gao* (*Nanjing University*); *Yi-Fei Liu* (*Nanjing University*); *Ruwen Peng* (*Nanjing University*); *Mu Wang* (*Nanjing University*);

00:00 High-performance UV Photodetector Based on $\boldsymbol{\beta}$-$\mathbf{Ga_2O_3}$/GaN Heterojunction Prepared by a New Route of Reverse Substitution Growth
Yurui Han (*Northeast Normal University*); *Bingsheng Li* (*Northeast Normal University*);

00:00 Low-profile Omnidirectional Vertical Polarization Antenna with Gain Enhancement in the Horizontal Plane
Longjian Zhou (*Southwest University of Science and Technology*); *Haonan Huang* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*);

00:00 Fast Gridless Clutter Suppression for Airborne Bistatic Radar via 2D-IVDST
Junyao Hu (*National University of Defense Technology*); *Jiameng Pan* (*National University of Defense Technology*); *Qinglong Bao* (*National University of Defense Technology*);

00:00 Modeling of Electromagnetic Scattering of Doppler Characteristics for Sea Surface with Breaking Waves
Pengbo Du (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Jianbo Cui* (*Ocean University of China*); *Yanmin Zhang* (*Ocean University of China*); *Fanwei Su* (*Ocean University of China*); *Honglei Zheng* (*Ocean University of China*);

00:00 Efficient Design of Broadband RF Matching Networks Using Smith Chart-guided Reinforcement Learning
Pengfei Yu (*East China Research Institute of Electronic Engineering*); *Lai-Fu Jin* (*East China Research Institute of Electronic Engineering*);

00:00 Design of a Transmission-reflection-integrated Bifunctional Metasurface by Hybridizing the Geometric Phase and the Propagation Phase
Zhaotang Liu (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Carrier Phase Cycle Slip Detection for Shipborne GNSS under Polar Conditions
Benqiang Sun (*Shanghai Maritime University*); *Wei Liu* (*Shanghai Maritime University*); *Yuan Hu* (*Shanghai Ocean University*); *Linjin Wu* (*Shanghai Maritime University*);

00:00 A Deep Learning Model for Reconstructing Subsurface Thermohaline Structure in the South China Sea from Multi-resolution Satellite Observations
Hao Wang (*Ocean University of China*); *Qing Xu* (*Ocean University of China*); *Xiaobin Yin* (*Ocean University of China*); *Huarong Xie* (*Nanjing University of Information Science and Technology*); *Letian Lv* (*Ocean University of China*); *Yanping Qin* (*Ocean University of China*); *Peng Mao* (*Ocean University of China*); *Yue Zhang* (*Ocean University of China*);

00:00 A Transformer-based Framework for Multi-sensor Track Fusion in Low-data-rate Radar Systems
Haoze Wang (*Beijing Institute of Technology*); *Changhao Liu* (*Beijing Institute of Technology*); *Yan Wang* (*Beijing Institute of Technology*);

00:00 Optimizing Metal-semiconductor Interface for $MoTe_2$-based Photodetectors with Broadband Sensitivity and Rapid Dynamics
Zijian Wang (*Jiangnan University*); *Jing Bai* (*Army Engineering University of PLA*); *Xingyu Zhou* (*Jiangnan University*); *Jialing Jian* (*Jiangnan University*); *Zhengjin Weng* (*Jiangnan University*); *Shaoqing Xiao* (*Jiangnan University*); *Haiyan Nan* (*Jiangnan University*);

00:00 A Massively Parallel 100-Channel On-chip Spectrometer via Single-bus Microring Arrays and Multi-FSR Computational Reconstruction
Haorui Liu (*Zhejiang University, Zijingang Campus*); *Long Zhang* (*Zhejiang University*); *Daoxin Dai* (*Zhejiang University*);

00:00 A New Framework for Estimating High-resolution Root-zone Soil Moisture Using the Soil Moisture Analytical Relationship: A Comparison between the Generalized Additive Model and a Machine-learning Fusion Strategy
Abba Aliyu Kasim (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*); *Qian-Yu Liao* (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*); *Pei Leng* (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*);

00:00 Nonlocal Optomechanics of Nanoparticles in the Hybrid Anapole State
Susanna Rozental (*Moscow Institute of Physics and Technology*); *Denis Kislov* (*Moscow Institute of Physics and Technology*); *Ilia M. Fradkin* (*Skolkovo Institute of Science and Technology*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Aleksandr Sergeevich Shalin* (*Moscow Institute of Physics and Technology*);

00:00 Joint Transceiver Optimization for Underwater Wireless Optical Communications
Lu Wang (*Tsinghua University*); *Jiaming Lin* (*Tsinghua University*); *Tongzheng Sun* (*Tsinghua University*); *Shuanghe Liu* (*Tsinghua University*); *Jian Song* (*Tsinghua University*); *Yuhan Dong* (*Tsinghua University*);

00:00 Contact Less Human Vital Signs Extraction Using mm-Wave Radar in Autonomous Vehicle
J. Valarmathi (*VIT University*);

00:00 The Forward Modeling for Microwave Non-destructive Testing of Electrically Large Anisotropic Objects
Saihang Qie (*Northwestern Polytechnical University*); *Changyou Li* (*Northwestern Polytechnical University*);

00:00 An Efficient 3D Inversion Algorithm for the Transient Electromagnetic Method with Induced Polarization Effects
Qi Zhao (*Shandong University*); *Shangbin Liu* (*Shandong University*); *Huaifeng Sun* (*Shandong University*);

00:00 Broadband Achromatic Metalens for the Short-wave Infrared
Yan He (*University of Glasgow*); *Adetunmise C. Dada* (*University of Glasgow*);

00:00 Research on Relativistic Backward-wave Oscillator Technology with Multi-mode Operation in Low Magnetic Fields
Kun Chen (*Northwest Institute of Nuclear Technology*); *Renzhen Xiao* (*Northwest Institute of Nuclear Technology*); *Yanchan Shi* (*Northwest Institute of Nuclear Technology*); *Xiangguo Wu* (*Northwest Institute of Nuclear Technology*);

00:00 End-to-end Complex-valued Signal Recovery for Radar ISRJ Suppression via Cascaded Unitary Autoencoders
Shuai Shi (*Shanghai Jiao Tong University*); *Feiming Wei* (*Shanghai Jiao Tong University*);

00:00 Light-driven Metasurface for Parallel Logic Operations via Time-space Modulation
Hongping Yuan (*Air Force Engineering University*); *Jian-Gang Liang* (*Air Force Engineering University*);

00:00 Ultralow-loss Etchless Silicon Carbide Integrated Photonics
Xuying Wang (*École Polytechnique Fédérale de Lausanne (EPFL)*);

00:00 Design of an S-band Broadband High-power Wave Radiation System Based on Power Synthesis
Jianglong Zhou (*Northwest Institute of Nuclear Technology*); *Tao Jiang* (*Northwest Institute of Nuclear Technology*); *Weida Bai* (*Northwest Institute of Nuclear Technology*); *Zhengfeng Xiong* (*Northwest Institute of Nuclear Technology (NINT)*); *Guodong Gao* (*Northwest Institute of Nuclear Technology*); *Feng Yan* (*Northwest Institute of Nuclear Technology*); *Wei Peng* (*Northwest Institute of Nuclear Technology*);

00:00 Hyperspectral Image Classification via Adaptive Physical Prior Generative Adversarial Networks
Haijun Jiang (*National University of Defense Technology*); *Xianyue Wang* (*National University of Defense Technology*); *Lei Lin* (*National University of Defense Technology*); *Hao Sun* (*National University of Defense Technology*);

00:00 Snow Depth Ensemble Forecasting and Data Assimilation Based on Conditional Diffusion Transformer
Xiaoyu Liu (*Nanjing University of Information Science and Technology*); *Yonghui Li* (*Institute of Atmospheric Physics, Chinese Academy of Sciences*); *Yunhao Fu* (*Nanjing University of Information Science and Technology*); *Lu Li* (*Sun Yat-sen University*); *Yujia Sun* (*Nanjing University of Information Technology*); *Wei Han* (*Center for Earth System Modelling and Prediction, CMA*);

00:00 Research on the Synergistic Mechanism of Myoelectric Sensing and Multi-channel Electrical Stimulation Based on Wearable Flexible Array
Changzheng Li (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Tianqi Zhao* (*Southwest University of Science and Technology*); *Qicao Chen* (*Southwest University of Science and Technology*);

00:00 A GPS-guided Adaptive Metasurface Based on a Perception-decision-response Mechanism
Yuxi Li (*Air Force Engineering University*);

00:00 Self-powered Photodetection via Plasma-etched Graphene Channels with MoS_2 Contacts
Zijian Wang (*Jiangnan University*); *Jing Bai* (*Army Engineering University of PLA*); *Xingyu Zhou* (*Jiangnan University*); *Jialing Jian* (*Jiangnan University*); *Zhengjin Weng* (*Jiangnan University*); *Shaoqing Xiao* (*Jiangnan University*); *Haiyan Nan* (*Jiangnan University*);

00:00 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*);

00:00 Dihedral Reflector Polarimetric Roll Scattering Characteristics Measurement Based on Fourier Series Analysis
Fang Liu (*National Key Laboratory of Scattering and Radiation*); *Xingyun Zhang* (*National Key Laboratory of Scattering and Radiation*); *Yang Bai* (*National Key Laboratory of Scattering and Radiation*); *Guangzhao Yang* (*Tsinghua University*);

00:00 Combination of Finite Element Method with Modal Method for Optimal Numerical Simulations of Photonic Crystal Structures
Dmitry Dresvyankin (*Skolkovo Institute of Science and Technology*);

00:00 Conducted Emission Testing and Analysis Based on Isolated SiP Chips
Pingyun Jiang (*National University of Defense Technology*); *Jianfei Wu* (*National University of Defense Technology*); *Ledong Chen* (*National University of Defense Technology*); *Honghai Liu* (*National University of Defense Technology*); *F. C. Niu* ();

00:00 Two-photon Photodynamic Therapy and Assessment of Cancer Prognosis
Bobo Gu (*Shanghai Jiao Tong University*);

00:00 Bio-aware Electromagnetic Noise Harvesting for Communication Enhancement and Radiation Mitigation
Diva Bhattacharya (*Netaji Subhas University of Technology*); *Bhaskar SenGupta* (*Heriot-Watt University*);

00:00 Analysis of Phase Drift in Outdoor RCS Measurements
Ming Lyu (*Science and Technology on Electromagnetic Scattering Laboratory*);

00:00 OptoPCM-MetaData: A Generative AI-based Approach for Intelligent Optimization of Phase Change Materials
Chaohuan Wu (*Soochow University*); *Lei Gao* (*Suzhou City University*); *Muhammad Qasim Mehmood* (*Information Technology University (ITU)*); *Dongliang Gao* (*Soochow University*);

00:00 Dynamic Optical Field Modulation and Biological Microparticle Trapping Using a Dual-band Wavelength-selective Metalens
Rui Jun Guo (*Zhengzhou University*); *Yong Zeng* (*Zhengzhou University*); *Chengkai Zhang* (*Zhengzhou University*); *Kai Yu* (*Zhengzhou University*);

00:00 Comparative Investigation of Two Kinds of Typical Dual-wavelength Rb-Cs Vapor Lasers
Shunyan Wang (*Southwest Institute of Technical Physics*); *Weiyi Tie* (*Southwest Institute of Technical Physics*); *Meihong Rao* (*Southwest Institute of Technical Physics*); *Chenghuan Su* (*Southwest Institute of Technical Physics*); *You Wang* (*Southwest Institute of Technical Physics*);

00:00 Design of a Fragment-type 77 GHz MIMO Antenna Using an Improved Genetic Algorithm
Bingquan Yang (*University of Science and Technology of China*); *Lai-Fu Jin* (*East China Research Institute of Electronic Engineering*); *Pengfei Yu* (*East China Research Institute of Electronic Engineering*);

00:00 Intercepting of Electrons with High Rotational Velocities in Inverse Gyrotron Magnetron-injection Guns
Vladimir Nikolaevich Manuilov (*Institute of Applied Physics, RAS*); *Mikhail Dmitrievich Proyavin* (*Institute of Applied Physics, Russian Academy of Sciences*); *A. V. Aktanaev* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *Aleksandr A. Bogdashov* (*Institute of Applied Physics, Russian Academy of Sciences*);

00:00 An Improvement of the SAR-based Rainfall Retrieval Model Using Tropical Cyclone Structural Parameters
Chunlan Liu (*Ocean University of China*); *Yuan Gao* (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*);

00:00 FPGA-based Parallel Landweber Algorithm for Electromagnetic Tomography Image Reconstruction
Jiwei Huo (*Beijing Jiaotong University*); *Ying Gao* (*Standards & Metrology Research Institute, China Academy of Railway Science Corporation Limited*); *Haihua Yang* (*China Railway Hohhot Group Corporation Limited*); *Wei Yuan* (*Infrastructure Inspection Research Institute, China Academy of Railway Science Corporation Limited*);

00:00 Investigation on the Utilization of 905 nm-LiDAR for Ocean Wave Monitoring
Fei Chen (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Yanmin Zhang* (*Ocean University of China*);

00:00 Physics-guided Microwave Inverse Scattering via Edge-enhanced Multi-frequency Fusion Network with PixelShuffle
Xingbao Zhai (*Zhengzhou University*); *Fazhong Shen* (*Zhengzhou University*);

00:00 Research on Model Predictive Control Method for Disturbance Rejection of Electric Rudder under Nonlinear Disturbances
Huanfa Yi (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yang Li Liu* (*Southwest University of Science and Technology*); *Gaohua Xiong* (*Southwest University of Science and Technology*); *Yang Qiu* (*Southwest University of Science and Technology*);

00:00 Transformer Network-based Low Data Rate Radar Track Prediction
Youshen Tian (*Beijing Institute of Technology*); *Changhao Liu* (*Beijing Institute of Technology*); *Yan Wang* (*Beijing Institute of Technology*);

00:00 Electromagnetic Compatibility Risk Mitigation in Modular Wheelchair Power-assist Kits Using a Supervisory Fail-safe Control Architecture
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*);

00:00 A Scalable Sub-picosecond Clock synchronization Architecture Enabled by Quantum Two-way Time Transfer
Bingke Shi (*National Time Service Center, Chinese Academy of Sciences*); *Huibo Hong* (*National Time Service Center, Chinese Academy of Sciences*); *Xiao Xiang* (*National Time Service Center, Chinese Academy of Sciences*); *Runai Quan* (*National Time Service Center, Chinese Academy of Sciences*); *Yuting Liu* (*National Time Service Center, Chinese Academy of Sciences*); *Zhiguang Xia* (*National Time Service Center, Chinese Academy of Sciences*); *Tao Liu* (*National Time Service Center, Chinese Academy of Sciences*); *Shougang Zhang* (*National Time Service Center, Chinese Academy of Sciences*); *Ruifang Dong* (*National Time Service Center, Chinese Academy of Sciences*);

00:00 A Method of Microwave Therapy, Music and LED-therapy for Alzheimer and Parkinson Disease
Liliia Rabenok (*Aesthetic Surgeon*); *Margarita Tecpoyotl-Torres* (*Autonomous University of State Morelos (UAEM)*); *Nikolay Grimalsky* (*UAM*);

00:00 Exceptional Point Realization in Asymmetric Non-Hermitian All-dielectric Metasurface
Monica Pradhan (*Indian Institute of Technology Kharagpur*); *Shubhanshi Sharma* (*Indian Institute of Technology Kharagpur*); *Shailendra Kumar Varshney* (*Indian Institute of Technology Kharagpur*);

00:00 Design of Circular Airy Beams Carrying OAM Using a Lens-integrated Small-aperture Antenna Array
Ze Zheng (*Xidian University*); *H. X. Zuo* (*Xidian University*); *Q. Feng* (*Xidian University*); *X. Hao* (*Xidian University*); *Long Li* (*Xidian University*);

00:00 Integrated Design of Multidimensional Camouflage Based on Metasurface Electromagnetic Modulation
Huiting Sun (*Air Force Engineering University*); *Jun Wang* (*Air Force Engineering University*); *Ruichao Zhu* (*Air Force Engineering University*); *Yuxiang Jia* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Tucker and ActNet-kernel Neural Operator for Electric Field Integral Equations of 3-D PEC Targets
Haokun Lei (*Fudan University*); *Yang Liao* (*Fudan University*); *Feng Wang* (*Fudan University*);

00:00 Design of a Broadband Hybrid EMI Filter
Qilong Yu (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yining Qing* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yonghao Lu* (*Southwest University of Science and Technology*); *Yong Li* (*Southwest University of Science and Technology*);

00:00 Analysis of Pulse Integration Gain in RCS Measurements
Ming Lyu (*Science and Technology on Electromagnetic Scattering Laboratory*);

00:00 Tailoring Chiroptical Properties of Large-area Moiré Metamaterials with TiO_2 Nanoantenna Stickers
Jiayang He (*Kyoto University*); *Shunsuke Murai* (*Kyoto University*); *Tienyang Lo* (*Kyoto University*); *Katsuhisa Tanaka* (*Kyoto University*);

00:00 Machine-learning Assisted Infrared Optical Sensing for Rapid Viral Detection and Ultra-low Copy Number Quantification
Pooja Lahiri (*Indian Institute of Technology Kharagpur*); *Subhanita Roy* (*Indian Institute of Technology Kharagpur*); *Basudev Lahiri* (*IIT Kharagpur*);

00:00 Filter-free Photonic Frequency Octupling Based on Cascaded MZM Parameter Coordination
Chengyao Liu (*Nankai University*); *Yalong Xu* (*Nankai University*); *Jing He* (*Nankai University*); *Kunpeng Zhai* (*Nankai University*); *Huashun Wen* (*Nankai University*); *Ninghua Zhu* (*Nankai University*);

00:00 Intelligent Classification and Multi-source Decoupling of Radiation Sources Using Near-field Electromagnetic Data
Zongjin Li (*Beihang University*); *Xiaofei Zhao* (*Beihang University*); *Lingnan Song* (*Beihang University*); *Cheng Wang* (*Beihang University*);

00:00 All-optical Signal Processing-based Flexible Optical Interconnection Using Pump Assisted Nonlinear Optical Loop Mirror
Zhe Sun (*China Electronic Product Reliability and Environmental Testing Research Institute*); *Qiankun Li* (*Nankai University*); *Huashun Wen* (*Nankai University*); *Zijie Feng* (*University of Electronic and Science Technology of China*); *Yameng Li* (*Hangzhou Research Institute, China Coal Technology and Engineering Group*); *Chengyao Liu* (*Nankai University*); *Qi Xu* (*Beijing Institute of Technology*); *Xiongwei Yang* (*Xi'an University of Posts and Telecommunications*); *Ninghua Zhu* (*Nankai University*);

00:00 Harmonic Behavior of the Coupling Coefficient of an Oscillatory Neural Network Based on the Magnetoelectric Composite Structure
Aleksandr O. Nikitin (*Yaroslav-the-Wise Novgorod State University*); *Roman V. Petrov* (*Novgorod State University*); *Vasilii A. Misilin* (*Yaroslav-the-Wise Novgorod State University*);

00:00 CSI Technology Introduction and Its Application
Xiuqi Lai (*Shanghai University*); *Xia Zhou* (*Nokia Shanghai Bell Co., Ltd.*); *Jingjing Shi* (*University of Manchester*);

00:00 Simulation Study on the Light Field Modulation Characteristics of Dual Optical Degrees of Freedom in Vector Vortex Beams
Zhelei Chen (*China Jiliang University*); *C. H. Li* (*China Jiliang University*); *Wei Bin Qiu* (*China Jiliang University*); *Han Gao* (*China Jiliang University*);

00:00 RCS Sensitivity Analysis Based on Higher-order Basis Functions and Automatic Differentiation
Zongwei Zhan (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Hongbin Zhang* (*Southwest University of Science and Technology*); *Chunying Zhao* (*Chengdu Tianao Technology Development Co., Ltd*); *Hongqiu Xie* (*Mianyang Product Quality Supervision and Inspection Institute*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 The Seismic Resistance Grade of Buildings Identification Method Based on Low-altitude Embedded Visual Image Processing and Distributed Communication Networking
Yupei Fan (*Hainan Earthquake Agency*); *Zhenjia Chen* (*Hainan University*); *Xu Geng* (*Huanghuai University*); *Jun Chen* (*Hainan University*); *Zhonghao Huang* (*Hainan University*);

00:00 An Intelligent RCS Prediction Method Based on Target Geometric Parameterization Modeling
Weiyu Xia (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Haonan He* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Bo Pu* (*DeTooLIC Technology Co., Ltd.*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 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*); *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*);

00:00 Knowledge Graph-based Electromagnetic Compatibility Analysis for Integrated Electronic System
Jingci Zhang (*Jilin University*); *Hong Jiang* (*Jilin University*); *Sen Wang* (*Jilin University*);

00:00 Nonreciprocal Metasurfaces for Asymmetric Wavefront Manipulation
Hao Pan (*City University of Hong Kong*); *Zheng Yang* (*City University of Hong Kong*); *Shubo Wang* (*City University of Hong Kong*);

00:00 Design of a Flexible X-band Wideband Phase-modulated Metasurface Based on Diamond-shaped Unit Structure
Tianyue Xie (*National University of Defense Technology*); *Junjie Wang* (*National University of Defense Technology*); *Jiong Wu* (*National University of Defense Technology*); *Dejun Feng* (*National University of Defense Technology*);

00:00 Lithography-free, High-purity Dual-mode Structural Colors via Fano-resonant Cavities with Active $Ge_2Sb_2Te_5$ Modulation
Hwajin An (*Yonsei University*); *Dongkyun Kang* (*Yonsei University*); *Jungwoo Pyo* (*Yonsei University*); *Jaehyeong Kim* (*Yonsei University*); *Myeongkyu Lee* (*Yonsei University*);

00:00 Design of a 330–500 GHz Triple-subharmonic Mixer Using Schottky Diodes
Zewei Wang (*UESTC*); *Yi Zhou* (*UESTC*); *Tianchi Zhou* (*UESTC*); *Jun Zhou* (*UESTC*); *Ziqiang Yang* (*University of Electronic Science and Technology of China*);

00:00 Embedded Fluorescent Molecules in a Hexagonal Boron Nitride Stack
Tianyu Fang (*University of Bonn*); *Ricardo Gioia Alvarez* (*University of Bonn*); *Babak Behjati* (*University of Bonn*); *Moritz Scharfstadt* (*University of Bonn*); *Noah Henseler* (*University of Bonn*); *Andrea Bergschneider* (*University of Bonn*); *Stefan Linden* (*University of Bonn*); *Christian Schafer* (*Technical University of Vienna*); *Daqing Wang* (*University of Bonn*);

00:00 Scenario Recognition for Real-time Sub-nanometer Drift Correction in Super-resolution Microscopy
Kui Wang (*Zhejiang Normal University*); *Anping Xiao* (*Zhejiang Normal University*); *Chuankang Li* (*Zhejiang Normal University*);

00:00 Research on Linear Range Expansion for Optical Field-strength Probes Based on Support Vector Machine
Bo Peng (*Beijing Institute of Radio Metrology and Measurement*); *Ting Liu* (*Beijing Institute of Radio Metrology and Measurement*); *Shuo Zhang* (*Beijing Institute of Radio Metrology and Measurement*); *Yongjie Cheng* (*Beijing Institute of Radio Metrology and Measurement*); *Nan Wang* (*Beijing Institute of Radio Metrology and Measurement*); *Hai-Yang Wang* (*University of Electronic Science and Technology of China*);

00:00 Advances in SBS-gain-spectrum Widening in Silica-based Optical Fibers through Significant 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. Zaushitsyna* (*The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*); *Vitaliya A. Agakhanova* (*The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*); *Mikhail V. Yashkov* (*Institute of Chemistry of High Purity Substances of the Russian Academy of Sciences*); *Mikhail M. Bubnov* (*Prokhorov General Physics Institute of the Russian Academy of Sciences*); *Mikhail E. Likhachev* (*The Prokhorov General Physics Institute of the Russian Academy of Sciences, Dianov Fiber Optics Research Center*);

00:00 Room Temperature Broadband Photodetection with Enhanced Detectivity Based on 2D BP/$PtSe_2$ 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*);

00:00 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*);

00:00 Research on Ku/Ka Dual-band Relativistic Transit-time Oscillator Based on Single Electron Beam Operation
Yanjin Cheng (*National University of Defense Technology*); *Junpu Ling* (*National University of Defense Technology*); *Hao Song* (*National University of Defense Technology*); *Yufang He* (*National University of Defense Technology*); *Lei Wang* (*National University of Defense Technology*); *Zu Long Chen* (*National University of Defense Technology*); *Bin Ding* (*National University of Defense Technology*);

00:00 Robust Sparse Staring Imaging for Stochastic Radiation Radar
Ping Zhang (*University of Electronic Science and Technology of China*); *Deqing Mao* (*University of Electronic Science and Technology of China*); *Yin Zhang* (*University of Electronic Science and Technology of China*); *Yulin Huang* (*University of Electronic Science and Technology of China*); *Jianyu Yang* (*University of Electronic Science and Technology of China*);

00:00 A Parameter-free Angular Superresolution Imaging Method Based on Unfolded Network under Antenna Pattern Error
Mingjie Yang (*University of Electronic Science and Technology of China*); *Deqing Mao* (*University of Electronic Science and Technology of China*); *Yin Zhang* (*University of Electronic Science and Technology of China*); *Yulin Huang* (*University of Electronic Science and Technology of China*); *Jianyu Yang* (*University of Electronic Science and Technology of China*);

00:00 Multi-beamforming Design of MIMO Radar under Hybrid Analog-digital Architecture
Xian Zhao (*University of Electronic Science and Technology of China*); *Deqing Mao* (*University of Electronic Science and Technology of China*); *Changhai Lin* (*University of Electronic Science and Technology of China*); *Yulin Huang* (*University of Electronic Science and Technology of China*); *Yin Zhang* (*University of Electronic Science and Technology of China*); *Jianyu Yang* (*University of Electronic Science and Technology of China*);

00:00 Size Effects on the Electromagnetic Wave Scattering Property of Finite Periodic Structures
Saihang Qie (*Northwestern Polytechnical University*); *Yongqiang Wang* (*Northwestern Polytechnical University*); *Shuaiwen Liang* (*Northwestern Polytechnical University*); *Changyou Li* (*Northwestern Polytechnical University*);

00:00 Enhancing PS-InSAR Point Density and Precision through Deep Learning-based Semantic Prior Constraints in Complex Urban Environments
Yanyi Yuan (*Fudan University*); *Junjie Ma* (*Fudan University*); *Fengming Hu* (*Fudan University*);

00:00 Study on the Layout of Mulberry Industry in China Based on Remote Sensing
Zihao Wu (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*); *Zijian Cao* (*China Agricultural University*); *Xiao-Jing Han* (*Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences*);

00:00 Mainlobe Deceptive Jammer Suppression via Low-rank-Sparse Decomposition with EPC-MIMO Radar
Xiang Zhang (*Xidian University*); *Lan Lan* (*Xidian University*); *Kunkun Li* (*Xidian University*); *Guisheng Liao* (*Xidian University*);

Session 4A1a
Computational Electromagnetics

Friday AM, July 31, 2026

Room 1 - CR 1

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*);

Session 4A1b
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

8:45 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*);

00:00 Fast EM Simulation of Electrically Large Tunable Metasurfaces
Ming Jiang (*University of Electronic Science and Technology of China*);

Session 4A1c
Electromagnetics with Artificial Intelligence, Deep Learning, Signal Processing

Friday AM, July 31, 2026

Room 1 - CR 1

10:30 An Intelligent Anti-interference Acquisition Method for Wireless Broadcast Information
Zhicheng Shi (*ZheJiang University*); *Wenhao Kang* (*Zhejiang University*); *Long Chen* (*Zhejiang Unversity*); *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*);

00:00 Assessing Quality with Advanced 3D X-ray Tomography and Artificial Intelligence
Dingzhong Han (*Carl Zeiss (Shanghai) Co., Ltd.*);

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
Dobroslav 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*);

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

00:00 Multi-manifold Feature Fusion Network for Robust Recognition
Xinyu Wang (*Anhui University*); *Xianliang Wu* (*Anhui University*); *Jin Zhao* (*Anhui University*); *Xingang Ren* (*Anhui University*); *Junhao Liang* (*Anhui University*); *Xuelong Xu* (*Anhui University*);

00:00 A Multi-Fano Channel MIM Waveguide Filter
Hui Wang (*Hefei Normal University*); *Qiuyu Liang* (*Hefei Normal University*); *Zezhi Zhang* (*Hefei Normal University*); *Xingang Ren* (*Anhui University*);

Session 4A3a
Remote Sensing and Polarimetry, SAR

Friday AM, July 31, 2026
Room 3 - CR 3

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*);

Session 4A3b
Radar Imaging, GPR, Inverse Scattering

Friday AM, July 31, 2026
Room 3 - CR 3

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 8

Organized by Tao Jiang

Chaired by Tao Jiang

8:00 Transformer-based Estimation of Pareto Shape Parameters and Empirical Model Correction for Sea Clutter under Moderate Sea States
Jialong Han (*Harbin Engineering University*); *Tao Jiang* (*Harbin Engineering University*);

8:15 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*);

8:30 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*);

8:45 A Fast Spatial Domain Anti-intentional Interference Algorithm for Array Communication Based on One-dimensional MUSIC&LCMV-CMT
Steve Sun (*Harbin Engineering University*); *Tao Jiang* (*Harbin Engineering University*);

9:00 Simulation Study on the Propagation of Electromagnetic Radiation from Cables in Ship Compartments
Xintong Song (*Harbin Engineering University*); *Tao Jiang* (*Harbin Engineering University*); *Shuaikang Wang* (*Harbin Engineering University*);

9:15 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*);

9:30 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*);

Session 4A4b
Electromagnetic Research for Computational Innovations by Different Industrial Developments

Friday AM, July 31, 2026

Room 4 - CR 8

Organized by Yuxian Zhang, Naixing Feng

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*);

00:00 Numerical Design and Analysis of a High-Q Helical Resonator for Olive Oil Purity Detection via FMCW Radar Approach
Havva Çeliktaş Oğuzcan (*Akdeniz University*); *Mohamed S. Afifi* (*Akdeniz University*); *Selçuk Helhel* (*Akdeniz University*);

Session 4A5
Antenna and Array: Theory and Applications 2

Friday AM, July 31, 2026

Room 5 - CR 9

8:00 GSM-based Analysis of Complementary Polarization Rotation in Dual-CP Arrays
Xiao Jie Lu (*Tongji University*); *Bo Wang* (*Tongji University*); *Xiao Yu Li* (*Tongji University*); *Mei Song Tong* (*Tongji University*);

8:15 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*);

8:30 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*);

8:45 A Dual-band Ultra-thin Flexible Antenna for WLAN Applications
Wajeeha Fatima (*Tongji University*); *Jehangir Khan* (*Tongji University*); *Mei Song Tong* (*Tongji University*);

9:00 W-band Wideband Antenna-in-package Integrated with Coplanar Waveguide Power Divider Based on Through-glass via Technology
Ji-Wei Lian (*Nanjing University of Science and Technology*); *Zhi Zhao* (*Nanjing University of Science and Technology*); *Wonbin Hong* (*Pohang University of Science and Technology (POSTECH)*); *Dazhi Ding* (*Nanjing University of Science and Technology*);

9:15 Invited Decoupling-free ECC Reduction for Compact MIMO Antennas Based on Perfect Matching and Phase Orthogonality
Libin Sun (*Shanghai Jiaotong University*);

10:30 Resonance-aware Neural Surrogates for Pixelated Multiband 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*);

00:00 Optimization Design of a Longitudinal Corner-reflector Array for Ship HRRP Based on Dominant Scattering-center Matching
Sheng Tang (*Harbin Engineering University*); *Tao Jiang* (*Harbin Engineering University*);

00:00 Low Cost Array Antenna for Mobile Terminals
Yan Wang (*Fudan University*);

Session 4A6
Microwave Circuits, Systems and Components

Friday AM, July 31, 2026
Room 6 - CR 10

8:00 Design and Implementation of a High-density IoT-SDR Spectrum Monitoring Station: Automating ITU-R SM.1880-2 Based Occupancy Measurements
Zulhaidir Hamid (*Universitas Hasanuddin (UNHAS)*); *Elyas Palantei* (*Universitas Hasanuddin (UNHAS)*); *Intan Sari Areni* (*Universitas Hasanuddin (UNHAS)*);

8:15 Light-load ZVS Control Optimization for Resonant Wireless Power Transfer Systems
Yu Cheng Wang (*Shanghai Maritime University*);

8:30 Pickup Unit Grouping Effects in Multi-phase Variable Reluctance Energy Harvesters
Ye Xu (*Mid Sweden University*); *Mengfei Wu* (*Mid Sweden University*); *Sebastian Bader* (*Mid Sweden University*); *Bengt Oelmann* (*Mid Sweden University*);

8:45 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*);

9:00 Compact Substrate Integrated Waveguide Multiband Filter and Filtering Couplers Based on Mixed Cavities with Flexible Topology
Zhigang Zhang (*Chengdu University of Information Technology*); *Jiahao Li* (*Chengdu University of Information Technology*); *Ke Yu* (*Chengdu University of Information Technology*); *Yuchen Xiao* (*Chengdu University of Information Technology*); *Weiwei Lan* (*Chengdu University of Information Technology*);

9:03 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*);

9:18 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*);

9:33 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 Techonology*);

9:48 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*);

10:30 Design of RF Touch Sensor Based on Frequency Coding Defect Grounding Structures
Peiqin Zhou (*Zhejiang University*); *Zhihui Wang* (*Zhejiang Unversity*); *Zhicheng Shi* (*ZheJiang University*); *Huilin Bao* (*Zhejiang University*); *Jiangtao Huangfu* (*Zhejiang University*);

10:45 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*);

11:00 Mitigation of Open-stopband in Leaky Coaxial Cables
Kimberly Nguyen (*Carleton University*); *David F. Hardy* (*Carleton University*); *Shulabh Gupta* (*Carleton University*);

11:15 A Low-complexity Hybrid SSA–OS-ELM Framework for Digital Predistortion of Wideband Power Amplifiers
Shiyu Xiang (*Southeast University*); *Hongcai Chen* (*Southeast University*);

11:18 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*);

11:33 Parameter Tuning of Virtual Synchronous Generator Based on Improved Grey Wolf Optimizer
Tonghui Xu (*Shanghai Maritime University*);

00:00 Design of Selective Wideband Bandpass Filter Based on Coupled Lines and Open Stubs
Jamel Ben Romdhane Hajri (*University of Electronic of Science and Technology of China (UESTC)*);

00:00 Deep Learning-enabled Geolocation of FM Broadcast Stations for Optimizing Green IoT Energy Harvesting Networks
Elyas Palantei (*Universitas Hasanuddin (UNHAS)*); *Zulhaidir Hamid* (*Universitas Hasanuddin (UNHAS)*); *Intan Sari Areni* (*Universitas Hasanuddin (UNHAS)*);

00:00 IoT-based Water Quality Surveillance System Operated through Hilly Terrain and Densely Forest Topology of Microwave Transmission Network
Theresia Wuri Oktaviani (*Universitas Hasanuddin (UNHAS)*); *Elyas Palantei* (*Universitas Hasanuddin (UNHAS)*); *Dewiani Dewiani* (*Hasanuddin University*);

00:00 RF MEMS Switches: Path to Industrialization
Xiaolong Li (*Tsinghua University*); *Yikun Liu* (*Tsinghua University*); *Jiangtao Wei* (*Tsinghua University*); *Zewen Liu* (*Tsinghua University*); *Yulong Zhang* (*North University of China*);

00:00 Microwave Sensor Based on Parametric Frequency Divider
Lu Yi She (*Soochow University*); *Lei Wang* (*Soochow University*); *Yuan Quan Cao* (*Soochow University*); *Yunjing Zhang* (*Soochow University*);

Session 4A7
Advanced Millimeter-wave Radar and Optical Sensor Fusion Technology

Friday AM, July 31, 2026

Room 7 - VIP R3

Organized by Yanwen Jiang, Guoyan Wang

Chaired by Yanwen Jiang

8:00 LightID: Joint Gesture and Identity Recognition Based on Optical Display and Sensing
Wenhao Kang (*Zhejiang University*); *Peiqin Zhou* (*Zhejiang University*); *Chen Huang* (*Zhejiang University*); *Minyang Wu* (*Zhejiang University*); *Jiangtao Huangfu* (*Zhejiang University*);

8:15 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*);

8:15 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*);

8:30 Cyclic Frequency Domain Enhanced Detection Method for Rotary-wing UAVs
Chengchen Xia (*National University of Defense Technology*); *Libing Jiang* (*National University of Defense Technology*); *Shuo Liu* (*Xi'an Electronic Engineering Research Institute*); *Zhuang Wang* (*National University of Defense Technology*);

8:45 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*);

9:00 Adaptive Keyframe and Feature Management for Multi-camera Visual Odometry
Yueshang Zhou (*National University of Defense Technology*); *Guoyan Wang* (*National University of Defense Technology*); *Jun Ma* (*Belarusian State University of Informatics and Radioelectronics*); *Tsviatkou Viktar* (*Belarusian State University of Informatics and Radioelectronics*); *Hongqi Fan* (*National University of Defense Technology*);

9:15 Trustworthy Monocular Depth Estimation with Uncertainty
Yixuan Fang (*National University of Defense Technology*); *Dongsheng Li* (*National University of Defense Technology*); *Guoyan Wang* (*National University of Defense Technology*); *Yanwen Jiang* (*National University of Defense Technology*); *Jun He* (*National University of Defense Technology*); *Dawei Lu* (*National University of Defense Technology*); *Hongqi Fan* (*National University of Defense Technology*);

9:30 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*);

9:45 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*);

10:30 A Miniaturized Prototype of a Shared-aperture Radar-optical Fusion Imaging System
Yanwen Jiang (*National University of Defense Technology*); *Hongqi Fan* (*National University of Defense Technology*); *Dawei Lu* (*National University of Defense Technology*);

10:45 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*);

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 Vision-aided Enhanced Imaging Method for MIMO Radar via Structural Information
Qiuyu Liu (*National University of Defense Technology*); *ZhengJie Ma* (*National University of Defence Technology*); *Yanwen Jiang* (*National University of Defense Technology*); *Hongqi Fan* (*National University of Defense Technology*);

11:30 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*);

00:00 A Lightweight and Robust Hybrid Visual Odometry for Weak-textured Environments
Yonglei Pan (*National University of Defense Technology*); *Guoyan Wang* (*National University of Defense Technology*); *Jun He* (*National University of Defense Technology*); *Hongqi Fan* (*National University of Defense Technology*); *Tsviatkou Viktar* (*Belarusian State University of Informatics and Radioelectronics*); *Jun Ma* (*Belarusian State University of Informatics and Radioelectronics*);

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*); *Zuojia 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 Invited Full-space Multi-functional Metasurfaces and Their Application in Array Antenna and 5G Wireless Communication
Yijun Feng (*Nanjing University*);

8:50 Invited Dual-polarized Absorption-transmission Integrated Metasurface for Large Incident Angles
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*);

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

00:00 Invited Transmission Characteristics and Multidimensional Polarization Manipulation of Multi-layer Cascaded Metasurfaces
Yueyi Yuan (*Harbin Institute of Technology*); *Yuxiang Wang* (*Harbin Institute of Technology*); *Cong Liu* (*Harbin Institute of Technology*); *Kuang Zhang* (*Harbin Institute of Technology*);

10:50 Invited Glass-substrate Metasurfaces for Optically Transparent High-gain Antenna Applications
Ziheng Zhou (*Fuzhou University*); *Guirong Feng* (*Fuzhou University*);

11:10 A VO_2-based Column-controllable Multifunctional Terahertz Metasurface
Mengxuan Zhuang (*Fudan University*); *Wenfeng Yao* (*Fudan University*); *Yijie Zhang* (*Fudan University*); *Guo-Min Yang* (*Fudan University*);

00:00 3D Möbius Polarization Topology in Propagation-invariant Vector Beams
Na Ri (*Harbin Institute of Technology*); *Yueyi Yuan* (*Harbin Institute of Technology*); *Yuxiang Wang* (*Harbin Institute of Technology*); *Guohui Yang* (*Harbin Institute of Technology*); *Kuang Zhang* (*Harbin Institute of Technology*);

11:28 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*);

Session 4A11
Metamaterials, Plasmonics and Complex Media

Friday AM, July 31, 2026

Room 11 - CR 15

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 Invited BD-RIS-enabled SWIPT-NOMA: Joint Design for Reliable Information Transfer and Efficient Energy Harvesting
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*);

10:30 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 Towards Fully Printed Flexible Plasmonic Displays with Electrically Tunable Directional Color Dynamics
Jialong Peng (*National University of Defense Technology*);

11:00 Genetically Designed-based Volumetric Metamaterials for Radar Range Enhancement
Dmytro Vovchuk (*Tel Aviv University*); *Dmitry Dobrykh* (*Tel Aviv University*); *Konstantin Grotov* (*Tel Aviv University*); *Anna Mikhailovskaya* (*Tel Aviv University*); *Mykola Khobzei* (*Riga Technical University*); *Vladyslav Tkach* (*Riga Technical University*); *Anton Kharchevskii* (*Tel Aviv University*); *Toms Salgals* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Pavel Ginzburg* (*Tel Aviv University*);

11:15 Polarization-division Full-space Metasurface for Independent Transmission and Reflection Phase Modulation
Shulei Zhang (*Air Force Engineering University*); *Ruichao Zhu* (*Air Force Engineering University*); *Fan Wu* (*Air Force Engineering University*); *Yuxiang Jia* (*Air Force Engineering University*); *Chang Ding* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 N2-channel OAM-polarization Multiplexing via Bi-layer Diffractive Neural Networks
Cong Liu (*Harbin Institute of Technology*); *Yueyi Yuan* (*Harbin Institute of Technology*); *Yuxiang Wang* (*Harbin Institute of Technology*); *Jinxing Li* (*Harbin Institute of Technology*); *Guohui Yang* (*Harbin Institute of Technology*); *Kuang Zhang* (*Harbin Institute of Technology*);

00:00 Optimizing the Casimir force via Spatial Nonlocality
Jieran Chen ();

00:00 Phase-cancellation-based Wideband RCS Reduction Using a 1-Bit Coding Metasurface
Awanish Kumar (*Univ Grenoble Alpes*);

00:00 A Dual-polarization Time-domain Modulated Reconfigurable Electromagnetic Metasurface
Peizhou Hu (*Air Force Engineering University*); *Chang Ding* ();

00:00 Passive Reconfigurable Intelligent Surface Based on Movable Metasurfaces
Weiren Zhu (*Shanghai Jiao Tong University*);

00:00 Deep Learning-enhanced Complex Permittivity Characterization of Liquid Crystals via Transfer Learning
Chang Ding (*Harbin Institute of Technology*); *Huilin Mu* (*Air Force Engineering University*);

Session 4A12a
Quantum Light Source

Friday AM, July 31, 2026

Room 12 - CR 16

Organized by E Wu

8:00 Femtosecond Laser Writing of Preferentially Orientated Shallow NV Centers in (111) Diamond
Botao Wu (*East China Normal University*); *E Wu* (*East China Normal University*);

00:00 Spectroscopy of Single Rare Earth Ions in Solids
Kangwei Xia (*University of Science and Technology of China*);

00:00 Optoelectronic Integrated Neuromorphic Hardware Based on Quantum Dot Light-emitting Memristor: From Multidimensional Visual Perception to Deep Fusion of Memory-Computing-Display
Gengxu Chen (*Fuzhou University*);

00:00 Stable, Tunable High-repetition-rate Operation of Gain-switched Semiconductor Laser
Jinxu Fang (*University of Shanghai for Science and Technology*); *Yanyan Qi* (*University of Shanghai for Science and Technology*); *Liang Yin* (*University of Shanghai for Science and Technology*); *Yan Liang* (*University of Shanghai for Science and Technology*);

9:00 Research on Broadband Laser Amplification of Diamond NV Centers
Zitong Wang (*East China Normal University*); *Junjie Lin* (); *E Wu* (*East China Normal University*);

00:00 A Real-time Dual-comb Ranging System Based on a Single-cavity Mode-locked Fiber Laser and a FPGA Platform
Zehui Cui (*Nanjing University of Aeronautics and Astronautics*); *Xiaorong Gu* (*Nanjing University of Aeronautics and Astronautics*); *Yao Li* (*Nanjing University*);

Session 4A12b
Integrated Photonic Sources and Devices

Friday AM, July 31, 2026

Room 12 - CR 16

Organized by Yan-Xiao Gong, Zhi-Yuan Zhou

Chaired by Yan-Xiao Gong

10:30 Generation of High-quality Quantum States by Incoherent Light
Yuewei Song (*University of Science and Technology of China*); *Heng Zhao* (*University of Science and Technology of China*); *Li Chen* (*University of Science and Technology of China*); *Zhi-Cheng Guo* (*University of Science and Technology of China*); *Ming-Yuan Gao* (*University of Science and Technology of China*); *Yin-Hai Li* (*University of Science and Technology of China*); *Guang-Can Guo* (*University of Science and Technology of China*); *Zhi-Yuan Zhou* (*University of Science and Technology of China*); *Baosen Shi* (*University of Science and Technology of China*);

00:00 High 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)*);

00:00 High-efficiency Multi-wavelength Quantum Light Generation Based on AlGaAs Chip
Xiaodong Zheng (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Xu Jing* (*Nanjing Normal University*); *Chenbo Liu* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Yufu Li* (*Nanjing Electronic Devices Institute*); *Runqiu He* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Lina Xia* (*Nanjing Normal University*); *Fei Wang* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Yuechan Kong* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Tangsheng Chen* (*Nanjing Electronic Devices Institute*); *Jiayun Dai* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*); *Liangliang Lu* (*Nanjing Normal University*); *Bin Niu* (*Nanjing Chip Valley Industrial Technology Institute, Nanjing Electronic Devices Institute*);

Session 4A13a
Advanced Photonic Integration for On-chip Spectrometry and Sensing

Friday AM, July 31, 2026

Room 13 - CR 17

Organized by Zhenzhou Cheng, Long Zhang

Chaired by Zhenzhou Cheng

8:00 Prototype-to-chip Design of a Silicon Photonic Fiber-optic Gyroscope
Teresa Natale (*Polytechnic University of Bari*);

8:15 Research Progress of Silicon Photonic Gas Sensors
Zhenzhou Cheng (*Tianjin University*); *Zunyue Zhang* (*Tianjin University*);

8:30 Hyperuniform Disordered Solids Waveguide Gas Sensor
Si Chen (*State Key Laboratory of Precision Measuring Technology and Instruments*); *Zhenzhou Cheng* (*Tianjin University*);

8:45 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 4A13b
Quantum Electromagnetics, Imaging, Sensing

Friday AM, July 31, 2026

Room 13 - CR 17

10:30 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*);

10:45 Eigenstates of Photon Creation Operator and Negative Energy
Huai-Yu Wang (*Tsinghua University*);

11:00 Casimir-polder Interactions of S-state Rydberg Atoms with Graphene
Kosit Wongcharoenbhorn (*University of Nottingham*); *C. Koller* (*University of Applied Sciences Wiener Neustadt*); *T. Mark Fromhold* (*University of Nottingham*); *Weibin Li* (*University of Nottingham*);

11:15 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)*);

11:30 3D Quantum Correlation Imaging with Millimeter Accuracy for Target Detection
Si Shen (*Southwest Institute of Technical Physics*); *Jiandong Chen* (*Southwest Institute of Technical Physics*); *Zichang Zhang* (*Southwest Institute of Technical Physics*); *Mengke Cai* (*Southwest Institute of Technical Physics*); *Shijie Deng* (*Southwest Institute of Technical Physics*); *Qiang Xu* (*Southwest Institute of Technical Physics*); *Jing Qiu* (*Southwest Institute of Technical Physics*); *Shuai Huang* (*Southwest Institute of Technical Physics*); *Haizhi Song* (*Southwest Institute of Technical Physics & UESTC*);

00:00 Birefringent Spherulite Optomechanics for Dual Quantum pH and Magnetic Bio-sensing
Hani Barhum (*Triangle Regional R&D Center*); *Tamara Amro* (*Triangle Regional R&D Center*); *Mohammad Attrash* (*Triangle Regional R&D Center*); *Pavel Ginzburg* (*Tel Aviv University*); *Vjaceslavs Bobrovs* (*Riga Technical University*); *Nir Bar-Gill* (*Hebrew University of Jerusalem*);

00:00 Rotman Lens Design Using Factorization Machine and Quantum Annealing
Sanghoek Kim (*Kyung Hee University*); *Yunhee Son* (*Kyung Hee University*);

00:00 Quantum Computing Method Based on FEM for EM Simulations
Feng Feng (*Tianjin University*); *X. Li* (*Tianjin University*); *Q. J. Zhang* (*Carleton University*);

Session 4A14a
Emerging Optical and Photonic Sensors

Friday AM, July 31, 2026

Room 14 - VIP R5

Organized by Yongjun Huang, 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 TiO_2-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 Multiphysics 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*);

Session 4A14b
Advanced Polarization and Spectral Imaging Techniques

Friday AM, July 31, 2026
Room 14 - VIP R5
Organized by Yiting Yu, Tingbiao Guo
Chaired by Tingbiao Guo

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 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*);

11:03 Single-pixel Long-wave Infrared Sensing via Coded Metasurfaces
Quanzhou Long (*Zhejiang University*); *Sailing He* (*Royal Institute of Technology & Zhejiang University*); *Tingbiao Guo* (*Zhejiang University*);

00:00 Metasurface-empowered Miniaturized Spectroscopic Systems
Guangcan Zhou (*Hunan Univerisity*);

00:00 Invited Advanced Multi-functional Silicon On-chip Spectrometers
Long Zhang (*Zhejiang University*);

Session 4A15
Optoelectronics, Photovoltaics, and Light Emitting

Friday AM, July 31, 2026
Room 15 - CR 18

00:00 Invited Overcoming Boltzmann Losses by Inhibiting Photon Emission in Organic Solar Cells
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 Ciencies Fotoniques*);

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 Photonoic Neural Network Based on Laser Graded Neurons
Yu Huang (*Soochow University*); *Nianqiang Li* (*Soochow University*);

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

00:00 Theoretical Studies on the Heterogeneous Photoinduced Electron Transfer in Dye-sensitized Solar Cells
Ang-Yang Yu (*Heilongjiang Agricultural Engineering Vocational College*);

Session 4A16
Optics and Photonics

Friday AM, July 31, 2026
Room 16 - CR 19

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 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*);

8:45 All-polarization-maintaining Dual-cavity Cascaded Passively Mode-locked Fiber Laser and Its Ultrafast Startup Dynamics
Menghao Fang (*Nanjing University*); *Qianchao Wu* (*Nanjing University*);

9:00 Photocatalytic Hybrid Nanostructures for the Degradation of Emerging Pollutants
Andrea Lanfranchi (*University of Genova*); *Riccardo Trevia* (*University of Genova*); *Vincenzo Spinoso* (*University of Florence*); *Alejandro Martinez-Bueno* (*University of Florence*); *Valeria d'Agostino* (*University of Naples Federico II*); *Simone Bertucci* (*Adolphe Merkel Institute*); *G. Manfredi* (*Novavido S. r. L, Bologna & Micamo Lab S. r. l.*); *Paola Lova* (*University of Genova*);

9:15 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)*);

9:30 Structured Photon Emission from Geometry Frustrated Lattice
Jun Lu (*National University of Singapore*);

9:45 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)*);

10:30 Tuning Computational Capacities of Photonic Reservoir Computing via Laser Cavity Size
J. Huang (*Xidian University*); *Tao Wang* (*Xidian University*); *Kathy Lüdge* (*Technische Universitat 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*); *Jiaguang 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*);

00:00 Invited Cavitation Empowerment: Navigation Strategies and Mechanisms of Light-driven Micro-robots
Chao-Qing Dai (*Zhejiang A&F University*);

00:00 Transition Oxides-based Hydrogen Sensors: From Fabrication to Detection Means and Mechanisms
Olga A. Lutikova (*Dukhov Automatics Research Institute (VNIIA)*); *I. N. Askhadullin* (*Dukhov Automatics Research Institute (VNIIA)*); *Daria P. Kulikova* (*Lomonosov Moscow State University*); *Yevgeniy M. Sgibnev* (*Lomonosov Moscow State University*); *M. E. Dokukin* (*Lomonosov Moscow State University*); *Alexander V. Baryshev* (*Lomonosov Moscow State University*);

Session 4A22
Poster Session 8

Friday AM, July 31, 2026
9:00 AM - 12:00 AM
Poster Area

00:00 Ku-band Low-profile Dual-circularly Polarized Shared-aperture Phased Array Antenna
Ruofan Wang (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Hongqiu Xie* (*Southwest University of Science and Technology (SWUST-TIRI)*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Longjian Zhou* (*Southwest University of Science and Technology*); *Jun Zhou* (*Chengdu Juji Millimeter Wave Technology Co., Ltd.*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Tong Li Yuan* (*Southwest University of Science and Technology*);

00:00 Low-profile Antenna Design with AMC Reflector for RFID
Tenghui Cui (*Shandong University*); *Jingyu Li* (*Shandong University*); *Junrui Zhang* (*Shandong University*);

00:00 Design of Low-profile Broadband Aperture-coupled Metamaterial-based Slot-grating Patch Antennas for Different Frequency Ranges
Egor Dmitrievich Malev (*National Research University "Moscow Power Engineering Institute"*); *T. A. Trushin* (*National Research University "Moscow Power Engineering Institute"*); *Mikhail Sergeyevich Mikhailov* (*National Research University "Moscow Power Engineering Institute"*); *Valery A. Permyakov* (*National Research University "Moscow Power Engineering Institute"*);

00:00 Miniaturized Vivaldi Electrically Connected Tightly Coupled Array for Wide-angle Time-domain Beam Scanning
Jialing Xie (*Northwest Institute of Nuclear Technology*); *Hanqing Qiao* (*Northwest Institute of Nuclear Technology*); *Xu Fang* (*Northwest Institute of Nuclear Technology*); *Ruoyuan Sun* (*Northwest Institute of Nuclear Technology*); *Longhui Fang* (*Northwest Institute of Nuclear Technology*);

00:00 Low-loss Transmission on Metallic Cylindrical Surfaces
Long Chen (*Zhejiang Unversity*); *Zhihui Wang* (*Zhejiang Unversity*); *Butian Chen* (*Zhejiang Unversity*); *Hanwen Shen* (*Zhejiang Unversity*); *Kaize Lin* (*Zhejiang Unversity*); *Jiangtao Huangfu* (*Zhejiang University*);

00:00 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*);

00:00 Topologically Protected Vertical Interconnects for Glass-based AiP Robust Against Wafer Bonding Errors
Ge Zhang (*Pengcheng Laboratory*); *Chenyang Wu* (*Pengcheng Laboratory*); *Shangcheng Kong* (*Pengcheng Laboratory*); *Weichao Li* (*Pengcheng Laboratory*); *Xiaofeng Tao* (*Pengcheng Laboratory*);

00:00 Design of a High-power Photonic Band Gap Gyrotron at 170 GHz
Jinhong Jiang (*Aerospace Information of Research Institute, Chinese Academy of Sciences*); *Rui Zhang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Lu Tian* (*Aerospace Information Research Institute, Chinese Academy of Sciences*); *Dengpan Chang* (*Aerospace Information Research Institute,Chinese Academy of Sciences*); *Jiawei Wang* (*Aerospace Information Research Institute, Chinese Academy of Sciences*);

00:00 Research on Asymmetric Mode Control in the Sub-Terahertz Coaxial Overmoded Cerenkov Generator Based on Slotted Slow Wave Structure
Junqing Wang (*Tsinghua University*); *Renzhen Xiao* (*Northwest Institute of Nuclear Technology*); *Kun Chen* (*Northwest Institute of Nuclear Technology*);

00:00 A Flexible Intelligent Bandage Sensor Antenna Based on Chipless RFID Technology
Xiao Shuai Li (*Tongji University*); *Shan Xue* (*Tongji University*); *Mei Song Tong* (*Tongji University*);

00:00 Mini-ConvNeXtV2 with Global Response Normalization for Robust Wind Farm Clutter Recognition in Weather Radar
Chenyu Ye (*Chengdu University of Information Technology*); *Qiangyu Zeng* (*Chengdu University of Information Technology*); *Jianxin He* (*Chengdu University of Information Technology*); *Hao Wang* (*Chengdu University of Information Technology*); *Kai Cheng* (*Chengdu University of Information Technology*);

00:00 Sidelobe Orthogonalization of Squint SAR Based on Spectrum Weighting
Jingyu Xue (*National University of Defense Technology*); *Leping Chen* (*National University of Defense Technology*); *Dao Xiang An* (*National University of Defense Technology*);

00:00 Simulation of Dynamic Electromagnetic Characteristics of Dual-plane Linear Array Electromagnetic Tomography Based COMSOL Moving Mesh
Yong Li (*Public Security Department, Fujian Police College*); *Liyun Ou* (*Public Security Department, Fujian Police College*); *Qinli Zhu* (*Fujian Agriculture and Forestry University*);

00:00 An Acoustic Environment Sensing Method
Haoyin Wang (*University of Electronic Science and Technology of China*); *Zhihui Wang* (*Zhejiang Unversity*); *Peiqin Zhou* (*Zhejiang University*); *Wenhao Kang* (*Zhejiang University*); *Jiangtao Huangfu* (*Zhejiang University*);

00:00 Validation of Mironov's Dielectric Models for Calculating the Complex Permittivity of Organic Soils Sampled from Test Plots in the Norilsk Urban District in Russia
Sergey Viktorovich Fomin (*Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences*); *Andrey Yu. Karavayskiy* (*Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences*); *Konstantin Victorovich Muzalevskiy* (*Kirensky Institute of Physics, Siberian Branch, Russian Academy of Sciences*);

00:00 Emission Imaging for Terrain with Subsurface Anomaly
Dongjin Bai (*National Space Science Center, Chinese Academy of Sciences*); *Saibun Tjuatja* (*University of Texas at Arlington*);

00:00 The Application of Optical Quantum Detection Technology
Ruomei Jiang (*Southwest Institute of Technical Physics*); *Beitong Cheng* (*Southwest Institute of Technical Physics*); *Jing Qiu* (*Southwest Institute of Technical Physics*); *Zichang Zhang* (*Southwest Institute of Technical Physics*); *Si Shen* (*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*);

00:00 Adaptive Wide-speed-range Sensorless Control of PMSMs Using High-frequency Injection and a Back-EMF Sliding-mode Observer
Changjie Huang (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Li Wu* (*Southwest University of Science and Technology*); *Siyue Qiu* (*Southwest University of Science and Technology*); *Huanfa Yi* (*Southwest University of Science and Technology*); *Hui Zhao* (*Southwest University of Science and Technology*); *Yangli Liu* (*Southwest University of Science and Technology*); *Yuchen Zhang* (*Southwest University of Science and Technology*);

00:00 Research on Energy-information Mutual Transmission Method for Casing Annulus in Extreme Environments
Jin Zhou (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yiran Ma* (*Southwest University of Science and Technology*); *Liming Yu* (*Southwest University of Science and Technology*); *Yilin Huang* (*Southwest University of Science and Technology*); *Chenhao Fang* (*Southwest University of Science and Technology*);

00:00 Parameter Identification and State Estimation for Lithium-ion Batteries Based on a Second-order RC Model and Dual Extended Kalman Filter
Xinyang Huang (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Hao Yang* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*); *Yuyu Zhu* (*Southwest University of Science and Technology*); *Yuying Zhu* (*Southwest University of Science and Technology*); *Jun Fan* (*Southwest University of Science and Technology*);

00:00 Fractional-order Adaptive Unscented Kalman Filter with Optimal Sigma Points and Marginalization for Lithium-ion Battery State of Charge Estimation
Li Xie (*Southwest University of Science and Technology*); *Liang Luo* (*Southwest University of Science and Technology*); *Zhenhua Quan* (*Southwest University of Science and Technology*); *Kunle Wang* (*Southwest University of Science and Technology*);

00:00 Research on SOC Estimation of Lead-acid Batteries Based on Extreme Learning Machine and Adaptive Extended Kalman Filter
Qiu He (*Southwest University of Science and Technology*); *Yuying Zhu* (*Southwest University of Science and Technology*); *Haoran Li* (*Southwest University of Science and Technology*); *Mingcan Li* (*Southwest University of Science and Technology*); *Junfeng Luo* (*Southwest University of Science and Technology*); *Mingjie Li* (*Southwest University of Science and Technology*);

00:00 Experimental Verification of the Nonlinear Characteristics of the Dispersion Relation in Composite Right/Left-handed Transmission Line Devices
Xin Shu (*Southwest Jiaotong University*); *Songning Wang* (*Southwest Jiaotong University*); *Qing Tang* (*Southwest Jiaotong University*); *Zhonghao Ding* (*Southwest Jiaotong University*); *Lianfu Wei* (*Southwest Jiaotong University*);

00:00 A 2.5–2.9 GHz Low-phase-noise LC-VCO with a Fully Integrated High-PSRR LDO in 0.18-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*);

00:00 A 93 to 102 GHz SiGe BiCMOS Sub-THz Wireless Interconnect with a Broadband Signal Source and a Highly-efficient Power Amplifier
Zicheng Liang (*Guangzhou University*); *Rui Yu* (*Guangzhou University*); *Xiuqiong Li* (*Guangzhou University*); *Yisi Yang* (*Guangzhou University*); *Jingmin Jiang* (*Guangzhou University*); *Rui Ma* (*Guangzhou University*); *Yifan Li* (*Guangzhou University*); *Zihua Xia* (*Guangzhou University*);

00:00 Study of Discretization Uncertainty of Fields of the Vertically Polarized EMP Radiated-wave Simulator with a Cylindrical Object
Xiang-Qin Zhu (*Northwest Institute of Nuclear Technology*); *Wei Wu* (*Northwest Institute of Nuclear Technology*); *Weixi Luo* (*Northwest Institute of Nuclear Technology*); *Hongfu Xia* (*Northwest Institute of Nuclear Technology*);

00:00 Time-resolved Emittance Measurements for the High-current Ion Extracted from Gyrotron Produced Dense ECR Plasma
Vadim A. Skalyga (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *I. V. Izotov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. V. Golubev* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *A. V. Polyakov* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. V. Razin* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*); *S. S. Vybin* (*A. V. Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences*);

00:00 Backscattering-immune Spin-locked Edge Transport in an All-dielectric 2D Topological Insulator
Jiangnan Xing (*ITMO University*); *Georgiy Kurganov* (*ITMO University*); *Dmitry V. Zhirihin* (*ITMO University*);

00:00 Differentiable Forward Modeling and Optimization of Laser Beam Shaping Elements
Dawei Lin (*Tianjin University*); *Degang Xu* (*Tianjin University*); *Jiarui Zou* (*Tianjin University*); *Yue Sun* (*Tianjin University*); *Yuantao Zhao* (*Tianjin University*); *Kai Chen* (*Tianjin University*); *Yuye Wang* (*Tianjin University*); *Jianquan Yao* (*Tianjin University*);

00:00 Performance Evaluation of M-PAM Modulation Formats: 10 Gbit/s NRZ and 20 Gbit/s PAM-4 in Optical Fiber Transmission Systems
Dmitrijs Prigunovs (*Riga Technical University*); *Denis Zurikovs* (*Riga Technical University*); *Vladislavs Vasiljevs* (*Riga Technical University*); *Toms Salgals* (*Riga Technical University*); *Inese Parfjonova* (*Riga Technical University (RTU)*); *Patriks Morevs* (*Riga Technical University*); *Sintija Berzina* (*Riga Technical University (RTU)*); *Edgars Kazoks* (*Riga Technical University*); *Natalja Muračova* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 Quasi-static Dispersion Tuning via 3D Printing Infill Ratio in Low-symmetry Hexagonal Photonic Crystals
Ozgur Onder Karakilinc (*Pamukkale University*);

00:00 A Novel Method for Estimating the Baseline Inclination Angle of Wide-swath Altimeter
Wenshuai Zhai (*National Space Science Center, Chinese Academy of Sciences*); *Yunhua Zhang* (*National Space Science Center, Chinese Academy of Sciences*); *Xiao Dong* (*National Space Science Center, Chinese Academy of Sciences*); *Xueyan Kang* (*National Space Science Center, Chinese Academy of Sciences*);

00:00 Experimental Observation of the Quantum Boomerang Effect in a Photonic Waveguide Array
Zhaoxin Wu (*Zhejiang University*); *Xiangrui Hou* (*Zhejiang University*); *Zhaoju Yang* (*Zhejiang University*);

00:00 Quasi-continuous-wave Background during State Transition of Soliton Molecules in Fiber Lasers
Xin Yan (*Zhejiang A&F University*); *Jun-Yi Ye* (*Zhejiang A&F University*); *Chao-Qing Dai* (*Zhejiang A&F University*);

00:00 A High-power Triplexer Based on a Three-branch Filter Structure
Xinhong Cui (*Key Laboratory of Advanced Science and Technology on High Power Microwave*); *Ning Zhou* (*Key Laboratory of Advanced Science and Technology on High Power Microwave*); *Zhong-Hai Zhang* (*Hangzhou Dianzi University*); *Zujin Hong* (*Hangzhou Dianzi University*); *Youyou Gui* (*Key Laboratory of Advanced Science and Technology on High Power Microwave*); *Yanchao Shi* (*Key Laboratory of Advanced Science and Technology on High Power Microwave*);

00:00 Simulation of SAR Imaging for Dynamic Ship Targets
Chun Wen (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Ziqi Cheng* (*Ocean University of China*);

00:00 Joint Denoising and Recognition Network for Radar Signals Based on Bayesian Multi-task Learning
Yanping Liao (*Harbin Engineering University*); *Chengming Niu* (*Harbin Engineering University*); *Qiang Guo* (*Harbin Engineering University*);

00:00 Research on InSAR PU Network Combining Improved U-net and SQD-LSTM
Limin Zhai (*National Space Science Center, Chinese Academy of Sciences*); *Yifan Gong* (*National Space Science Center, Chinese Academy of Sciences*); *Xiangkun Zhang* (*National Space Science Center, Chinese Academy of Sciences*);

00:00 Analysis of Quantum Technology-based Sensors and Integration with Fiber Optical Technologies
Ugis Senkans (*Riga Technical University*); *Rihards Murnieks* (*Riga Technical University*); *Andis Supe* (*Riga Technical University*); *Karina Prokopovica* (*Riga Technical University*); *Nauris Silkans* (*Riga Technical University*); *Martins Caune* (*Riga Technical University*); *Ricards Kudojars* (*Riga Technical University*); *Jurgis Porins* (*Riga Technical University*); *Xiaodan Pang* (*Zhejiang University*); *Sandis Spolitis* (*Riga Technical University*); *Janis Braunfelds* (*Riga Technical University*); *Vjaceslavs Bobrovs* (*Riga Technical University*);

00:00 Novel Broadband Matching Structure for CBGA Package RF Interfaces Based on Resonant Cavity
Lai-Fu Jin (*East China Research Institute of Electronic Engineering*); *Pengfei Yu* (*East China Research Institute of Electronic Engineering*);

00:00 AI-enhanced Denoising and Multi-feature Fusion for Interpretability Improvement in Underground Coal Mine Audio-frequency Electrical Prospecting
Mingxing Li (*Shandong Vocational College of Science and Technology*); *Yanli Xiao* (*Shandong Provincial No. 4 Institute of Geological and Mineral Survey*); *Xiaoqiang Liu* (*Shandong Vocational College of Science and Technology*); *Shunfu Xu* (*Shandong Vocational College of Science and Technology*); *Yadi Liu* (*Shandong Vocational College of Science and Technology*);

00:00 A Novel Method for Correcting Azimuthal Amplitude Taper in RCS Measurement Based on Angular Doppler
Qunting Ren (*National Key Laboratory of Scattering and Radiation*); *Ming Lv* (*National Key Laboratory of Scattering and Radiation*); *Shun Liu* (*National Key Laboratory of Scattering and Radiation*); *Zhihe Xiao* (*National Key Laboratory of Scattering and Radiation*); *Xianjun Sun* (*National Key Laboratory of Scattering and Radiation*);

00:00 Infrared-to-visible Light Up-conversion by Chiral Bismuth Halides
Stepan Ilin (*ITMO University*); *Lev E. Zelenkov* (*Harbin Institute of Technology*); *Sergey V. Makarov* (*ITMO University*);

00:00 Decoupling Analysis Based on the PEEC Method
Xiaoping Li (*Southwest University of Science and Technology*); *Xu Wang* (*DeTooLIC Technology Co., Ltd.*); *Anfeng Huang* (*DeTooLIC Technology Co., Ltd.*); *Yin Sun* (*DeTooLIC Technology Co., Ltd.*); *Qiusen He* (*Zhejiang University*); *Jun Fan* (*Southwest University of Science and Technology*); *Xiaohe Chen* (*China University of Petroleum*); *Jingkun Mao* (*Tianjin University of Technology*);

00:00 Electromagnetic Scattering by PEC — Dielectric Composite Objects: A New PMCHW Formulation and Treatment of Junctions
Svevo Bandelier (*University CY Cergy Paris*); *Christian Daveau* (*University CY Cergy Paris*);

00:00 Multi-objective Metasurface Design via a Closed-loop MOPSO-CNN Framework
Yiming Liao (*Nanjing University of Science and Technology*); *Tiantian Shi* (*Nanjing University*); *Feng Zhang* (*Nanjing University*); *Xiaoli Ji* (*Nanjing University*);

00:00 Metasurface-based Non-orthogonal Tri-channel Polarization Multiplexing for Optical Encryption
Xing-Yuan Huo (*Nanjing University*); *Yu Liu* (*Nanjing University*); *Yu-Tong Xiao* (*Nanjing University*); *Ruwen Peng* (*Nanjing University*); *Mu Wang* (*Nanjing University*);

00:00 808 nm Laser Induces Immunomodulatory Activation of Natural Killer Cells in Vitro and in Vivo
Qi Li (*Northwestern Polytechnical University*); *Ding Wang* (*Northwestern Polytechnical University*); *Zijie Liu* (*Northwestern Polytechnical University*); *Yuan Yin* (*Northwestern Polytechnical University*); *Yuanyuan Qu* (*Northwestern Polytechnical University*); *Yun Ye* (*Northwestern Polytechnical University*); *Huyan Ting* (*Northwestern Polytechnical University*);

00:00 A V-shaped Enhanced Bilateral Multi-subarray Padded Coprime Array for 2-D DOA Estimation
Yanping Liao (*Harbin Engineering University*); *Zhenghao Xie* (*Harbin Engineering University*); *Qiang Guo* (*Harbin Engineering University*);

00:00 A Ka-band Extended Interaction Oscillator Based on Carbon Nanotube Cold Cathode
Qingyun Chen (*Nanjing University of Posts and Telecommunications*); *Wei Xu* (*Nanjing University of Posts and Telecommunications*); *Xuesong Yuan* (*University of Electronic Science and Technology of China*); *Qingying Ren* (*Nanjing University of Posts and Telecommunications*); *Jie Xu* (*Nanjing University of Posts and Telecommunications*); *Jinze Li* (*Nanjing University of Posts and Telecommunications*); *Wei Li* (*Nanjing University of Posts and Telecommunications*); *Lin Meng* (*University of Electronic Science and Technology of China*);

00:00 Physical Semantic-guided Image-text Contrastive Learning for SAR Target Recognition
Chunxiao Wu (*Nanjing Research Institute of Electronics Technology*); *Cheng Wu* (*Nanjing Research Institute of Electronics Technology*); *Huixin Huang* (*Nanjing Research Institute of Electronics Technology*); *Yuanji Li* (*Nanjing Research Institute of Electronics Technology*); *Linghao Xia* (*Nanjing Research Institute of Electronics Technology*);

00:00 A Robust Bi-iterative Method for TDOA/FDOA-based Moving Target Localization with Sensor Position Uncertainties
Yanping Liao (*Harbin Engineering University*); *Xin Li* (*Harbin Engineering University*); *Qiang Guo* (*Harbin Engineering University*);

00:00 Multidimensional Microwave Scattering Signatures of Breaking Waves
Jianbo Cui (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Yanmin Zhang* (*Ocean University of China*); *Pengbo Du* (*Ocean University of China*); *Fanwei Su* (*Ocean University of China*);

00:00 Synchronous Optical Pumping and RF Pulse Modulation of Free-induction-decay Atomic Magnetometer
Jinghong Xu (*Beihang University*); *Haowen Tian* (*Beihang University*); *Wenjing Tian* (*Beihang University*); *Chi Fang* (*National Institute of Extremely-Weak Magnetic Field Infrastructure*); *Jiali Liu* (*National Institute of Extremely-Weak Magnetic Field Infrastructure*); *Liwei Jiang* (*Beihang Universtiy*);

00:00 Interference Experiments for Analog Optical Computing
D. Yu Tsipenyuk (*All-Russian Institute of Scientific and Technical Information of the Russian Academy of Sciences*); *V. P. Slobodyanin* (*Institute of Physics and Technology*); *A. V. Voropinov* (*LaserGraphicArt Ltd*);

00:00 A Metasurface-based Asymmetric Transmission Horn Antenna
Haoyuan Liu (*Harbin Engineering University*);

00:00 Predicting the Conductive Mesh Configurations through Modeling and Simulations for Transparent EM Shielded Materials
Abdur Rehman (*National University of Sciences & Technology*); *Rahim Jan* (*National University of Sciences and Technology*); *Akhtar Hussain* (*National University of Sciences & Technology*);

00:00 Four Port MIMO Antenna for V2X Communication-formula Student
Sovit Agrawal (*SRM Institute of Science and Technology*); *Himanshu Kumar* (*SRM Institute of Science and Technology*); *Bornik De* (*SRM Institute of Science and Technology*); *D. Tharani* (*SRM Institute of Science and Technology*);

00:00 Application of ICF Doppler Shift for Observing Wave Spectra Using GNSS Multisource Reflectometry
Fanwei Su (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Jianbo Cui* (*Ocean University of China*); *Qian Li* (*Xidian University*); *Pengbo Du* (*Ocean University of China*);

00:00 Mitigation of Beam-induced Electromagnetic Resonances Using Metamaterials in Particle Accelerators
Leonardo Sito (*University of Naples Federico II*); *Francesco Fienga* (*University of Naples Federico II*); *Vincenzo Romano Marrazzo* (*University of Naples Federico II*); *Benoit Salvant* (*CERN*); *Carlo Zannini* (*CERN*); *Giovanni Breglio* (*University of Naples Federico II*);

00:00 Improving Pulse Compression Detection of Human Mouth-click Signals Using Bio-inspired Gammatone Filters
Mohd Azhar Ahmad (*Universiti Putra Malaysia (UPM)*); *Nur Luqman Saleh* (*Universiti Putra Malaysia (UPM)*); *Nur Emileen Abd Rashid* (*Universiti Teknologi MARA*); *Khairul Khaizi Mohd Shariff* (*Universiti Teknologi MARA*);

00:00 Analysis of Electromagnetic Coupling Mechanism of Reverberation Chamber Method for Chip-level Radiated Immunity Testing
Honghai Liu (*National University of Defense Technology*); *Jianfei Wu* (*National University of Defense Technology*); *Ledong Chen* (*National University of Defense Technology*); *Fukang Niu* (*National University of Defense Technology*);

00:00 Efficient Classical Surrogates for Fermionic Systems
Ya-Dong Wu (*Shanghai Jiao Tong University*);

00:00 Phase-change-material-based Flexible Metasurfaces for Electrically Tuned Broadband Infrared Image Steganography
Yu-Tong Xiao (*Nanjing University*); *Yu Liu* (*Nanjing University*); *Ben-Qi Hou* (*Nanjing University*); *Xing-Yuan Huo* (*Nanjing University*); *Ruwen Peng* (*Nanjing University*); *Mu Wang* (*Nanjing University*);

00:00 Optical Isolator Based on a Subwavelength Integrated Optical Metawaveguide
Nikita G. Iukhtanov (*ITMO University*); *Roman S. Savelev* (*ITMO University*); *Ilya A. Volkov* (*ITMO University*); *Mikhail V. Rybin* (*ITMO University*); *Mihail I. Petrov* (*ITMO University*);

00:00 Wideband Few-mode Optical Fiber with Large Effective Area, Controlled Differential Mode Delay and Minimized Scattering for Mode Division Multiplexing
Pramod Ramdasrao Watekar (*Indian Institute of Technology*); *Shailendra Kumar Varshney* (*Indian Institute of Technology*);

00:00 An Electrically Small Composite Monopole Antenna for Long-wave Bands
Shangkun Ge (*Yangtze Delta Region Academy of BIT*); *Juncheng Liu* (*Beijing Institute of Radio Metrology and Measurement*); *Mengshi Chen* (*Beijing Institute of Radio Metrology and Measurement*); *Zhongxiang Shen* (*Yangtze Delta Region Academy of Beijing Institute of Technology*);

00:00 Adaptive Sum and Difference Beamforming with Low Impact in 'Canyon Shaped' Null Regions for Array Monopulse Angle Estimation
Yixi Zhang (*National University of Defense Technology*); *Jiazhi Ma* (*National University of Defense Technology*); *Yukai Kong* (*National University of Defense Technology*);

00:00 Research on Radar Focused Imaging Technology of Large Target Based on Moving Platform in Field Environment
Shun Liu (*National Key Laboratory of Scattering and Radiation*); *Ming Lyu* (*National Key Laboratory of Scattering and Radiation*); *Haohao Hou* (*National Key Laboratory of Scattering and Radiation*); *Qunting Ren* (*National Key Laboratory of Scattering and Radiation*); *Tiexing Wang* (*National Key Laboratory of Scattering and Radiation*); *Congcong Wang* (*National Key Laboratory of Scattering and Radiation*);

00:00 Robust Parameter Estimation of Mixed ISRJ Based on an FRFT-guided Cross-domain Attention Mechanism
Zhiyong Song (*National University of Defense Technology*); *Siyu Wang* (*National University of Defense Technology*);

00:00 Semi-supervised SAR Sea Ice Classification via Multi-stage Manifold Mixup and Consistency Constraints
Haitao Huang (*Tianjin University*);

00:00 Internal Electromagnetic Environment Prediction of Apertured Enclosures Based on Artificial Neural Networks
Sen Zhang (*Chengdu University of Information Technology*); *Bo-Yan Zhang* (*Chengdu University of Information Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Yuan Zhang* (*University of Electronic Science and Technology of China*); *Yuan Zhao* (*Chengdu University of Information Technology*);

00:00 Dual-polarization Programmable Metasurface for Non-line-of-sight Human Vital Sign Detection
Fangyuan Qi (*Air Force Engineering University*); *Yong-Xiang Hong* (*Hunan University*); *Ruichao Zhu* (*Air Force Engineering University*); *Zhihui Zhang* (*Air Force Engineering University*); *Guodong Han* (*Air Force Engineering University*); *Zuntian Chu* (*Air Force Engineering University*); *Jingxian Zhang* (*Air Force Engineering University*); *Zhihao Guo* (*Air Force Engineering University*); *Shulei Zhang* (*Air Force Engineering University*); *Weiqiang Gong* (*Air Force Engineering University*); *Sai Sui* (*Air Force Engineering University*); *Xinmin Fu* (*Air Force Engineering University*); *Fenglin Wang* (*Hunan University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Direct Binary Search Co-optimization of Grating and Bottom DBR for a High-efficiency and Broadband SOI Grating Coupler
Zhe Sun (*China Electronic Product Reliability and Environmental Testing Research Institute*); *Jing He* (*Nankai University*); *Chengyao Liu* (*Nankai University*); *Yalong Xu* (*Nankai University*); *Kunpeng Zhai* (*Nankai University*); *Huashun Wen* (*Nankai University*); *Ninghua Zhu* (*Nankai University*);

00:00 Illumination-intensity-controlled Bipolar Photoresponse in an $\boldsymbol{\alpha}$-$\mathbf{Ga_2O_3}$ Nanorod-array Photoelectrochemical Device for Edge-enhanced Imaging
Shuo Jin (*Zhejiang Sci-Tech University*); *Daoyou Guo* (*Zhejiang Sci-Tech University*);

00:00 Compact Millimeter-wave Triple-layer Substrate-integrated Waveguide 12×12 Butler Matrix and Its Multibeam Antenna Application
Junteng Hu (*Nanjing University of Science and Technology*); *Ji-Wei Lian* (*Nanjing University of Science and Technology*);

00:00 Analysis of the Impact of Multiple Environmental Parameters on L-band Forward Scattering Coefficient Based on CYGNSS Data
Zihan Zhao (*Ocean University of China*); *Yunhua Wang* (*Ocean University of China*); *Fanwei Su* (*Ocean University of China*);

00:00 Simultaneous Surface Plasmon Resonance at Multi-wavelength Based on Aluminum Thin Films
Zhiying Chen (*Dalian University of Technology*); *Zihao Luo* (*Dalian University of Technology*); *Xue Han* (*Dalian University of Technology*);

00:00 Distributed Cooperative Spectrum Sensing Technology Based on Edge Computing
Mengbo Zhang (*National University of Defense Technology*); *Hui Feng* (*National University of Defense Technology*); *Yingke Lei* (*National University of Defense Technology*);

00:00 Machine Learning Approach for Accelerating Optimal Qubit Mapping
Wenjie Sun (*University of Electronic Science and Technology of China*); *Xiao Yu Li* (*University of Electronic Science and Technology of China*); *Lianhui Yu* (*University of Electronic Science and Technology of China*); *Zhigang Wang* (*University of Electronic Science and Technology of China*); *Geng Chen* (*University of Electronic Science and Technology of China*); *Guowu Yang* (*University of Electronic Science and Technology of China*);

00:00 Fiber-facet-integrated Fluoride-glass Metasurfaces for High-performance Bessel Beam Array Generation
Chenyang Wu (*Pengcheng Laboratory*); *Ge Zhang* (*Pengcheng Laboratory*); *Zhen Zhen* (*Pengcheng Laboratory*); *Hui Chen* (*Pengcheng Laboratory*); *Siyue Jin* (*Pengcheng Laboratory*); *Lei Wang* (*Pengcheng Laboratory*);

00:00 Strong Coupling of Hybrid Photonic-plasmonic Quasiparticles in Mid-infrared hBN-based Heterostructures
Ying Liu (*National University of Defense Technology*); *Xu Yang* (*National University of Defense Technology*); *Yi Shen* (*National University of Defense Technology*); *Chengbin Han* (*Nanjing University of Science and Technology*); *Shangjing Xu* (*Nanjing University of Science and Technology*); *Liyong Jiang* (*Nanjing University of Science and Technology*);

00:00 Optimization of Gain for the Dual-MCP Multiplication System
Weijie Jiang (*Jinling Institute of Technology*); *Shulin Liu* (*Institute of High Energy Physics (IHEP) of CAS*); *Xingchao Wang* (*North Night Vision Technology (NNVT) CO., LTD*); *Lin Chen* (*Jinling Institute of Technology*); *Weijie Jiang* (*Jinling Institute of Technology*); *Liping Tian* (*Jinling Institute of Technology*);

00:00 Radiation and Scattering Analysis of Embedded Omnidirectional Vertical-polarization Antennas
Longjian Zhou (*Southwest University of Science and Technology*); *Haonan Huang* (*Southwest University of Science and Technology*); *Qiangming Cai* (*Southwest University of Science and Technology*); *Xin Cao* (*Southwest University of Science and Technology*);

00:00 Design and Simulation of Charge Pump Phase-locked Loop
Xin-Hong Liu (*Beijing Information Technology College*);

00:00 Microwave Linear Polarization Direction Measurement Based on Microwave-induced Thermoacoustic Effect
Shimeng Xie (*University of Electronic Science and Technology of China*); *Lin Huang* (*University of Electronic Science and Technology of China*);

00:00 Retrieval Forecasting of Global Total Precipitable Water Using Deep Neural Networks from FY-3D MWHS-II Data
Xiaoyan Zhang (*Fudan University*); *Geng-Ming Jiang* (*Fudan University*);

00:00 Field Analysis of Dual Port Electromagnetic Radiation Cavity Based on XGBoost
Shiqi Wang (*Shenyang City University*);

00:00 An Intelligent Dual-mode Reconfigurable Metasurface for Integrated Stealth and Communication
Zhihao Guo (*Air Force Engineering University*); *Fangyuan Qi* (*Air Force Engineering University*); *Yongfeng Li* (*Air Force Engineering University*); *Zhe Qin* (*Air Force Engineering University*); *Jiechu Liu* (*Air Force Engineering University*); *Lixin Jiang* (*Air Force Engineering University*); *Hao Yang* (*Air Force Engineering University*); *Shulei Zhang* (*Air Force Engineering University*); *Wenjie Wang* (*Air Force Engineering University*); *Hongya Chen* (*Air Force Engineering University*); *Lin Zheng* (*Air Force Engineering University*); *Jiafu Wang* (*Air Force Engineering University*);

00:00 Moth Eye Nanostructures with Enhanced Antireflection on Curved Surfaces and Fibre Optics
Zhaolu Diao (*Max Planck Institute for Medical Research*); *J. P. Spatz* (*Max Planck Institute for Medical Research*);

00:00 Binary-valued Modulation for Optimized High-order Sidelobe Reduction in Waveguide Slot Antenna Arrays
Ze Yu (*The 38th Research Institute of China Electronic Technology Group Corporation*); *Hao Fan* (*The 38th Research Institute of China Electronic Technology Group Corporation*); *C. Chen* (*University of Science and Technology of China*); *Weidong Chen* (*University of Science and Technology of China*);