

2025 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications (IEEE MTT-S IMWS-AMP 2025)

Final Technical Program

July 23-26, 2025
Wuxi, China

Organizers



Co-Organizers



Technical Co-Sponsors



IEEE IMWS-AMP 2025 Program at A Glance

Jul 23, 2025 (Wednesday)	14:30-18:00		Registration (Third Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center)					
Jul 24, 2025 (Thursday)	7:30-18:00		Registration (Third Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center)					
	Time		Room 1					
	9:00-9:30	AM 1	Opening Ceremony					
	9:30-10:10		Keynote Session 1: Hanming Wu					
	10:10-10:40	AM 2	Tea Break					
	10:40-12:00		Keynote Session 2: Sheng-Cai Shi, Ke Wu					
	12:00-13:30		Lunch					
	Time		Room 1	Room 2	Room 3	Room 4	Poster Area	
	13:30-15:30	PM 1	[WS1] Advancement in Microwave Material & Process	[S01] Meta for Antenna & Array	[S02] LC Antenna	[S03] Advanced EM System	Student Paper Contest	
	15:30-15:50		Tea Break					
	15:50-17:50	PM 2	[WiM] Women in Microwave	[S04] Programmable Metasurface	[S05] Device & System	[S06] Material & Process for WPT		
	18:30-20:00		Welcome Reception (1F, Radisson Collection Hotel)					
Jul 25, 2025 (Friday)	7:30-18:00		Registration (Third Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center)					
	Time		Room 1	Room 2	Room 3	Room 4	Room 5	
	8:00-10:00	AM 1	[S21] WPT & Communication	[S07] Material for Multifunctional RF	[S08] Multi-Functional Antenna	[S09] Radar Sensing & Imaging	Ph.D. Travel Grant Session	
	10:00-10:20		Tea Break					
	Time		Room 1					
	10:20-12:20	AM 2	Keynote Session 3 / IMWS-AMP 10 th Anniversary Celebration Session I: Yang Hao, Fushun Nian, Long Miao					
	12:20-13:30		Lunch					
	Time		Room 1	Room 2	Room 3	Room 4	Poster Area	
	13:30-15:30	PM 1	IMWS-AMP 10 th Anniversary Celebration Session II	[WS2-1] Functional Materials-Based Device & System	[S10] Metamaterial for Antenna & Device	[S11] Antenna & Wireless Communication	[PS-A] Poster Session A	
		15:30-15:50		Tea Break				
	15:50-17:50	PM 2	[S12] Antennas & Devices	[WS2-2] Functional Materials-Based Device & System	[S13] Material & Process for THz	[S14] Metasurface & FSS		
	19:00-21:00		Banquet (3F, Radisson Collection Hotel)					
Jul 26, 2025 (Saturday)	7:30-12:00		Registration (Third Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center)					
	Time		Room 1	Room 2	Room 3	Room 4	Poster Area	
	8:00-10:00	AM 1	[WS3-1] mmW/THz Photonic-Electronic Technology	[S15] mmW & THz IC	[S16] EM Stealth	[S17] 3D RF Circuit and System		
	10:00-10:20		Tea Break					[PS-B] Poster Session B
	10:20-12:20	AM 2	[WS3-2] mmW/THz Photonic-Electronic Technology	[S18] RF Integration Technology	[S19] Antenna for Communication	[S20] Integrated Device & Circuit		
	12:20-13:30		Lunch					
	13:30-15:30	PM 1	WS4] Workshop for THz Measurement	[S22] Magnetic Material-Based Devices	[S23] Solid-State Circuit & System	[S24] RF & THz Circuit & System		
	15:30-15:50		Tea Break					
	15:50-17:50	PM 2	[S25] Microwave/mmW/THz Imaging	[S26] Meta & RIS	[S27] Antenna for WPT & WEH	[S28] THz Waveguide		

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Qingdao Research Institute

香港城市大學
City University of Hong Kong

Co-Organizers



香港城市大學
City University of Hong Kong



新加坡国立大学苏州研究院
NUS (Suzhou) Research Institute



中国电子科技集团公司第五十五研究所



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SINGAPORE

2025 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications

Organizers

Jiangsu Integrated Circuit Application Technology Innovation Center

City University of Hong Kong (CityUHK) Qingdao Research Institute

Co-Organizers

Wuxi Industrial Innovation Research Institute (WIIRI)

Ceyear Technologies Co. Ltd

City University of Hong Kong

Nanjing University of Aeronautics and Astronautics (NUAA)

National University of Singapore (Suzhou) Research Institute

The 55th Research Institute of China Electronics Technology Group Corporation (CETC55)

National Key Laboratory of Solid-State Microwave Devices and Circuits

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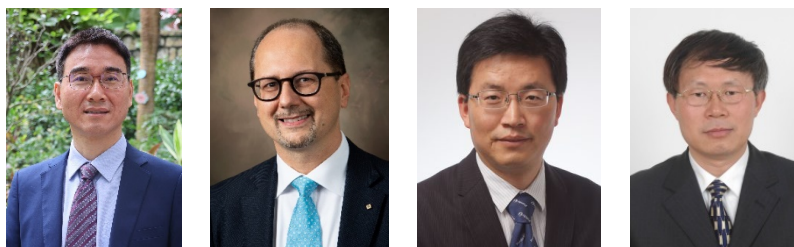
Welcome Message from the General Chairs

On behalf of the organizing committee, and with great pleasure, we warmly welcome you to the 2025 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications (IEEE MTT-S IMWS-AMP 2025) to be held in Wuxi, China from July 23, 2025 to July 26, 2025. The organizing committee has put together a comprehensive technical program to facilitate the exchange of information on the progress and advancements of Advanced Materials and Processes for RF and THz applications, along with a memorable and entertaining social program.

IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications (IEEE MTT-S IMWS-AMP 2025) is organized by Jiangsu Integrated Circuit Application Technology Innovation Center and City University of Hong Kong Qingdao Research Institute, and co-organized by Wuxi Industrial Innovation Research Institute, Ceyear Technologies Co. Ltd, City University of Hong Kong, Nanjing University of Aeronautics and Astronautics, National University of Singapore (Suzhou) Research Institute, the 55th Research Institute of China Electronics Technology Group Corporation and National Key Laboratory of Solid-State Microwave Devices and Circuits. The purpose of this workshop platform is to boost and promote MTT-S technical and educational activities as well as MTT-S international exchanges and collaborations. The IEEE MTT-S IMWS-AMP 2025 brings in a unique mix of high-quality keynote, invited and contributed papers. In particular, we urge you not to miss our keynote and invited talks, featuring innovative and enabling technologies on Advanced Materials and Processes for RF and THz applications, by world-class speakers from the industry and academia.

In addition to the comprehensive technical and scientific program and exciting social events, the IEEE MTT-S IMWS-AMP 2025 also offers you ample opportunities to explore the most vibrant Wuxi. You will be enthralled by the multitude of entertainment and leisure options available, not to mention the mouth-watering foods that you can sample and the captivating scenery that will leave you enchanted in Wuxi. We invite you to come and enjoy all these wonderful activities specially organized for you, see old friends and make new ones.

We look forward to welcoming you all in the City of Wuxi!



Yong Xin Guo, *General Chair, City University of Hong Kong, China*

Maurizio Bozzi, *General Co-Chair, University of Pavia, Italy*

Kaixue Ma, *General Co-Chair, Tianjin University, China*

Fushun Nian, *General Co-Chair, Ceyear Technologies Co. Ltd, China*

Welcome Message from the TPC Chairs

On behalf of the Technical Program Committee (TPC), we cordially welcome you to the 2025 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications (IEEE MTT-S IMWS-AMP 2025), held in Wuxi, China.

Thanks to the dedicated efforts of all the TPC members, we are proud to present a diverse and well-structured technical program that highlights emerging topics central to the advancement of wireless technologies. This year, we received **356 paper submissions** from **14 countries and regions**, of which **290 were accepted**. All submissions were rigorously reviewed by TPC members, who evaluated their technical merit and relevance to the community.

The accepted papers will be featured across **28 oral sessions**, **5 workshops**, and **3 poster sessions**. We are also excited to commemorate the **10th Anniversary of IMWS-AMP** with **celebration sessions** during the workshop.

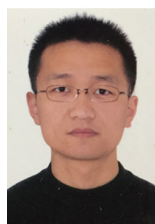
In addition, **six distinguished specialists** will deliver **Keynote Speeches** on emerging and impactful topics in microwave technologies. The TPC also received a number of applications for the Best Student Paper Award. After the thorough peer review, **31 papers** have been selected to compete in the **Best Student Paper Contest**.

This year's technical program covers a wide spectrum of topics in advanced materials and processes for RF and THz applications. On behalf of the TPC, we extend our heartfelt appreciation to all contributing authors, TPC members, session organizers, reviewers, and chairs who made this program possible. We are especially grateful to IEEE MTT-S for its strong and continued support of this workshop.

We hope that IMWS-AMP 2025 provides you with a fruitful and enjoyable experience.



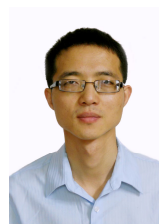
Siping Gao



Hui Chu



Jianqin Deng



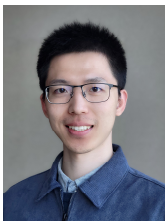
Wenhua Gu



Yuechan Kong



Bian Wu



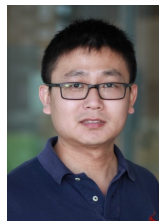
Fan Wu



Yafei Wu



Yongle Wu



Yang Yang



Fangjie Yu

Siping Gao, Hui Chu, Jianqin Deng, Wenhua Gu, Yuechan Kong, Bian Wu, Fan Wu, Yafei Wu, Yongle Wu, Yang Yang, Fangjie Yu, Technical Program Committee Co-Chairs

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General Co-Chairs

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Kaixue Ma, Tianjin University, China

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Yuechan Kong, the 55th Research Institute of China Electronics Technology Group Corporation, China

Bian Wu, Xidian University, China

Fan Wu, Southeast University, China

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Dinghong Jia, Ceyear Technologies Co. Ltd, China

Conference Secretariat

Han Wang, City University of Hong Kong, China

Jingyuan Zhang, City University of Hong Kong, China

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Maurizio Bozzi

Zengdi Bao

Yang Cao

Ke Chen

Shichang Chen

Wenhua Chen

Zhe Chen

Zihao Chen

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Yifei Zhang
Yiming Zhang
Yueping Zhang
Zhan Zhang
Zhechen Zhang
Junming Zhao
Yizhe Zhao
Shaoyong Zheng
Kang Zhou
Shigang Zhou
Haoran Zhu
He Zhu
Weiren Zhu

Session Information

INFORMATION FOR ORAL PRESENTERS

Presenters are required to meet their session chairs in their session rooms at least 10 minutes prior to the beginning of their sessions. Each session room will be equipped with a computer and a projector which is the only permissible projection system. Each presenter **MUST** use the session's computer for his/her presentation, and the presentation file must be loaded into the computer in each session room in advance. Any delay due to the presenter's disregard of this instruction will result in reduced time for his/her presentation.

Each presenter is suggested to run a trial of his/her presentation in advance in his/her session room to see if there is any issue with format, special symbols, presentation length and animations etc. All regular oral presentations are limited to 15 minutes, invited talks are limited to 30 minutes (including Q&A). The Session Chairs will remind the presenters when there are only 5 minutes left for each presentation.

Assistance and helps are available at the registration desk. Please remember that due to the very large number of presentations and a tight schedule, having your presentation files ready for presentation by loading it into the computer in your session room ahead of your session time is very important.

INFORMATION FOR POSTER SESSION PRESENTATIONS

Presenters are required to put up their posters 10 minutes prior to the beginning of their sessions. Each normal poster presentation will last about 140 minutes. During this time, the presenter must stand by the display board to answer questions and discuss about the contents of the poster. The poster display should include a statement of the topic, objectives of the research or project, the methodology used to solve the problem or to develop the computer program, the major findings or outcomes and their significance and conclusions. There should be a logical flow of ideas and concepts in your poster - introduction, development and conclusion.

The heading of your poster should be large enough, at least 3cm high. The heading should include the title of the poster, all author names and institutional affiliations. The recommended poster size is A0-size (Width 84.1 cm × Height 118.9 cm). Pins or tapes are provided on site by the conference for mounting your poster on the board. All materials to be displayed should be prepared before your arrival. Supplies will not be available at the conference site.

General Information

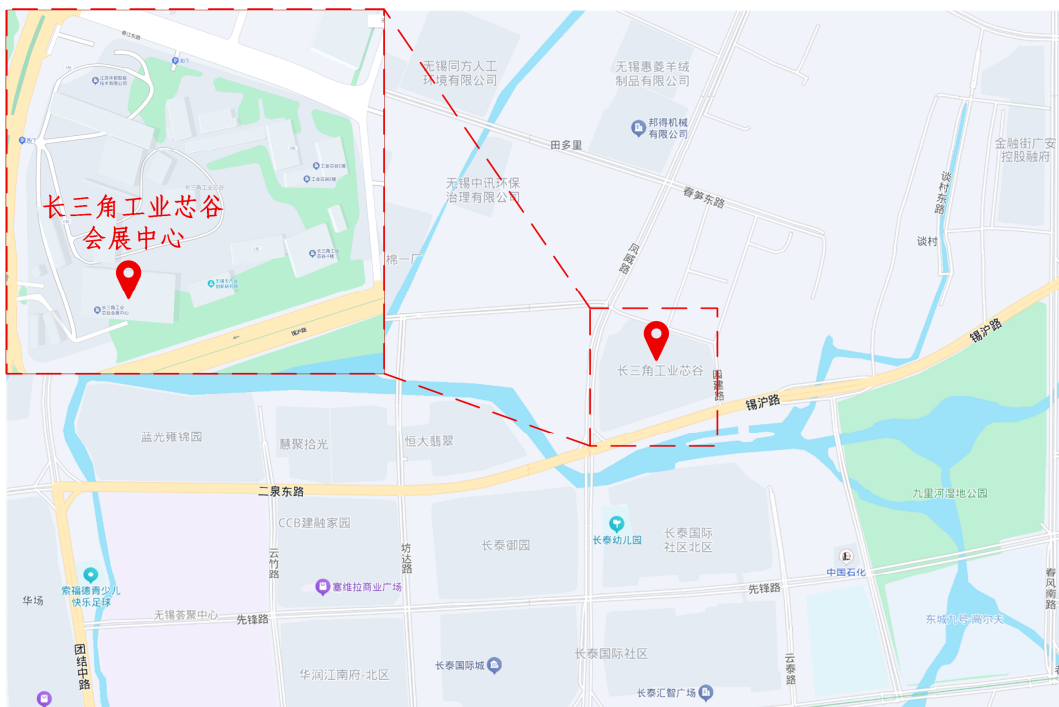
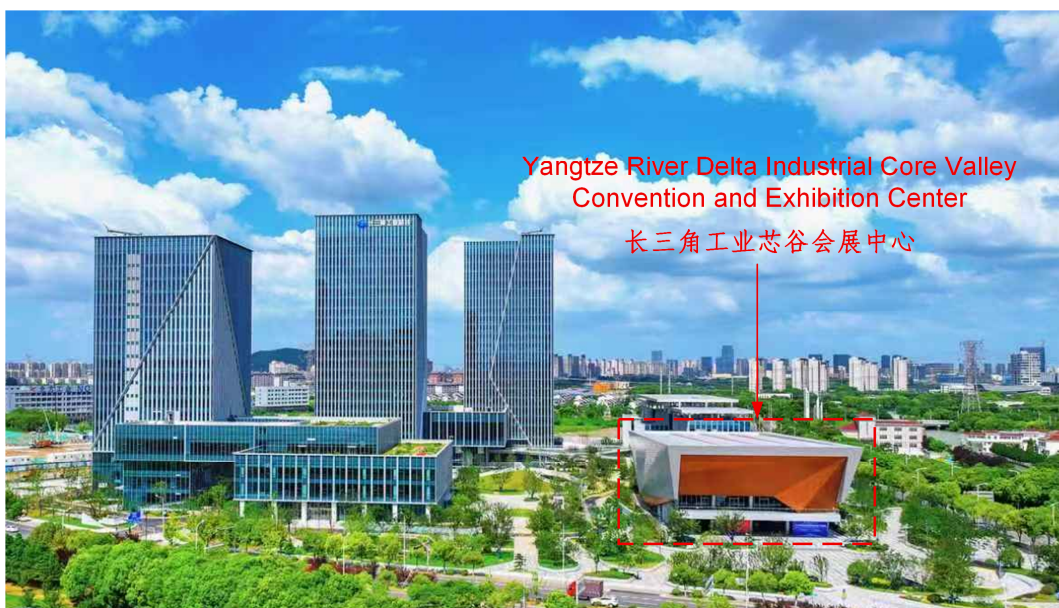
CONFERENCE VENUE

Yangtze River Delta Industrial Core Valley Convention and Exhibition Center

长三角工业芯谷会展中心

Address: No. 9 Fengwei Road, Xishan District, Wuxi, Jiangsu, China

地址：江苏省无锡市锡山区凤威路9号



HOTEL INFORMATION

We offer great deals in a range of hotels, located close to the conference venue. If you require accommodation during the conference, please contact Mr. Zhou (Radisson Collection Hotel) and Ms. Jiang (No.1 Seaview Restaurant & Hotel). The number of rooms available for reservation is limited, please confirm your itinerary as soon as possible to secure your booking. All hotels with reserved rooms and prices are presented below:

1. Radisson Collection Hotel, Wuxi (无锡丽笙精选酒店)



Distance to the conference venue: 5.1 km

Address: No.69 Middle Dongting Road, Xishan District, Wuxi

Preferential Rate: 480 CNY Per Night for Collection Superior Room Including Breakfast

优惠价格: 人民币 480 元/晚 含早餐 (精选高级大床房 (2 米大床))

Contact Number: +86 13912491758 (Mr. Zhou 周经理)

Contact Email Address: olen.zhou@radissoncollection-wuxi.com (Mr. Zhou 周经理)

2. No.1 Seaview Restaurant & Hotel (无锡海景壹号大酒店（荟聚宜家店）)



Distance to the conference venue: 1.3 km

Address: No. 17 Erquan East Road, Xishan District, Wuxi

Preferential Rate: 338 CNY Per Night for Business Single Room Including Breakfast

优惠价格: 人民币 338 元/晚 含早餐（商务大床房（1.8 米大床））

Contact Number: +86 13921545223 (Ms. Jiang 蒋经理)

Contact Email Address: 171655458@qq.com (Ms. Jiang 蒋经理)

Notes:

- IMWS-AMP 2025 conference will arrange shuttle bus between conference venue and the above hotels.
- For hotel reservation, please inform that you are attendees of the IEEE MTT-S IMWS-AMP 2025 international academic conference (请向酒店方表明本人是 IEEE MTT-S IMWS-AMP 2025 国际学术会议参会人员) in order to obtain the preferential rate as shown above.

REGISTRATION INFORMATION

The IEEE MTT-S IMWS-AMP 2025 Registration will be opened on the third floor of Yangtze River Delta Industrial Core Valley Convention and Exhibition Center according to the following schedule:

Venue	Date	Time
3rd Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center	July 23, 2025 (Wednesday)	14:30-18:00
	July 24, 2025 (Thursday)	7:30-18:00
	July 25, 2025 (Friday)	7:30-18:00
	July 26, 2025 (Saturday)	7:30-12:00

The registration fee is shown on the following table. If you have pre-registered, your name badge and Technical Program book will be ready for you to pick up during the above conference registration time. Please wear your name badge throughout the conference. Access will be prohibited to the exhibition, tea break, and technical sessions if a name badge is not present.

Registration Fee Per Person – Including Prevailing Taxes		
	Early-Bird Registration By 31 May, 2025	Regular Registration After 31 May, 2025
IEEE MTT-S Member	USD 410 (RMB 3,000)	USD 550 (RMB 4,000)
IEEE Member	USD 450 (RMB 3,300)	USD 590 (RMB 4,300)
Non-IEEE Member	USD 570 (RMB 4,100)	USD 740 (RMB 5,400)
IEEE MTT-S Student Member	USD 290 (RMB 2,100)	USD 340 (RMB 2,500)
IEEE Student Member	USD 310 (RMB 2,200)	USD 360 (RMB 2,600)
Student (Non-IEEE Member)	USD 390 (RMB 2,800)	USD 450 (RMB 3,300)

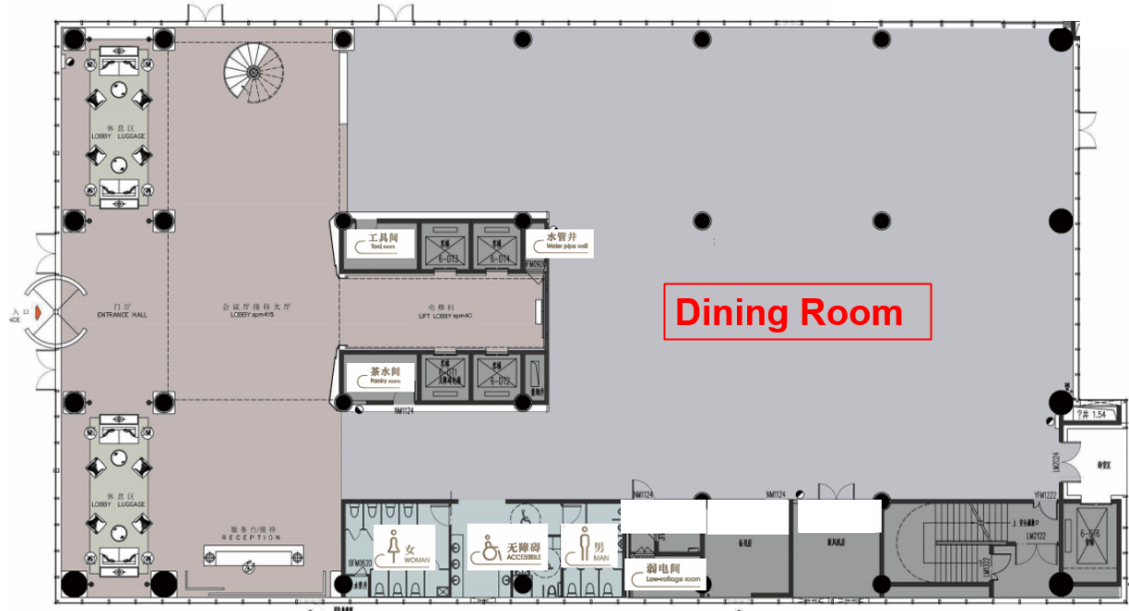
ONE Registration for ONE participant includes (for all the registration categories):

- Access to the technical sessions and exhibition;
- Refreshment;
- Lunch;
- Welcoming Reception;
- Banquet.

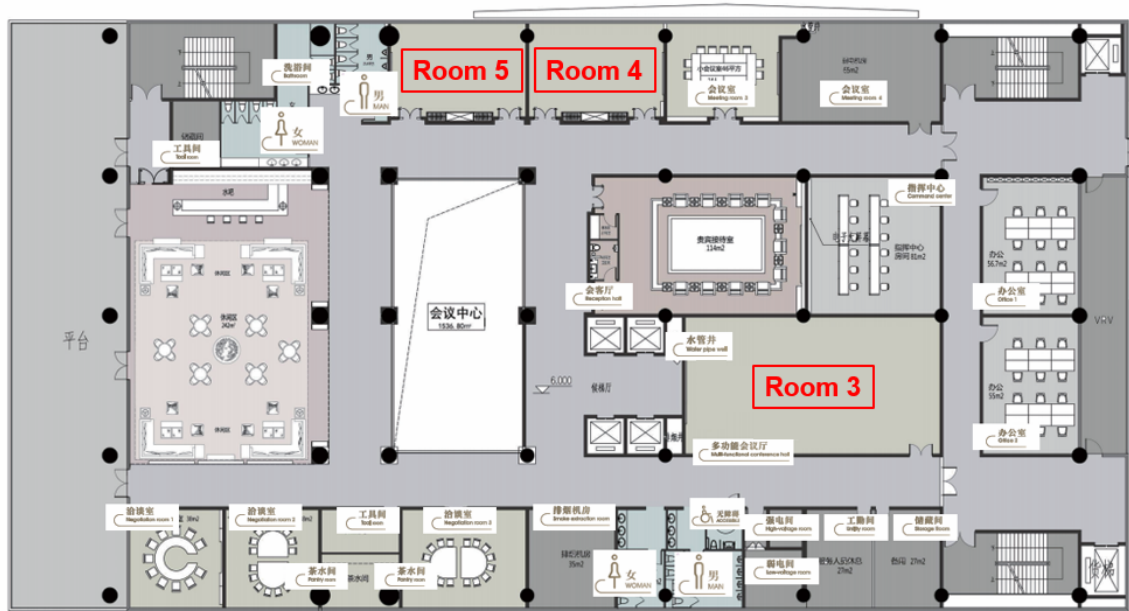
Please ensure that you receive the coupons for luncheons and conference banquet when you register at the conference desk. **Additional banquet coupons are also available at RMB 250 per coupon.** Please note that the banquet coupons have limited availability and are allocated on a first-come, first-served basis.

Conference Venue Layout

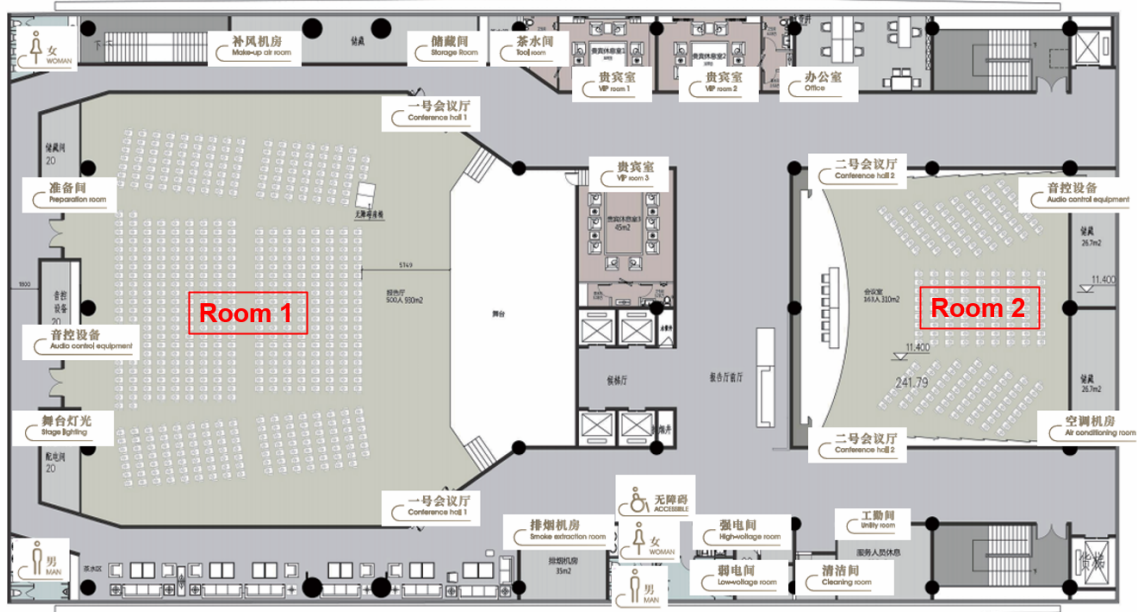
First Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center



Second Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center



Third Floor, Yangtze River Delta Industrial Core Valley Convention and Exhibition Center



Best Student Paper Contest

Based on the reviewers' scores and comments, as well as the relevance to the conference theme, 31 student papers are shortlisted. All contestants are to attend **an additional poster session** from 13:30 to 15:50 on Thursday, July 24. All finalists should observe **formal dress code** for the session. The winners will be announced at the Conference Banquet on the evening of July 25, 2025.

Shortlisted Student Papers

1. ***MRC-WPT System with Simultaneously Load-Independent Power and Efficiency Through Improved Impedance Compression Matching***
Xiaozhou Zhou, Shiyang Luo, Wenlong Zhou, Hao Zhang and He Guan (Northwestern Polytechnical University)
2. ***A Gain-Enhanced THz Omnidirectional Antenna-in-Package Based on TGV Technology for Chip-to-Chip Wireless Interconnect Applications***
Gang Zhuang (University of Electronic Science and Technology of China)
3. ***Optimal Gain of Implanted Huygens Source Antenna and Effect of Encapsulation Material***
Jiajun Li (École Polytechnique Fédérale de Lausanne); Mingxiang Gao (EPFL & IT'IS Foundation); Zvonimir Sipus (University of Zagreb); Anja K. Skrivervik (EPFL)
4. ***A 0.01-18 GHz Ultra Broadband LNA with Hybrid Output and Feedback Network***
Jianeng Wang and Jianrui Chen (University of Electronic Science and Technology of China); Jie Liu and Yuxuan Zhu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
5. ***Radiation Characteristic Prediction by Equivalent Huygens' Source Method***
Mengzhen Wang, Ruizhi Liu and Weijian Si (Harbin Engineering University); Ke Wu (University of Montreal)
6. ***A Low Quiescent Current, High Transient Response Low-Dropout Regulator for Vehicle-Mounted LiDAR Applications***
Tianjun Sun, Yongqing Wang, Jinhang Zhang and Xinyan Hu (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences (Beijing))
7. ***Secure Wireless Communication with Movable Time-Modulated Metasurfaces***
Jie Ma and Yue Ma (Nanjing University of Science and Technology); Ruiqian Ma and Zhi Lin (National University of Defense Technology); Ruoyu Zhang, Chen Miao and Wen Wu (Nanjing University of Science and Technology)
8. ***A 14-GHz Small Cell PA MMIC in 0.3- μ m GaAs for Ground Terminal of Satellite Communication***
Yanshen Huang and Yijie Zhang (University of Electronic Science and Technology of China); Yuxuan Zhu and Jie Liu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang and Ziao Wang (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)

9. ***A Programmable Metasurface Design for Integrated Control of Radiation and Reflection Waves***
Chao Song, Han Wei Tian and Wei-Xiang Jiang (Southeast University)
10. ***A Tunable Broadband on-Chip Transformer Based on Magnetic Coupling***
Wang Fangqian, Guangbao Shan, Yanwen Zheng, Ruixin Wang and Xiang Fan (Xidian University)
11. ***Simulation Study of AlN/AlxGa1-xN/GaN Graded Channel High Electron Mobility Transistors for High Linearity and High E-Field Applications***
Mao teng Lu, Minhan Mi, Pengfei Wang and Xiang Du (Xidian University)
12. ***Semi-Lumped Absorptive Millimeter-Wave Bandpass Filter Based on GaAs IPD Technology***
Yifan Wang, Jiang Hu and Daxu Zhang (University of Electronic Science and Technology of China)
13. ***A Compact Dual-Band Dual-Mode Shared-Aperture Antenna for Wearable Devices***
Yi-Xuan Zeng, Chao Zhang and Zhen-Guo Liu (Southeast University)
14. ***Multi-Material Additively Manufactured Wideband Millimeter-Wave Butler Matrix***
Zhiwei Yin and Yang Yang (University of Technology Sydney); He Zhu (CSIRO)
15. ***A Broadband Filtering Power Divider Using Interdigital Capacitors and Microstrip Inductors***
Chonghang Yin (Beijing University of Posts and Telecommunications); Yongle Wu (Beijing University of Posts and Telecommunications); Shuchen Zhen (Beijing University of Posts and Telecommunications); Weimin Wang (Beijing University of Posts and Telecommunications)
16. ***An Ultra-Low Voltage Rail-to-Rail Bulk-Driven Amplifier for Drone-Mounted Radar Application***
Hongjie Zheng, Yongqing Wang, Shengyan Zhang and Tianjun Sun (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences(Beijing))
17. ***A High-Frequency Inductance Model of Through Silicon Vias Based on Partial Inductance Method***
Junyi Hu and Haoran Zhu (Anhui University)
18. ***Interference Mitigation for FMCW Radar Based on Deep Unfolding Feature Learning***
Yinghao Cheng, Shunjun Wei, Hao Zhang, Mou Wang, Jun Shi, Chenglin Song and Wang Zi (University of Electronic Science and Technology of China)
19. ***A Dual-Band Dual-Mode Wearable Antenna with Different Beam Directions for off-Body Communications in Emergency Rescue Scenarios***
Ziang Xu, Xiang Gao, Kun Guo and Wenfei Tang (Beijing Institute of Technology)
20. ***Decoupled, Omnidirectional, and Broadband NFRP Dipole Antenna Pair for Indoor Wireless Terminals***
Xingxing Li, Yunlu Duan, Da Yi and Ming-Chun Tang (Chongqing University); Xing-Chang Wei and Er-Ping Li (Zhejiang University)
21. ***Dual-Band Filter with Wide Bandwidth Based on an Inverted-L-Shaped Coaxial Sleeve Structure***
Mengyu Liu, Zhanzhi Liu, Yingying Ban, Yanqun Liu and Gang Zhang (Nanjing Normal University)
22. ***A 220-250 GHz Compact Active Phase Shifter with Low Phase Error***
Zhengcong Tang (University of Electronic Science and Technology of China); Yinian Feng (University of Electronic Science and Technology of China & ESE); Bo Zhang and Zhongqian Niu (University of Electronic Science and Technology of China)
23. ***Arrhythmia Classification Based on Distribution Encoding Network with Biomedical Radar***
Jie Cao and Li Wen (Shanghai Jiao Tong University); Shuqin Dong (City University of Hong Kong);

Min Tang, Yijing Guo and Chengxing Shen (Shanghai Sixth People's Hospital); Changzhan Gu (Shanghai Jiao Tong University)

24. ***Design of Millimeter-Wave Y-Junction Circulator Based on Gap Waveguide Technology***
Yifan Yang (Xi'an Jiaotong University); Yun Li (China); Ziyao Wang and Ying Zhu (Xi'an Jiaotong University); Zhenxin He (Beijing Aerospace Micro-Electronics Technology Co, Ltd); Qian Yang (Xi'an Jiaotong University)
25. ***A Broadband Dual-Polarized Tightly Coupled Transmitarray Antenna***
Dian Li, Mengzhi Hou, Long Zhang and Yejun He (Shenzhen University); Steven Shichang Gao (Chinese University of Hong Kong)
26. ***A Multimode-OAM Imaging with Gaussian Filters for 2D Dielectric Targets with Arbitrary Shapes and Its Symmetrical Investigation***
Yuefei Hu, Jun Hu, Huangyan Li and Yao Chen (Nanjing University of Science and Technology)
27. ***Design of a Dual-Orthogonal TE₁₁ Mode Polarization Duplexer Based on Standard PCB Technology***
Kai Wang and Chunhong Chen (Nanjing University of Science and Technology); Yi Xiao (Nanjing University of Aeronautics and Astronautics); Junjie Wu (Southeast University)
28. ***A Compact Substrate Integrated Waveguide Diplexer Using Fundamental Dual-Mode Resonances***
Ziheng Cao (The Hong Kong Polytechnic University & Eastern Institute of Technology, Ningbo); Kang Zhou (Eastern Institute of Technology, Ningbo)
29. ***Impact of Temperature on Threshold Voltage Drift in AlN/GaN MIS-HEMTs***
Huilin Li, Jiejie Zhu, Lingjie Qin, Simei Huang and Xiaohua Ma (Xidian University)
30. ***A Ku-Band LNA for Satellite Communication in 0.3- μ m GaAs Process***
Ronglin Chen (University of Electronic Science and Technology of China); Jie Liu and Yuxuan Zhu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang, Xinyan Li and Shu Ma (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
31. ***A Spherically Conformal Transmit-Array Antenna with High Gain and Steerable Beam***
Chuanfei Ding, Xiang Gao and Jianping An (Beijing Institute of Technology)

IMWS-AMP 2025 Keynote Speeches

Thursday, July 24, 2025, Room 1

- 9:30-10:10** **Enhancing the Pipeline for Integrated Design and Manufacturing Talent:
Promoting Silicon Verification via MPW**
Hanming Wu (Zhejiang University)
- 10:40-11:20** **Superconducting Detectors for Applications from Astronomy to Quantum
Science**
Sheng-Cai Shi (Purple Mountain Observatory, Chinese Academy of Science)
- 11:20-12:00** **Recent Advances in Millimeter-wave and Terahertz Waveguide Integration
for Broadband Systems and Ultrafast Electronics**
Ke Wu (University of Montreal)

Friday, July 25, 2025, Room 1

- 10:20-11:00** **Material Discovery via Machine Learning and Research Lab Automation**
Yang Hao (Queen Mary University of London, United Kingdom)
- 11:00-11:40** **Latest developments of Microwave Vector Network Parameter
Measurement Technologies**
Fushun Nian (Ceyear Technologies Co. Ltd)
- 11:40-12:20** **Development and Application of Advanced Glass-based Processing
Technology**
Long Miao (Member Unit of the Liquid Crystal Division, China Optics and
Optoelectronics Manufacturers Association (COEMA))

Keynote Speech 1

Thursday, July 24, 09:30-10:10

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Enhancing the Pipeline for Integrated Design and Manufacturing Talent: Promoting Silicon Verification via MPW



Professor Hanming Wu
Zhejiang University, China

Hanming Wu was born in June 1952, in Changzhou, Jiangsu Province. He is an expert in microelectronics technology (integrated circuit manufacturing) and was elected as Academician of the Chinese Academy of Engineering in 2019. Currently, he serves as Dean of the School of Integrated Circuits at Zhejiang University. He has long been engaged in China's integrated circuit chip industry and has made outstanding contributions.

He led or participated in the R&D of mass production process technologies for seven generations of chips (from 0.13 μm to 14 nm) under National Major Special Projects, overcoming key technical challenges including etching processes, thereby narrowing the gap with the world's advanced level to 3-5 years.

He has published 116 academic papers and holds 67 authorized invention patents. As a principal contributor, he won four provincial/ministerial-level first prizes, including three National Science and Technology Progress Awards (Second Prize).

Keynote Speech 2

Thursday, July 24, 10:40-11:20

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Superconducting Detectors for Applications from Astronomy to Quantum Science



Professor Sheng-Cai Shi

Purple Mountain Observatory, Chinese Academy of Sciences, China

Sheng-Cai Shi is a senior researcher and doctoral supervisor of the Purple Mountain Observatory (PMO) of the Chinese Academy of Sciences, and is also the chief scientist of the Millimeter and Submillimeter Wave Laboratory at PMO. Currently, he serves as the chair of the PMO's academic committee and the chair of the radio astronomy division of the Chinese Astronomical Society. He graduated from Southeast University (former Nanjing Institute of Technology) in 1985, received a master's degree from the Purple Mountain Observatory in 1988 and a doctor's degree from Japan's Graduate University for Advanced Studies in 1996. He was awarded the Distinguished Young Researcher Scholarship from the National Natural Science Foundation of China in 1998, was awarded the Ho-Leung-Ho-Lee Foundation Science and Technology Progress Award in 2019, and was elected as an academician of the Chinese Academy of Sciences in 2021.

Keynote Speech 3

Thursday, July 24, 11:20-12:00

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Recent Advances in Millimeter-wave and Terahertz Waveguide Integration for Broadband Systems and Ultrafast Electronics



Professor Ke Wu
University of Montreal, Canada

Dr. Ke Wu is Industrial Research Chair in Future Wireless Technologies and Professor of Electrical Engineering with Polytechnique Montréal (University of Montreal). He was the Canada Research Chair in RF and millimeter-wave engineering, NSERC-Huawei Endowed Chair, and the Founding Director of the Center for Radiofrequency Electronics Research of Quebec, and the Director of Poly-Grames Research Center. He has authored/co-authored over 1500 referred technical papers, and many books/book chapters and filed more than 90 patents. Dr. Wu was the organizer of numerous conferences and events including the General Chair of the 2012 IEEE MTT-S International Microwave Symposium (IMS - the largest IEEE annual conference). He was the 2016 President of the IEEE Microwave Theory and Technology Society (MTT-S). He also served as the two-terms inaugural representative of North America in the General Assembly of the European Microwave Association (EuMA). He was the recipient of many awards and prizes including the 2019 IEEE MTT-S Microwave Prize, the 2021 EIC Julian C. Smith Medal, 2022 IEEE MTT-S Outstanding Educator Award, 2022 IEEE AP-S John Kraus Antenna Award, and the 2025 IEEE MTT-S Pioneer Award. He was an IEEE MTT-S Distinguished Microwave Lecturer. Dr. Ke Wu is a Fellow of the IEEE, the Canadian Academy of Engineering, and the Academy of Science of the Royal Society of Canada, and the German National Academy of Science and Engineering (acatech).

Keynote Speech 4

Friday, July 25, 10:20-11:00

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Material Discovery via Machine Learning and Research Lab Automation



Professor Yang Hao
Queen Mary University of London, United Kingdom
Fellow of the Royal Academy of Engineering
Fellow of IEEE

Professor Yang Hao is currently QinetiQ/Royal Academy of Engineering Research Chair at Queen Mary University of London, London, U.K. Over the years, he has led several major research projects with total funding exceeding £25 M as PI, which include his Directorship of £4.6 M EPSRC QUEST Programme Grant and Co-I and Management Board Membership of £23 M Cambridge Graphene Centre. His research has been recognized both nationally and internationally through his books *Antennas and Radio Propagation for Body-Centric Wireless Communications* and *FDTD Modeling of Metamaterials: Theory and Applications*, (Artech House, USA) and highly cited articles published in leading journals, including *Nature Communications*, *Advanced Science*, *Physical Review Letters*, *Applied Physics Letters*, *IEEE PROCEEDINGS*, and *IEEE Transactions*. These research results have been taken up by industry in the U.K. and overseas. He has supervised more than 80 PhD students and postdoctoral, employed by the industry and universities as a professor. Four of them set up respective spinouts. His research interests include transformation optics and metamaterials, which have led to many tangible benefits for a range of industrial products. One example is lens antenna designs for satellite communications. He has been instrumental in establishing a complete supply chain, entailing electromagnetic modelling, materials design and fabrication, lens structure manufacture, and antenna system development. This technology has been fully scoped and is currently commercialized under a \$100 M startup of Isotropic System Ltd. (All. Space), Berkshire, U.K.

Dr. Hao is an Elected Fellow of the Royal Academy of Engineering, IEEE and IET. He was the recipient of many accolades, including the Royal Society Wolfson Research Merit Award in 2013, the BAE Chairman's Silver Award in 2014, the AF Harvey Research Prize in 2015, and the Prestigious IEEE John Kraus Antenna Award and EurAAP Antenna Award in 2024. Internationally, he has achieved his reputation for his leadership in IEEE, being an Editor-in-Chief of the *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS* from 2013 to 2017 and founding a new open-access journal, *EPJ Applied Metamaterials*, dedicated to metamaterials research in 2015. He was an AdCom Member. He served as the Chair of the Publication Committee for IEEE Antennas and Propagation Society.

Keynote Speech 5

Friday, July 25, 11:00-11:40

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Latest Developments of Microwave Vector Network Parameter Measurement Technologies



Professor Fushun Nian
Ceyear Technologies Co., Ltd., China
The 41st Institute of CETC
Key Laboratory of Electronic Testing Technology, China

Fushun Nian is a Chief Scientist of CETC and Director of the Key Laboratory of Electronic Testing Technology. He was engaged in the R&D of microwave millimeter wave and THz test instruments with test frequency covering 100kHz-1.5THz, and developed a domestic universal test platform, and based on this platform he built many cutting-edge automatic test systems for ICs, on-wafer/on-chip antenna, 3D packing antenna, phased array antennas, massive MIMO beamforming/beamtracking antennas, stealth equipment RCS and other automatic test systems, to achieve independent innovation and independent controllable development.

Keynote Speech 6

Friday, July 25, 11:40-12:20

Room 1, Yangtze River Delta Industrial Core
Valley Convention and Exhibition Center

Development and Application of Advanced Glass-based Processing Technology



Dr Long Miao

**Member Unit of the Liquid Crystal Division, China Optics and
Optoelectronics Manufacturers Association (COEMA), China**

Long Miao is a Senior Engineer specializing in microwave and satellite communication systems. He is head of Communication Technology Team at Member Unit of the Liquid Crystal Division of COEMA.

Technical Program

9:30 - 10:10, Thu, July 24, 2025

Keynote Session 1

Room: Room 1

Chair: Kaixue Ma (Tianjin University)

**1 Enhancing the Pipeline for Integrated Design and Manufacturing Talent:
Promoting Silicon Verification via MPW**

9:30-10:10 Hanming Wu (Zhejiang University)

10:40 – 12:00, Thu, July 24, 2025

Keynote Session 2

Room: Room 1

Chairs: Wenhua Gu, Nanjing University of Science and Technology
Yujian Cheng, University of Electronic Science and Technology of China

**1 Superconducting Detectors for Applications from Astronomy to Quantum
Science**

10:40-11:20 Sheng-Cai Shi (Purple Mountain Observatory, Chinese Academy of Science)

**2 Recent Advances in Millimeter-wave and Terahertz Waveguide
Integration for Broadband Systems and Ultrafast Electronics**

11:20-12:00 Ke Wu (University of Montreal)

10:20 – 12:20, Fri, July 25, 2025

Keynote Session 3 & IMWS-AMP 10th Anniversary Celebration Session I

Room: Room 1

Chairs: Ke Wu (University of Montreal)
Yongxin Guo (City University of Hong Kong)

1 Material Discovery via Machine Learning and Research Lab Automation

10:20-11:00 Yang Hao (Queen Mary University of London, United Kingdom)

2 Latest developments of Microwave Vector Network Parameter Measurement Technologies

11:00-11:40 Fushun Nian (Ceyear Technologies Co. Ltd)

3 Development and Application of Advanced Glass-based Processing Technology

11:40-12:20 Long Miao (Member Unit of the Liquid Crystal Division, China Optics and Optoelectronics Manufacturers Association (COEMA))

13:30 - 15:30, Thu, July 24, 2025

Session: WS1

**Recent Advancement in Emerging Materials and Processing
Technologies for Microwave Technologies**

Room: Room 1

Organizers & Ye Han (Nanjing University of Posts and Telecommunications)

Chairs: Cristiano Tomassoni (University of Perugia)

Yang Yang (University of Technology Sydney)

WS1-1 Additive Manufacturing: emerging opportunities for microwave components (DML Talk*)

13:30-14:00 Cristiano Tomassoni (University of Perugia)

WS1-2 Millimeter-Wave 3D-Printed High-Gain Wideband Antenna Arrays (Invited)

14:00-14:30 Yujian Li, Fanqi Sun, Xiaojuan Wang, Zhengrong Lu (Beijing Jiaotong University)

WS1-3 Beam Scanning in Sub-Terahertz High-temperature Superconducting (HTS) Devices and Antennas (Invited)

14:30-15:00 He Zhu, Ting Zhang, Jia Du (Commonwealth Scientific and Industrial Research Organisation)

WS1-4 Research on the Progress of Advanced Passive Devices on 3D Printing Technology (Invited)

15:00-15:30 Gang Zhang (Nanjing Normal University)

*DML: Distinguished Microwave Lecturer

13:30 - 15:30, Thu, July 24, 2025

Session: S01

Meta for Antenna & Array

Room: Room 2

Organizers & Zhangjie Luo (Southeast University)

Chairs: Mei Li (Chongqing University)

Da Yi (Chongqing University)

S01-1 Low-Loss and Optically Transparent Periodic Structures for High-Frequency Electromagnetic Control (Invited)

13:30-14:00 Longzhu Cai (Southeast University)

S01-2 Terahertz Transmitarrays Based on Thin-Film Technology (Invited)

14:00-14:30 Linsheng Wu (Shanghai Jiao Tong University)

S01-3 Dual-Band Hyperuniform Spiral Antenna Array for Grating Lobe Suppression

14:30-14:45 Hongyu Zhang, Xiongbiao Wu, Jiachen Li and Yong Jin Zhou (Shanghai University)

S01-4 Design of an Electrically Small Wideband Omnidirectional Vertically Polarized Antenna with Filtering Characteristics

14:45-15:00 Yunlu Duan, Ming-Chun Tang, Da Yi and Mei Li (Chongqing University)

S01-5 Low Profile Optically Transparent Microwave Absorber with Broadband Absorption

15:00-15:15 Shengke Jiang, ZhiShan Chen, Zhuo Cheng, Yixin Weng, Jianjun Jiang and Ling Miao (Huazhong University of Science and Technology)

S01-6 PB-Phase-Enabled Reconfigurable Metasurface for Generating Multi-Mode Orbital Angular Momentum Waves

15:15-15:30 Ru Wang and Zhuo Li (Nanjing University of Aeronautics and Astronautics)

13:30 - 15:30, Thu, July 24, 2025

Session: S02

Liquid Crystal Phased Array Antenna

Room: Room 3

Organizers & Chairs: Feng Liang (University of Electronic Science and Technology of China)
Xiangru Wang (University of Electronic Science and Technology of China)
Fan Wu (Southeast University)

S02-1 Research Advances of Liquid Crystal Phased Array Antenna in UESTC

13:30-13:45 Feng Liang, Jiale Liu, Jin Liu, Chundi Wu, Xiangru Wang and Bing-Zhong Wang (University of Electronic Science and Technology of China)

S02-2 Low-Profile Circularly Polarized Liquid Crystal Folded Reflectarray Antenna

13:45-14:00 Jiale Liu, Feng Liang and Bing-Zhong Wang (University of Electronic Science and Technology of China)

S02-3 Tunable Topological Waveguide States Based on Liquid Crystals in a Heterostructure

14:00-14:15 Yulin Zhao (Chengdu Aeronautic Polytechnic, China & University of Electronic Science and Technology of China); Feng Liang and Jianfei Han (University of Electronic Science and Technology of China)

S02-4 Reconfigurable Holographic Metasurface Antenna with 5 μm Thin Liquid Crystal Layer

14:15-14:30 Huibin Ouyang, Feng Liang and Bing-Zhong Wang (University of Electronic Science and Technology of China)

S02-5 Optically Transparent Dual-Polarized Transmissive Magnitude-Tunable Frequency Selective Surface Based on Liquid Crystal

14:30-14:45 Wu-Guang Zhao and Fan Wu (Southeast University)

S02-6 Liquid Crystal-Based Optically Transparent Dual-Polarized Reconfigurable Reflectarray for Beam-Scanning Applications

14:45-15:00 Wu-Guang Zhao and Wei Deng (Southeast University); Jingxue Wang (Hohai University); Fan Wu (Southeast University)

S02-7	A High-Gain Millimeter-Wave Waveguide Horn Phased Array Antenna Based on HTCC Technology
15:00-15:15	Wenjin Xu, Yuxing Fan, Lei Wang and Juan Liu (Beijing Institute of Remote Sensing Equipment)
S02-8	A Wideband High-Gain Stacked Dielectric Resonator Antenna Array for Millimeter-Wave Communications
15:15-15:30	Hao Feng, Zhijiao Chen and ZiWei Li (Beijing University of Posts and Telecommunications)

13:30 - 15:30, Thu, July 24, 2025

Session: S03

Microwaves, Millimeter Wave and Terahertz Liquid Crystals:

Preparation, Characterization and Applications

Room: Room 4

Organizers & Yizhe Zhao (Institute of Optics and Electronics)

Chairs: Anyong Qing (Southwest Jiaotong University)

S03-1 Development of Compact P-band MW-level Metamaterial Klystron (Invited)

13:30-14:00 Zhaoyun Duan (University of Electronic Science and Technology of China)

S03-2 World's First Radar Experiment in a 7500m Deep Well

14:00-14:15 Yang Huanyu Yang, Huanyu (University of Electronic Science and Technology of China)

S03-3 Push-Pull Drive Topology for Radar Transmitter Power Supply

14:15-14:30 Haohuai Xiong (University of Electronic Science and Technology of China)

S03-4 Electromagnetic Interference Illusions in Partially Covered Time-Domain Modulated Metasurfaces

14:30-14:45 Sheng Wang, Tong Li and Xinyi Nie (Southwest Jiaotong University); Yang Meng (University of Electronic Science and Technology of China); Chuan Lin (Southwest Jiaotong University); Chaoqun Ma (Inner Mongolia University of Technology); Yizhe Zhao (Institute of Optics and Electronics); Anyong Qing (Southwest Jiaotong University)

S03-5 An Ultra-Wideband Frequency Selective Resorber with Low Insertion Loss

14:45-15:00 Tong Li, Sheng Wang and Xinyi Nie (Southwest Jiaotong University); Yang Meng (University of Electronic Science and Technology of China); Chaoqun Ma (Inner Mongolia University of Technology); Chuan Lin (Southwest Jiaotong University); Yizhe Zhao (Institute of Optics and Electronics); Anyong Qing (Southwest Jiaotong University)

S03-6 Analysis of the Nominal Uncertainty of the Transmitted Signal of an RF Transmit Link

15:00-15:15 Shaoqiang Zhang (University of Electronic Science and Technology of China)

S03-7 The Enhancements of Mid-Infrared Photodetecting Properties of the Graphene Nanoribbon Array Device

15:15-15:30 Yucheng Wang, Peiquan Yu, Ruotong Chen and Xiaoping Huang (University of Electronic Science and Technology of China)

15:50 - 17:50, Thu, July 24, 2025

Session: WiM

Women in Microwave

Room: Room 1

Organizers & Zi He (Nanjing University of Science and Technology)

Chairs: Wanchen Yang (Nanjing University of Aeronautics and Astronautics)
Ye Han (Nanjing University of Posts and Telecommunications)

WiM-1 **Electromagnetic Compatibility Challenges and Optimization Strategies for Neuromorphic Chips (Invited)**

15:50-16:20 Yan Li (China Jiliang University)

WiM-2 **Multi-Scale Electromagnetic Simulation, Intelligent Generation, and Adaptive Recognition for Complex Land/Sea Scenarios (Invited)**

16:20-16:50 Zi He (Nanjing University of Science and Technology)

WiM-3 **Panel Discussion**

16:50-17:50

15:50 - 17:50, Thu, July 24, 2025

Session: S04

Programmable Metasurfaces and Applications

Room: Room 2

Organizers & Xin Ge Zhang (Southeast University)

Chairs: Han Wei Tian (Southeast University)

S04-1 Dispersion-Enabled Ultrabroad and Aberration-Free Meta-Devices (Invited)

15:50-16:20 Tong Cai (Air Force Engineering University)

S04-2 Leaky Fourier Surface Enabled Customized Beamforming

16:20-16:35 Chunsheng Guan (Academy of Air and Missile Defense & Air Force Engineering University)

S04-3 Intelligent Metasurface Based Human Sensing System in Programmable EM Environment

16:35-16:50 Hanting Zhao and Menglin Wei (China Mobile Research Institute); Hengxin Ruan (Peking University); Jing Dong and Jing Jin (CMRI); Qixing Wang (CMCC)

S04-4 Sunlight-Driven and Light-Controlled Programmable Metasurface for Harmonic Modulation and Hybrid Wireless Communications

16:50-17:05 Han Wei Tian and Wei-Xiang Jiang (Southeast University)

S04-5 Dual-Function Programmable Antenna Integrating Radiation and in-Band Co-Polarized Scattering

17:05-17:20 Xin Li (National University of Defense Technology)

S04-6 Transmissive Programmable Metasurface Radome for 6G Base Station

17:20-17:35 Menglin Wei, Xin Su and Hanting Zhao (China Mobile Research Institute); Liang Ma (China Mobile Research Institute); Sen Wang (China Mobile Research Institute); Jing Jin (CMRI); Qixing Wang (CMCC); Yifei Yuan (China Mobile Research Institute)

S04-7 A Programmable Metasurface Design for Integrated Control of Radiation and Reflection Waves

17:35-17:50 Chao Song, Han Wei Tian and Wei-Xiang Jiang (Southeast University)

15:50 - 17:50, Thu, July 24, 2025

Session: S05

Device & System

Room: Room 3

Chairs: Yafei Wu (University of Electronic Science and Technology of China)
Hongbin Wang (University of Electronic Science and Technology of China)
Xu Yan (City University of Hong Kong)

S05-1 Additively Manufactured Microwave Components and Antennas for Sustainable Electronics (Invited)

15:50-16:20 Yang Yang (University of Technology Sydney)

S05-2 Design and Implementation of a Temperature Measurement System Based on Low-Noise MEMS Oscillator and FPGA-Based TDC

16:20-16:35 Jingtao Yu, Zihan Yu, Changrong Liu, Baoqing Nie and Dacheng Xu (Soochow University)

S05-3 Research Progress of Millimeter-Wave Phased Array in SiGe Process

16:35-16:50 Peigen Zhou, Siyuan Tang, Zongxiang Wang, Jixin Chen, Zhe Chen and Wei Hong (Southeast University)

S05-4 Attention-Enhanced Joint Pilot Design and Channel Estimation for MIMO-OFDM Systems

16:50-17:05 Heng Fu, Weijian Si and Ruizhi Liu (Harbin Engineering University)

S05-5 Machine Learning-Assisted Synthesis of Millimeter-Wave Circularly Polarized Arrays with 0°/180° Phase Control for Low Sidelobes

17:05-17:20 Jing Wang and Li Xing Zhao (University of Electronic Science and Technology of China); Yu Shao (China National Accreditation Service for Conformity Assessment); Zong Rui He (University of Electronic Science and Technology of China)

S05-6 A Gain-Enhanced THz Omnidirectional Antenna-in-Package Based on TGV Technology for Chip-to-Chip Wireless Interconnect Applications

17:20-17:35 Gang Zhuang (University of Electronic Science and Technology of China)

S05-7	Multi-Material Additively Manufactured Wideband Millimeter-Wave Butler Matrix
17:35-17:50	Zhiwei Yin and Yang Yang (University of Technology Sydney); He Zhu (CSIRO)

15:50 - 17:50, Thu, July 24, 2025

Session: S06

Material & Process for WPT

Room: Room 4

Chairs: Yang Li (Jiangnan University)
Jingyuan Zhang (City University of Hong Kong)

S06-1 Low-Cost Manufacturing Process for Millimeter-Wave Radar Waveguide Antennas (Invited)

15:50-16:20 Zhewei He (BOXUN & Suzhou BOXUN Communication Technology Ltd); Yanbin Du (Partner)

S06-2 Ray Tracing and Measurement Study of Multipath Propagation for RSSI-Based Localization

16:20-16:35 Changrong Liu (Soochow University); Weiyong Liu (Suzhou Bohai Microsystem Company Limited); Yong Huang (East China Institute of Photo-Electron IC)

S06-3 Dual-Modal Flexible Wireless Sensor for Real-Time Wound Flatness and Temperature Monitoring in Postoperative Care

16:35-16:50 Jingwen Zhang and Yongqing Wang (China University of Geosciences Beijing); Sicheng Chen (Nanyang Technological University); Qisheng Zhang (China University of Geosciences(Beijing))

S06-4 Rapid Layout Optimization of Active RF Circuit with Deep Learning: from Rectifiers to Power Amplifiers

16:50-17:05 Haodong Li and Ming Zhang (Northwestern Polytechnical University); Yuxuan Deng (City University of Hong Kong); Hao Zhang (Northwestern Polytechnical University); Jingchen Wang and Eng Gee Lim (Xi'an Jiaotong-Liverpool University)

S06-5 Design of a Seventh-Order Millimeter-Wave SIW Filter Based on MEMS Process

17:05-17:20 Zeyuan Yu, Haodong Li, He Guan and Cetian Wang (Northwestern Polytechnical University); Lixiang Ding and Xiaopeng Zhang (North-China Integrated Circuit); Hao Zhang (Northwestern Polytechnical University)

S06-6	Electric Field Suppression Strategy for RCS Reduction of Curved Target at TM Polarization
17:20-17:35	Zishan Chen, Zhaowang Cao, Yunfei Xia, Shengke Jiang, Ling Miao and Jianjun Jiang (Huazhong University of Science and Technology)
S06-7	AI-Driven Modeling of GaN HEMT and SBD for Wireless Power Transfer Systems
17:35-17:50	Junchao Yao, Yang Li, Bo Shao, Ren-Pin Huang, Aman Sun, Xiao Wang and Jinping Ao (Jiangnan University)

08:00 - 10:00, Fri, July 25, 2025

Session: S21

WPT & Communication

Room: Room 1

Chairs: Jun-Hui Ou (South China University of Technology)
Hao Zhang (Northwestern Polytechnical University)

S21-1 A Stacked Patch Antenna for SWIPT System (Invited)

08:00-08:30 Jun-Hui Ou and Xiu Yin Zhang (South China University of Technology)

S21-2 A Pure Analog Phase Conjugation Circuit for Efficient Wireless Power Transfer Application (Invited)

08:30-09:00 Yi Zhang, Chang Jun Lai, Yi-Zhao Lu and Zhi-Xia Du (Guangdong University of Technology)

S21-3 Design of Circular Polarization Radiation Pattern Reconfigurable Rectenna for IoT Devices

09:00-09:15 Miao Qi, Matilda Isaac, Bintao Hu, Jingchen Wang and Rui Pei (Xi'an Jiaotong-Liverpool University); Wenzhang Zhang (Xi'an Jiaotong-Liverpool University, China & University of Liverpool)

S21-4 Hybrid Circular-Polygon Coil Arrays for Robust Wireless Power Transfer in Dynamic Misalignment

09:15-09:30 Xingyu Zhang, Jingchen Wang and Eng Gee Lim (Xi'an Jiaotong-Liverpool University); Zhao Wang (Xi'an Jiaotong Liverpool University & University of Liverpool); Mark Leach and Rui Pei (Xi'an Jiaotong-Liverpool University); Zhenzhen Jiang and Wenzhang Zhang (Xi'an Jiaotong-Liverpool University & University of Liverpool)

S21-5 VO₂-Enabled Frequency-Selective Coding Metasurface for Full-Space Wavefront Manipulation

09:30-09:45 Zhongtao Li, Yuchen Suo, Nan Wang and Fengyuan Yang (Shanghai University)

S21-6 Optimization of an GaN-Based Rectifier Performance Using the Terajet Effect with a Rodome Antenna

09:45-10:00 Zhen Huang (JFS Laboratory)

08:00 - 10:00, Fri, July 25, 2025

Session: S07

Material for Multifunctional RF Device and System

Room: Room 2

Chairs: Bian Wu (Xidian University)

Gang Zhang (Nanjing Normal University)

**S07-1 3D-Printed Millimetre-Wave and Sub-Terahertz Filters and Antennas
(Invited)**

08:00-08:30 Yi Wang (University of Birmingham)

S07-2 Enhancing Filter Design Through Additive Manufacturing

08:30-08:45 Cristiano Tomassoni (University of Perugia); Maurizio Bozzi (University of Pavia)

**S07-3 Design of Planar Reflectarray Antenna with Ultra-Wideband Stealth
Property**

08:45-09:00 Yi Li, Yutong Zhao and Bian Wu (Xidian University)

**S07-4 Design of Optically Transparent Film with High Electromagnetic Shielding
Effectiveness**

09:00-09:15 Jiaxin Bao (Shenyang Aircraft Design & Research Institute); Chenxi Fan
(Nanjing University); Xiaodan Zhong and Hao Cui (Shenyang Aircraft Design
& Research Institute); Junming Zhao (Nanjing University)

**S07-5 Dual-Circularly Polarized Transmitarray Antenna with Differentiated Gain
Levels**

09:15-09:30 Lin-Xiao Wu, Mai Yan and Haiyong Zheng (Ocean University of China); Ke Chen
(Nanjing University)

**S07-6 3-D Printable Bandpass Filter Using Mixed Hemispherical / Quarter-
Spherical Resonators**

09:30-09:45 Ru Fang, Shuai Feng, Caiyi Tang, Yanqun Liu and Gang Zhang (Nanjing Normal
University)

**S07-7 Design of Dual-Band Bandpass Filter Based on Dual-Mode Waveguide
Loaded Air Slots Resonator**

09:45-10:00 Kun Wang, Minjie Xu, Jiajin Lu, Pei Ding, Chao Jiang and Jiayu Rao (Jiangsu
University of Technology)

08:00 - 10:00, Fri, July 25, 2025

Session: S08

Multi-Functional Antenna

Room: Room 3

Chairs: Ningning Yan (Tianjin University)
Ting Shi (Southwest Jiaotong University)

S08-1 Investigation in Magnetic Dipole for Miniaturized Antenna Performance Improvement

8:00-8:15 Ting Shi (Southwest Jiaotong University)

S08-2 A High Gain Polarization and Pattern Reconfigurable Antenna

8:15-8:30 Chuyue Chen, Long Zhang and Yejun He (Shenzhen University)

S08-3 Second-Order Dual-Band Miniaturized Bandpass Frequency Selective Surface

8:30-8:45 Xiaotong Zhang; Ningning Yan, Yu Luo and Kaixue Ma (Tianjin University)

S08-4 Mutual Coupling Reduction Between Closely-Placed Patches Based on Polarization Conversion and Weak-Field Generation

8:45-9:00 Ting Shi and Wei Lei (Southwest Jiaotong University)

S08-5 A Nested Dual-Port Single-Band Co-Polarization Antenna Based on Half-Mode Substrate Integrated Waveguide

9:00-9:15 Zhuo-Ya Li, Junbing Duan and Cheng Liao (Southwest Jiaotong University)

S08-6 Decoupled, Omnidirectional, and Broadband NFRP Dipole Antenna Pair for Indoor Wireless Terminals

9:15-9:30 Xingxing Li, Yunlu Duan, Da Yi and Ming-Chun Tang (Chongqing University);
Xing-Chang Wei and Er-Ping Li (Zhejiang University)

S08-7 Radiation Characteristic Prediction by Equivalent Huygens' Source Method

9:30-9:45 Mengzhen Wang, Ruizhi Liu and Weijian Si (Harbin Engineering University); Ke Wu (University of Montreal)

08:00 - 10:00, Fri, July 25, 2025

Session: S09

Radar Sensing & Imaging

Room: Room 4

Chairs: Naike Du (Beijing Institute of Technology)
Qi Wu (Southeast University)

S09-1 Design and Implementation of Vehicle Door Opening anti-Collision Module Based on Millimeter Wave Radar

8:00-8:15 Yong Guo and Yan Zheng (FAW-Volkswagen Automotive Co., Ltd.)

S09-2 A Multimode-OAM Imaging with Gaussian Filters for 2D Dielectric Targets with Arbitrary Shapes and Its Symmetrical Investigation

8:15-8:30 Yuefei Hu, Jun Hu, Huangyan Li and Yao Chen (Nanjing University of Science and Technology)

S09-3 Robust Adaptive Beamforming Based on Physical Subspace Partitioning for Through-Wall Radar Imaging

8:30-8:45 Yuchao Guo, Naike Du, Guangzhong Zhang, Jinyang Liu and Xiuzhu Ye (Beijing Institute of Technology); Xiao Fang (Beihang University)

S09-4 Design and Implementation of an FPGA-Based Real-Time Motion Target Detection System for Through-Wall Radar

8:45-9:00 Guangzhong Zhang, Naike Du, Yuchao Guo, Jinyang Liu and Xiuzhu Ye (Beijing Institute of Technology); Xiao Fang (Beihang University)

S09-5 A Generalized Surrogate Model of OAM Antennas for Varied Lens Sets and Loading Strategies

9:00-9:15 Yao Chen, Jun Hu, Huangyan Li and Yuefei Hu (Nanjing University of Science and Technology)

S09-6 Machine Learning-Driven Synthesis of Anisotropic Antenna Arrays for Directional Beamforming Optimization

9:15-9:30 Wenzong Tao and Qi Wu (Southeast University); Haiming Wang (Southeast University, China & Purple Mountain Laboratories); Qian Zhang (ZTE Corporation)

S09-7	A Low-Profile Air Material Based Semi-Cylindrical Metamaterial Millimeter-Wave Luneburg Lens Antenna Using Transformation-Optics
9:30-9:45	Silin He (Xi'an Jiaotong-Liverpool University); Zhao Wang (Xi'an Jiaotong Liverpool University & University of Liverpool); Pengjian Gong (Sichuan University)
S09-8	Design of a Dual-Band Microstrip Antenna Array with Reduced Radar Cross Section
9:45-10:00	Fan Ye (National University of Defense Technology); Yangyinu Zhang and Yuejun Zheng (National University of Defense Technology)

13:30 - 15:30, Fri, July 25, 2025

IMWS-AMP 10th Anniversary Celebration Session II

Room: Room 1

Chairs: Siping Gao (Nanjing University of Aeronautics and Astronautics)
Maurizio Bozzi (University of Pavia)

1 Current and Future Trends in Technologies and Materials for Microwave Communication and Sensing (Invited)

13:30-14:00 Maurizio Bozzi (University of Pavia)

2 Millimeter-Wave 3D-Printed High-Gain Wideband Antenna Arrays (Invited)

14:00-14:30 Yujian Li (Beijing Jiaotong University)

3 A High-Efficiency Planar Array Antenna with Large Tilt Angle and Low Sidelobes (Invited)

14:30-15:00 Ming-Chun Tang (Chongqing University)

4 Ultra-Wideband Phased Array Antenna with Low Profile and High Efficiency (Invited)

15:00-15:30 Yujian Cheng (University of Electronic Science and Technology of China)

13:30 - 15:30, Fri, July 25, 2025

Session: WS2-1

**Recent Progress on Light Functional Materials-Based Structures
and Devices for Sensor and Wireless Applications (Part I)**

Room: Room 2

Organizers & Yuanyan Su (Nanjing University of Aeronautics and Astronautics)

Chairs: Zhechen Zhang (Fuzhou University)

Lina Ma (Nanjing University of Aeronautics and Astronautics)

WS2-1-1 Investigation of polarization-insensitive near-omnidirectional microwave absorption with metamaterials (Invited)

13:30 - 14:00 Ting Shi (Southwest Jiaotong University)

WS2-1-2 Optimal Gain of Implanted Huygens Source Antenna and Effect of Encapsulation Material

14:00-14:15 Jiajun Li (École Polytechnique Fédérale de Lausanne); Mingxiang Gao (EPFL & IT'IS Foundation); Zvonimir Sipus (University of Zagreb); Anja K. Skrivervik (EPFL)

WS2-1-3 A Single-Polarized Low-Profile Tightly Coupled Dipole Array with 7:1 Bandwidth

14:15-14:30 Wanghong Zhang and Zhechen Zhang (Fuzhou University)

WS2-1-4 Design and Applications of Advanced Material-Based Microwave and Millimeter-Wave Antennas

14:30-14:45 Lina Ma (Nanjing University of Aeronautics and Astronautics)

WS2-1-5 Optical Depth Control of Wafer-Level Hot Atomic Vapor Cells for Quantum Precision Measurement

14:45-15:00 Ziji Wang (Nanjing University of Aeronautics and Astronautics)

WS2-1-6 A Wedge-Groove Loop-Gap Resonator for Miniature Double-Resonance Atomic Clock

15:00-15:15 Tingtao Zhou and Yuanyan Su (Nanjing University of Aeronautics and Astronautics)

WS2-1-7 Independent Scattering and Radiation Beam Steering for Low-Scattering Phased Arrays

15:15-15:30 Zhechen Zhang (Fuzhou University); Zhizhang (David) Chen (Dalhousie University)

13:30 - 15:30, Fri, July 25, 2025

Session: S10

Emerging Metamaterials Technologies for Antenna and Microwave Device Design

Room: Room 3

Organizers & Guo-Min Yang (Fudan University)

Chairs: Tianxiang Nan (Tsinghua University)

Xiaoyi Wang (Tongji University)

S10-1 Energy-Information Collaborative Metamaterials (Invited)

13:30-14:00 Dexiao Xia, Jiaqi Han, Xiangjing Ma, Nan Zhao, Xing Wang, Long Li (Xidian University)

S10-2 A Dual-Band Arbitrary Dual-Function Switchable Terahertz Metasurface Based on VO₂

14:00-14:15 Mengxuan Zhuang, Huachao OuYang and Guomin Yang (Fudan University)

S10-3 An Ultrawideband Miniaturized Vivaldi Antenna Using Rectangular Slots and Resistors Loading with Spoof Surface Plasmon Polaritons

14:15-14:30 Huachao OuYang (Fudan University); Xiaoyi Wang (College of Electronic and Information Engineering); Mengxuan Zhuang and Guomin Yang (Fudan University)

S10-4 A Wideband Dual-Polarized 1-Bit Reconfigurable Reflect-Array with Independent Control at X-Band

14:30-14:45 Ji Heng, Enhao Wang and Xin Yu Wu (Southeast University); Kunjing Zhong (ZTE Corporation); Zhi Hao Jiang (Southeast University)

S10-5 A Broadband Dual-Polarized Tightly Coupled Transmitarray Antenna

14:45-15:00 Dian Li, Mengzhi Hou, Long Zhang and Yejun He (Shenzhen University); Steven Shichang Gao (Chinese University of Hong Kong)

S10-6 Spatio-Temporal Self-Scanning Frequency Diverse Metasurface

15:00-15:15 Yuzhen Chen (Fudan University); Xiaoyi Wang (Tongji University); Guomin Yang and Ya-Qiu Jin (Fudan University)

S10-7	High-Gain Broadband All-Metal Discretized Gradient Luneburg Lens Design
15:15-15:30	Fanghui Sang, LuoBing Zhao, Manman Kang and Yanghui Wu (Nanjing University of Science and Technology)

13:30 - 15:30, Fri, July 25, 2025

Session: S11

**Innovative Antenna Technologies for Next-Generation
Wireless and Communication Systems**

Room: Room 4

Organizer: Zhichao Sun (University of Technology Sydney)

Chairs: Yang Yang (University of Technology Sydney)
Zhichao Sun (University of Technology Sydney)
Jing-Yu Lin (University of Technology Sydney)

**S11-1 Advancing Miniaturized Optoelectronic Devices via Optical Nanoantennas
and Nanophotonic Cavities (Invited)**

13:30-14:00 Zhaogang Dong (Agency for Science, Technology and Research & Singapore
University of Technology and Design)

**S11-2 Smooth-Transition Coaxial Waveguide Filters: An Inverse Scattering
Approach for Metallic 3D Printing**

14:00-14:15 Ming Wu and Bing Zhang (Sichuan University)

**S11-3 A Miniaturized Glass on-Chip Microstrip Bandpass Filter with Low Insertion
Loss Using TGV Technology**

14:15-14:30 Jiahao Xie and Lin Yan (Xiamen University); Jing-Yu Lin (University of
Technology Sydney)

**S11-4 A Double Layer Miniaturized Circularly Polarized Antenna for Millimeter-
Wave Application**

14:30-14:45 Siyan Li, Shaobin Liu, Songhao Tang and Zhuoyi Liu (Nanjing University of
Aeronautics and Astronautics)

**S11-5 Wide-Band Dual-Circular Polarization Phased-Array Antenna for Ku-Band
Satellite Communication**

14:45-15:00 Qing You (University of Macau); Jia Yi Lei (University of Electronic Science and
Technology of China); Jun Yin, Rui P. Martins and Pui-In Mak (University of
Macau)

S11-6	A Compact 3-D Printed Wideband Circularly Polarized Curl Antenna for Satellite Communications
15:00-15:15	Zhichao Sun (University of Technology Sydney); Xiaojing Lv (University of Technology Sydney); Zhenxi Liang (University of Technology); Yang Yang (University of Technology Sydney)
S11-7	Simple Decoupling Method for Co-Polarized in-Band Full-Duplex Antennas Using a Circular Waveguide
15:15-15:30	Yong Xi Song, Jia Xuan Tang and Chao Jun Ma (Yunnan University); Rongrong Qian (Heriot-Watt University)

15:50 - 17:50, Fri, July 25, 2025

Session: S12

Antennas & Devices

Room: Room 1

Organizer & Chair: Kang Zhou (Eastern Institute of Technology, Ningbo)

S12-1 Multilayered metasurface for wavefront, beam and polarization tuning (Invited)

15:50-16:20 Kuang Zhang (Harbin Institute of Technology)

S12-2 A Compact Dual-Band Dual-Mode Shared-Aperture Antenna for Wearable Devices

16:20-16:35 Yi-Xuan Zeng, Chao Zhang and Zhen-Guo Liu (Southeast University)

S12-3 A Dual-Function and Dual-Band Leaky-Wave Antenna Array for the Microwave and Millimeter-Wave Applications

16:35-16:50 Jianing Zhang and Yunjie Geng (Beijing Jiaotong University)

S12-4 A Compact Tri-Band Flexible CPW-Fed Antenna for IoMT Applications

16:50-17:05 Zijian Dong (Xi'an Jiaotong Liverpool University); Mark Leach (Xi'an Jiaotong-Liverpool University); Jiafeng Zhou (University of Liverpool, United Kingdom (Great Britain)); Zhenzhen Jiang (Xi'an Jiaotong-Liverpool University, China & University of Liverpool)

S12-5 Breaking the Mental Barriers: Non-Conventional Microwave Filter Synthesis

17:05-17:20 Yi Zeng (The Southern University of Science and Technology)

S12-6 Design of Miniaturized Multi-Band Microstrip Filtering Antenna

17:20-17:35 Tianyi Liu, Bian Wu and Tao Su (Xidian University)

S12-7 A Minimized Wideband Dual-Band Filter with Micro-Coaxial Coupling Lines

17:35-17:50 Runzhe Huang (School of Electrical and Automation Engineering, Nanjing Normal University); Jing-Yi Zhang and Junjie Zhang (Nanjing Normal University); Zihan Duanmu (School of Electrical and Automation Engineering, Nanjing Normal University); Chaoyang Zhao and Gang Zhang (Nanjing Normal University)

15:50 - 17:50, Fri, July 25, 2025

Session: WS2-2

**Recent Progress on Light Functional Materials-Based Structures
and Devices for Sensor and Wireless Applications (Part II)**

Room: Room 2

Organizers & Yuanyan Su (Nanjing University of Aeronautics and Astronautics)

Chairs: Zhechen Zhang (Fuzhou University)

Lina Ma (Nanjing University of Aeronautics and Astronautics)

WS2-2-1 Metasurface enhanced wireless transmission (Invited)

15:50-16:20 Fengyuan Yang and Jia Tian (Shanghai University)

**WS2-2-2 Broadband and Unidirectional Beam Scanning Fabry-Perot Antenna Based
on Hybrid PRS (Invited)**

16:20-16:50 Xinyu Zhu (Nanjing University of Information Science & Technology); Xing
Zhao (Nanjing University of Aeronautics and Astronautics)

**WS2-2-3 Recent Progress on Miniature Cavity-Cell Assembly Development for
Compact Double-Resonance Rubidium Clocks**

16:50-17:05 Yuanyan Su (Nanjing University of Aeronautics and Astronautics)

**WS2-2-4 Next-Generation Gap Waveguides: Potential Applications in Millimeter-
Wave and Terahertz**

17:05-17:20 Enlin Wang and Yongrong Shi (Nanjing University of Aeronautics and
Astronautics)

**WS2-2-5 18-40 GHz Low-Profile Tightly Coupled Dipole Array with Improved
Integrated Feeding Technique**

17:20-17:35 Wenxuan Li, Enlin Wang and Yongrong Shi (Nanjing University of Aeronautics
and Astronautics)

**WS2-2-6 Microwave Circuit Analog Absorber at Large-Angle TE-Polarized Wave
Incidence**

17:35-17:50 Wenda Li and Ting Shi (Southwest Jiaotong University)

15:50 - 17:50, Fri, July 25, 2025

Session: S13

Material & Process for THz

Room: Room 3

Chairs: Ting Zhang (Commonwealth Scientific and Industrial Research Organisation)
He Zhu (Commonwealth Scientific and Industrial Research Organisation)
Gang Zhang (Nanjing Normal University)

S13-1 Terahertz Solid State Intergrate Circuit and its Application (Invited)

15:50-16:20 Bo Zhang (University of Electronic Science and Technology of China)

S13-2 A Dual-Band Dual-Mode Wearable Antenna with Different Beam Directions for off-Body Communications in Emergency Rescue Scenarios

16:20-16:35 Ziang Xu, Xiang Gao, Kun Guo and Wenfei Tang (Beijing Institute of Technology)

S13-3 Dual-Band Filter with Wide Bandwidth Based on an Inverted-L-Shaped Coaxial Sleeve Structure

16:35-16:50 Mengyu Liu, Zhanzhi Liu, Yingying Ban, Yanqun Liu and Gang Zhang (Nanjing Normal University)

S13-4 High-Tc Superconducting Josephson Detectors Based on a Sub-Terahertz Leaky-Wave Antenna

16:50-17:05 He Zhu (CSIRO)

S13-5 Novel via-Free Dual-Ground Metal Integrated Waveguide Technology and Its Application on Mixed Coupled Bandpass Filter Design

17:05-17:20 Ming Yin; Yi Wu; Kaixue Ma; Shixiong Liang and Songhua Lin (Tianjin University)

S13-6 A Spherically Conformal Transmit-Array Antenna with High Gain and Steerable Beams

17:20-17:35 Chuanfei Ding, Xiang Gao and Jianping An (Beijing Institute of Technology)

S13-7 Near-Field Antenna Arrays for Electromagnetic Field Manipulation

17:35-17:50 Ruizhi Liu (Harbin Engineering University)

15:50 - 17:50, Fri, July 25, 2025

Session: S14

**Advanced Metasurfaces and Frequency-Selective Structures
for Micro/Millimeter-Wave Applications**

Room: Room 4

Organizer: Zhichao Sun (University of Technology Sydney)

Chairs: Yang Yang (University of Technology Sydney)
Zhichao Sun (University of Technology Sydney)

S14-1 Deep-learning enabled metasurface designs for on-demand and dynamic electromagnetic scattering controls (Invited)

15:50-16:20 Yijun Feng (Nanjing University)

S14-2 A Dual-Polarized 3D Frequency Selective Surface at Large Incident Angles

16:20-16:35 Zhuoyi Liu, Shaobin Liu, Siyan Li and Songhao Tang (Nanjing University of Aeronautics and Astronautics)

S14-3 Design of a Wideband Multifunctional Coding Metasurface Element for Sub-6G Applications

16:35-16:50 Yuchen Liu, Shaobin Liu, Zhuoyi Liu and Songhao Tang (Nanjing University of Aeronautics and Astronautics)

S14-4 A Multifunctional Radome Based on Polarization Conversion Metasurface and Energy Selective Surface

16:50-17:05 Zhuoyi Liu, Songhao Tang, Shaobin Liu and Siyan Li (Nanjing University of Aeronautics and Astronautics)

S14-5 A Novel Dual-Band Polarization Convertor Based on Tightly Coupled Dipole Array and Filter Circuit

17:05-17:20 Zian Chen, Shaobin Liu and Zheng-Yu Huang, (Nanjing University of Aeronautics and Astronautics); Kun Liao (Pingxiang University)

S14-6 Millimeter-Wave Ultra-Wideband Energy Selective Surface for 5G Communications Protection

17:20-17:35 Tianyu Shi, Shaobin Liu, Songhao Tang and Yuchen Liu (Nanjing University of Aeronautics and Astronautics)

S14-7 Chessboard Distribution Transmission-Reflection-Integrated Bidirectional Dual-Beam Metasurface

17:35-17:50 Xiaoxuan Guo and Yang Yang (University of Technology Sydney)

08:00 - 10:00, Sat, July 26, 2025

Session: WS3-1

Millimeter-Wave and Terahertz Photonic-Electronic Converged Technologies (Part I)

Room: Room 1

Organizers & Yang Liu (University of Electronic Science and Technology of China)

Chairs: Mo Li (University of Electronic Science and Technology of China)

Daotong Li (Chongqing University)

Fan Yang (University of Electronic Science and Technology of China)

Hao Jiang (University of Electronic Science and Technology of China)

WS3-1-1 Lithium Niobate Electro-Optic Modulators and Their Antenna Applications (Invited)

08:00-08:30 Junqing Ma, Zihao Wang and Yifei Zhang (Shandong University)

WS3-1-2 High-Q Optical Resonators on Silicon for Broadband Microwave Photonic Applications (Invited)

08:30-09:00 Bin Wang (Beijing Institute of Technology)

WS3-1-3 Highly Coherent and Widely Tunable Optical Frequency Comb Generation Using an Optoelectronic Oscillator with LNOI Cascaded Modulators

09:00-09:15 Renzhen Yan, Jiangyi Tong, Xu Hong, Bin Wang and Weifeng Zhang (Beijing Institute of Technology)

WS3-1-4 On-Chip Ultra-Compact Independently Tunable Dual-Passband Microwave Photonic Filter

09:15-09:30 Xiaolong Zhao (Beijing Institute of Technology); Xu Hong, Bin Wang and Weifeng Zhang (Beijing Institute of Technology)

WS3-1-5 Design of W-Band Broadband Antenna Arrays for Heterogeneous Integration

09:30-09:45 Yuqian Tang, Hao Jiang, Tingxuan Hu and Jian Zhang (University of Electronic Science and Technology of China); Yang Liu (University of Electronic Science and Technology of China); Fan Yang, Feiliang Chen and Mo Li (University of Electronic Science and Technology of China)

WS3-1-6

Terahertz Communications Based on Resonant Tunneling Diode

09:45-10:00

Juan Su, Cuo Wu, Lingfeng Kang, Zejia Deng, Junze Li, Changxing Lin and Wei Tan (Microsystem and Terahertz Research Center, China Academy of Engineering Physics)

08:00 - 10:00, Sat, July 26, 2025

Session: S15

Millimeter Wave and Terahertz Integrated Circuit and System

Room: Room 2

Chairs: Yinian Feng (University of Electronic Science and Technology of China)
Zhichao Sun (University of Technology Sydney)

S15-1 A 28-GHz 3.4-mW LNA Using Current-Reuse Technique in 65-nm CMOS

08:00-08:15 Xinyu Sui, Zheng Wang, Yifu Li and Jian Pang (Shanghai Jiao Tong University)

S15-2 A 220-250 GHz Compact Active Phase Shifter with Low Phase Error

08:15-08:30 Zhengcong Tang (University of Electronic Science and Technology of China);
Yinian Feng (University of Electronic Science and Technology of China & ESE);
Bo Zhang and Zhongqian Niu (University of Electronic Science and Technology of China)

S15-3 Design of 220-250GHz Ultra Wideband Driver Amplifier

08:30-08:45 Jiayu Shao, Cheng Wang and Qike Chen (University of Electronic Science and Technology of China)

S15-4 A 230 GHz Sub-Harmonic Mixer for a 50 Gbps Real-Time Wireless Communication System

08:45-09:00 He Zhu (CSIRO)

S15-5 A Bandpass Filter with Good Out-of-Band Rejection Based on SIW Technology for 5G Communication

09:00-09:15 Jing He (Nanjing University of Science and Technology); Mengze Li (Nanjing University of Science and Technology & School of Microelectronics); Juzheng Han, Xi-ao Li, Yueshi Li and Dazhi Ding (Nanjing University of Science and Technology)

S15-6 Design of Integrated Structure of 240GHz 3dB Quadrature Hybrid Coupler

09:15-09:30 Na Yang (Beijing Institute of Technology, China & Beijing Research Institute of Telemetry); Lili Fang (Beijing Institute of Technology); Xiue Bao (Beijing Institute of Technology & KU Leuven); Ming Sheng Gu (Beijing Research Institute of Telemetry)

08:00 - 10:00, Sat, July 26, 2025

Session: S16

Electromagnetic Stealth and Intelligent Structures

Room: Room 3

Organizers & Kai Zheng (Northwestern Polytechnical University)

Chairs: Xiangkun Kong (Nanjing University of Aeronautics and Astronautics)
Lingling Wang (Jinling Institute of Technology)

**S16-1 Research on Energy-Selective Structure for Electromagnetic Protection
(Invited)**

08:00-08:30 Guoqing Luo (Hangzhou Dianzi University)

**S16-2 A Broadband Absorptive Frequency-Selective Radome Based on Three-
Dimensional Structure**

08:30-08:45 Lingling Wang, Junhao Mei, Dong Han and Qingcehng Zhang (Jinling Institute
of Technology)

S16-3 Wideband Circularly Polarized Filtering Dielectric Resonator Antenna Array

08:45-09:00 Yun Cao and Hai-Feng Zhang (Nanjing University of Posts and
Telecommunications)

**S16-4 A 2.5-D Antenna-Circuit-Antenna Structure-Based Wideband Amplifying
Frequency Selective Rasorber**

09:00-09:15 Yukun Zou and Xiangkun Kong (Nanjing University of Aeronautics and
Astronautics)

**S16-5 Multifunctional Metamaterial for Simultaneous Broadband Electromagnetic
and Acoustic Absorption**

09:15-09:30 Yi Xiao, Ying Chen, Xiangkun Kong, Zhepeng Hou and Jianlai Cheng (Nanjing
University of Aeronautics and Astronautics); Kai Wang (Nanjing University of
Science and Technology)

**S16-6 Design of a Wideband Power Amplifying Absorptive Bandpass Filter with
Multiple Transmission Zeros and Flat Group Delay**

09:30-09:45 Tao Ouyang and Xiangkun Kong (Nanjing University of Aeronautics and
Astronautics)

08:00 - 10:00, Sat, July 26, 2025

Session: S17

3D RF Circuit and System

Room: Room 4

Chair: Haoran Zhu (Anhui University)

S17-1 A 10 W 2-20 GHz Wideband Power Amplifier in 0.15-Um GaN

08:00-08:15 Mingsai Zhu (Ceyear Technology)

S17-2 X-Band Multilayer Sector-Shaped Low-Pass Filter Based on LTCC Technology

08:15-08:30 Wenchao Sun (Ceyear Technologies Co. Ltd)

S17-3 A High-Frequency Inductance Model of Through Silicon Vias Based on Partial Inductance Method

08:30-08:45 Junyi Hu and Haoran Zhu (Anhui University)

S17-4 Design of a D-Band Thrice-Harmonic Mixer Based on GaAs pHEMT Technology

08:45-09:00 Zhongpu Li and Junyuan Han (Ceyear Technologies Co. Ltd)

S17-5 MRC-WPT System with Simultaneously Load-Independent Power and Efficiency Through Improved Impedance Compression Matching

09:00-09:15 Xiaozhou Zhou, Shiyang Luo, Wenlong Zhou, Hao Zhang and He Guan (Northwestern Polytechnical University)

S17-6 Design of a High-Power W-Band Fundamental Mixer Based on GaN Schottky Diodes

09:15-09:30 Xintong Xue, Zhanfeng Li and Wei Li (Taiyuan University of Technology); Binbin Ma (Tianjin University); Chao Huang (Tianjin University); Haitao Zhang (Taiyuan University of Technology); Shixiong Liang (Tianjin University)

S17-7 Design of SPDT Switching Circuit with Asymmetric Structure Based on 0.25um GaN HEMT Process

09:30-09:45 Yutong Jiang and Xu Zou (Xidian University)

S17-8 Power Amplifier with Detector and Dualband Antenna Design for 5G NR Applications

09:45-10:00 Wen Cheng Lai (National Taiwan University of Science and Technology)

10:20 - 12:20, Sat, July 26, 2025

Session: WS3-2

Millimeter-Wave and Terahertz Photonic-Electronic Converged Technologies (Part II)

Room: Room 1

Organizers & Yang Liu (University of Electronic Science and Technology of China)

Chairs: Mo Li (University of Electronic Science and Technology of China)

Daotong Li (Chongqing University)

Fan Yang (University of Electronic Science and Technology of China)

Hao Jiang (University of Electronic Science and Technology of China)

WS3-2-1 Development in Micro/Nano Air-Channel Devices for High-Frequency and Ultrafast Applications (Invited)

10:20-10:50 Ruihan Huang, Junxiang Yang, Haiquan Zhao, Yuting Zhou, Feiliang Chen, Yang Liu, Jian Zhang and Mo Li (University of Electronic Science and Technology of China)

WS3-2-2 Hybrid Static and Time-Modulated High-Selectivity Nonreciprocal Filter Using Substrate-Integrated Waveguide and Stripline Resonators

10:50-11:05 Qi Jiang (Chongqing University); Daotong Li (Kyoto University); Ying Liu, Jiang Dong and Ning Pan (Chongqing University); Xiquan Huang (Aoling Microwave)

WS3-2-3 An Electronically Tunable Phase Shifter Based on Hybrid Air-Filled Substrate Integrated Waveguide (AFSIW) and Rectangular Waveguide

11:05-11:20 Jiang Dong (Chongqing University); Daotong Li (Kyoto University); Qi Jiang, Ying Liu and Hao Wang (Chongqing University)

WS3-2-4 Ultra-Wideband Multi-Beam Luneburg Lens Antenna for Terahertz Applications

11:20-11:35 Shiyi Yang (Chinese Academy of Sciences); Meng Cao (Beijing Institute of Technology)

WS3-2-5 Comparison Research of Millimeter-Wave/Infrared Co-Aperture Reflector Antenna Systems Based on a Specialized Film

11:35-11:50 Zongze Li, Xinlong Yang, Chen Yao, Yiming Zhao, Hongda Lu and Yong Liu (Beijing Institute of Technology)

WS3-2-6	Research on Metasurface-Based near-Field Wavefront Manipulation Technology
11:50-12:05	Meijun Qu and Jianxun Su (Communication University of China)
WS3-2-7	Modulating Photonic Dirac Point by Scatterer Deformation, Rotation, and Lattice Distortion
12:05-12:20	Minhan Xu (Nanjing University)

10:20 - 12:20, Sat, July 26, 2025

Session: S18

RF Integration Technology

Room: Room 2

Chairs: Guangbao Shan (Xidian University)
Yanwen Zheng (Xidian University)

S18-1 Design of Lumped Bandpass Filter Based on 3D Heterogeneous Integration Technology

10:20-10:35 Xiao Hu and Jiang Hu (University of Electronic Science and Technology of China)

S18-2 A W-Band Broadband and High Gain Patch Antenna Using Dry Film Micromaching

10:35-10:50 Shang Zhang (Shanghai Jiao Tong University)

S18-3 Design of Miniaturized Wideband TSV Tunable Inductor Based on Magnetic Coupling Effect

10:50-11:05 Xiang Fan; Guangbao Shan; Yanwen Zheng; Ruixin Wang; Wang Fangqian (Xidian University)

S18-4 A Tunable Broadband on-Chip Transformer Based on Magnetic Coupling

11:05-11:20 Wang Fangqian; Guangbao Shan; Yanwen Zheng; Ruixin Wang; Xiang Fan (Xidian University)

S18-5 An Improved 2X-Through de-Embedding Technique Based on 50-Ohm Calibration Standard

11:20-11:35 Yun Chen, Yang Chen, Yuehang Xu and Bo Yan (University of Electronic Science and Technology of China)

S18-6 Design and Optimization of Minimized 3D Integrated Filter Based on Coaxial TSV Array

11:35-11:50 Xiaoxue Huang (Xidian University); Xiangkun Yin (Xidian University & School of Microelectronics); Fengjuan Wang (Xi'an University of Technology); Nairong Liu and Libo Qian (Xidian University)

**S18-7 A Miniaturized Unequal Multi-Line Coupled-Line Microstrip Bandpass Filter
with Widely Tunable Center Frequency**

11:50-12:05 Pengshuai Liu, Yongle Wu, Danyang Wang, Wei Zhao and Weimin Wang
(Beijing University of Posts and Telecommunications)

10:20 - 12:20, Sat, July 26, 2025

Session: S19

Novel Antennas for Advanced Communication and Microelectronics Systems

Room: Room 3

Chairs: Yue Ma (Nanjing University of Science and Technology)
Chen Miao (Nanjing University of Science and Technology)
Ruoyu Zhang (Nanjing University of Science and Technology)
Yanghui Wu (Nanjing University of Science and Technology)

S19-1 Research on a Circularly-Polarized Spiral Antenna with a Simple Dielectric Lens

10:20-10:35 Miao WM Wang, Wang Miao (DFH Satellite Co. Ltd)

S19-2 A Broadband D-Band Cavity-Backed Coupled-Feed Patch Antenna in Wafer-Level Package Based on Heterogeneous Integrations

10:35-10:50 Yin-Shan Huang (Shanghai Jiao Tong University)

S19-3 Stretchable Tapered Periodic Sheet Based on Hexagonal Ring Structure for Edge Scattering Suppression

10:50-11:05 Xingyi Wu, Ting Zheng and Min Chen (AVIC Leihua Electronic Technology Institute)

S19-4 Secure Wireless Communication with Movable Time-Modulated Metasurfaces

11:05-11:20 Jie Ma and Yue Ma (Nanjing University of Science and Technology); Ruiqian Ma and Zhi Lin (National University of Defense Technology); Ruoyu Zhang, Chen Miao and Wen Wu (Nanjing University of Science and Technology)

S19-5 Design of a High-Transparency Flexible Rectangular Microstrip Antenna Based on Characteristic Mode Analysis

11:20-11:35 Chen Fu (Jinling Institute of Technology)

S19-6 Dual-Band Circularly Polarized Transparent Antenna Based on Indium Tin Oxide Material

11:35-11:50 Shuyi Lin, Yanghui Wu, Wenhua Gu and Ye Zhu (Nanjing University of Science and Technology)

S19-7	Optimization of Transparent Antennas Applied to 5G Communication
11:50-12:05	Ye Zhu (Nanjing University of Science and Technology); Wubo Chu (CETC36); Yanghui Wu and Wenhua Gu (Nanjing University of Science and Technology)
S19-8	Scalable Fabrication of Microbumps for Microbump Antenna
12:05-12:20	Junming Ding (Shanghai Jiaotong University); Yue Ping Zhang (Nanyang Technological University)

10:20 - 12:20, Sat, July 26, 2025

Session: S20

Integrated Device & Circuit

Room: Room 4

Chairs: Xiao Fang (Beihang University)
Yongle Wu (Beijing University of Posts and Telecommunications)

S20-1 Research on Multifunctional Dielectric Devices and RF Chips (Invited)

10:20-10:50 Yongle Wu (Beijing University of Posts and Telecommunications)

S20-2 A Broadband Filtering Power Divider Using Interdigital Capacitors and Microstrip Inductors

10:50-11:05 Chonghang Yin (Beijing University of Posts and Telecommunications); Yongle Wu (Beijing University of Posts and Telecommunications); Shuchen Zhen (Beijing University of Posts and Telecommunications); Weimin Wang (Beijing University of Posts and Telecommunications)

S20-3 Modeling and Analysis of Millimeter-Wave Transformer Balun

11:05-11:20 Mumei Zhang (Beihang University & Fuzhou University); Xiao Fang (Beihang University); Yadong Yin (Fuzhou University)

S20-4 Impact of Temperature on Threshold Voltage Drift in AlN/GaN MIS-HEMTs

11:20-11:35 Huilin Li, Jiejie Zhu, Lingjie Qin, Simei Huang and Xiaohua Ma (Xidian University)

S20-5 Simulation Study of AlN/Al_xGa_{1-x}N/GaN Graded Channel High Electron Mobility Transistors for High Linearity and High E-Field Applications

11:35-11:50 Mao teng Lu, Minhan Mi, Pengfei Wang and Xiang Du (Xidian University)

S20-6 Linearity Improvement of GaN HEMT via Asymmetric SFin-HEMT Structure

11:50-12:05 Can Gong, Minhan Mi, Yuwei Zhou, Ting Meng and Tianhao Liu (Xidian University); Chenglin Du, Xiaolong Cai and Sheng Wu (ZTE Corporation)

S20-7 A 23.5-46 GHz Low Power VGLNA with 3 dB NF and 24 dB Gain Tuning Range in 28 nm Bulk CMOS

12:05-12:20 Haitao Lin, Yanchen Lin, Li Gao and Xiu Yin Zhang (South China University of Technology)

13:30 - 15:30, Sat, July 26, 2025

Session: WS4

Workshop for THz Measurement

Room: Room 1

Organizer & Chair: Zhijiao Chen (Beijing University of Posts and Telecommunications)

WS4-1 On Wafer-Probe-Based Antenna Measurements (Invited)

13:30-14:00 Yueping Zhang (Nanyang Technological University)

WS4-2 Key Technologies and Applications of Solid-State Terahertz Transceiver Front-End (Invited)

14:00-14:30 Bo Zhang (University of Electronic Science and Technology of China)

WS4-3 Terahertz CT Imaging Technology (Invited)

14:30-15:00 Weidong Hu (Beijing Institute of Technology)

WS4-4 High-Efficiency Terahertz Chip Testing Solutions (Invited)

15:00-15:30 Jianqin Deng (Ceyear Technologies Co. Ltd)

13:30 - 15:30, Sat, July 26, 2025

Session: S22

Magnetic Material-Based Devices

Room: Room 2

Chairs: Han Cui (Tianjin University)
Siping Gao (Nanjing University of Aeronautics and Astronautics)
Zhenxin He (Beijing Aerospace Micro-Electronics Technology Co., Ltd.)

S22-1 LLG-Based Nonlinear Modeling for Magnetic Devices - from Microwave to Power Applications (Invited)

13:30-14:00 Han Cui (Tianjin University)

S22-2 A Low-Loss and Frequency-Tunable Power Limiter Using YIG Thin Film

14:00-14:15 Zequn Zeng (National University of Singapore); Si-Ping Gao (Nanjing University of Aeronautics and Astronautics); Yongxin Guo (City University of Hong Kong)

S22-3 An Ultra-High Frequency Waveguide Circulator for Millimeter Waves

14:15-14:30 Yifan Yang (Xi'an Jiaotong University)

S22-4 Multi-Function Integration of Bandpass Filter, Isolator and Frequency-Selective-Limiter Through MSSW in Planar Ferrite

14:30-14:45 Yi Zhang, Chao Huang, Yibing Yao and Zelin Zheng (Sichuan University); Chaoxia Zhao (Xihua University); Kama Huang (Sichuan University)

S22-5 Design of Millimeter-Wave Y-Junction Circulator Based on Gap Waveguide Technology

14:45-15:00 Yifan Yang (Xi'an Jiaotong University); Yun Li (China); Ziyao Wang and Ying Zhu (Xi'an Jiaotong University); Zhenxin He (Beijing Aerospace Micro-Electronics Technology Co, Ltd); Qian Yang (Xi'an Jiaotong University)

S22-6 A Compact Substrate Integrated Waveguide Diplexer Using Fundamental Dual-Mode Resonances

15:00-15:15 Ziheng Cao (The Hong Kong Polytechnic University & Eastern Institute of Technology, Ningbo); Kang Zhou (Eastern Institute of Technology, Ningbo)

S22-7 An InP DHBT DC-90 GHz High-Isolation Common-Emitter Differential Amplifier

15:15-15:30 Fan Zhao (Ceyear Technologies Limited Company)

13:30 - 15:30, Sat, July 26, 2025

Session: S23

Solid-State Circuit & System

Room: Room 3

Chairs: Jincai Qiao (Chongqing Institute of Microelectronics Industry Technology, UESTC)
Zuqiang Ou (University of Electronic Science and Technology of China)

S23-1 W-Band MMIC Frequency Tripler Based on Carbon Nanotube Diode

13:30-13:45 Haimo Zeng (Peking University); Yanwen Wu and Hongrong Qiu (Xiangtan University); Murong Zhuo (Beijing University of Posts and Telecommunications); Xuelei Liang and Defu Wang (Peking University)

S23-2 K-Band SPST/SPDT RF Switch MMIC in 250 nm GaN HEMT Technology with Inductive Resonator

13:45-14:00 Xu Zou (Xidian University)

S23-3 A Waveguide Directional Coupler with Interleaved Coupling Holes

14:00-14:15 Long Hao (Chongqing University of Posts and Telecommunications); Bo Zhang (University of Electronic Science and Technology of China); Zhongqian Niu (University of Electronic Science and Technology of China & School of Electronic Science and Engineering); Daotong Li (Kyoto University); Ying Liu (Chongqing University)

S23-4 Design and Optimization of Metallic Cavity Packaging for Millimeter-Wave RF Chips

14:15-14:30 Zuqiang Ou and Yunlong Zhong (University of Electronic Science and Technology of China); Jincai Qiao (Chongqing Institute of Microelectronics Industry Technology, UESTC); Zhongqian Niu (University of Electronic Science and Technology of China & School of Electronic Science and Engineering); Hui Peng (Kashi University)

S23-5	A 0.01-18 GHz Ultra Broadband LNA with Hybrid Output and Feedback Network
14:30-14:45	Jianeng Wang and Jianrui Chen (University of Electronic Science and Technology of China); Jie Liu and Yuxuan Zhu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
S23-6	A Ku-Band LNA for Satellite Communication in 0.3-μm GaAs Process
14:45-15:00	Ronglin Chen (University of Electronic Science and Technology of China); Jie Liu and Yuxuan Zhu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang, Xinyan Li and Shu Ma (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
S23-7	A 14-GHz Small Cell PA MMIC in 0.3-μm GaAs for Ground Terminal of Satellite Communication
15:00-15:15	Yanshen Huang and Yijie Zhang (University of Electronic Science and Technology of China); Yuxuan Zhu and Jie Liu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang and Ziao Wang (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
S23-8	Semi-Lumped Absorptive Millimeter-Wave Bandpass Filter Based on GaAs IPD Technology
15:15-15:30	Yifan Wang, Jiang Hu and Daxu Zhang (University of Electronic Science and Technology of China)

13:30 - 15:30, Sat, July 26, 2025

Session: S24

High-Performance RF and THz Circuit and System

Room: Room 4

Organizers & Zhou Shu (National University of Singapore)

Chairs: Yuefeng Hou (Tianjin University)

S24-1 Multi-Tuning Reconfigurable Metasurface Unit for Polarization Manipulation

13:30-13:45 Lu Peng and Yan Ma (China Academy of Space Technology)

S24-2 A Cross-Symmetrical Recyclable Folded Cascode Amplifier with Enhanced CMRR and Gain for Vehicle-Mounted Radar Application

13:45-14:00 Jinhang Zhang, Yongqing Wang, Tianjun Sun and Xinyan Hu (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences(Beijing))

S24-3 A Low Quiescent Current, High Transient Response Low-Dropout Regulator for Vehicle-Mounted LiDAR Applications

14:00-14:15 Tianjun Sun, Yongqing Wang, Jinhang Zhang and Xinyan Hu (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences(Beijing))

S24-4 A Low-Voltage Low-Power and High-CMRR Amplifier for Neural Signal Acquisition

14:15-14:30 Xinyan Hu, Yongqing Wang, Jinhang Zhang and Tianjun Sun (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences(Beijing))

S24-5 Reinforcement Learning-Based Automated Optimal Design of Power Amplifiers

14:30-14:45 Qin Dong (National University of Singapore)

S24-6 Deep Neural Network Assisted Rapid Design for Wideband Multi-Stage Millimeter-Wave Power Amplifiers with Transformer Matching

14:45-15:00 Zuojun Wang (City University of Hong Kong)

S24-7 An Ultra-Low Voltage Rail-to-Rail Bulk-Driven Amplifier for Drone-Mounted Radar Application

15:00-15:15 Hongjie Zheng, Yongqing Wang, Shengyan Zhang and Tianjun Sun (China University of Geosciences Beijing); Qisheng Zhang (China University of Geosciences(Beijing))

15:50 - 17:50, Sat, July 26, 2025

Session: S25

Microwave/mmW/THz Imaging

Room: Room 1

Chairs: Mou Wang (University of Electronic Science and Technology of China)
Shuqin Dong (City University of Hong Kong)

S25-1 3D Printed Fresnel Lens for Real-Time Imaging Using Terahertz Camera

15:50-16:05 Jiexin Lai and Xiaojing Lv (University of Technology Sydney); Zhichao Sun (University of Technology Sydney); Yang Yang (University of Technology Sydney)

S25-2 Modified ELC-IDE Microwave Planar Sensor for Characterization of Solid and Liquid Materials

16:05-16:20 Ghulam Mohayy Ud Din (Beijing Institute of Technology); Xiue Bao (Beijing Institute of Technology & KU Leuven); Kaiyue Liu, Lili Fang, Liming Si and Houjun Sun (Beijing Institute of Technology)

S25-3 Semi-Supervised Concealed Object Detection via Mixed Pseudo Labels

16:20-16:35 Haoyu Chen and Chen Wang (Suzhou University of Science and Technology)

S25-4 Interference Mitigation for FMCW Radar Based on Deep Unfolding Feature Learning

16:35-16:50 Yinghao Cheng, Shunjun Wei, Hao Zhang, Mou Wang, Jun Shi, Chenglin Song and Wang Zi (University of Electronic Science and Technology of China)

S25-5 SparseTVNet: Deep Learning for FMCW Radar Interference Mitigation

16:50-17:05 Shuyun Cheng, Hao Zhang, Yinghao Cheng, Shunjun Wei, Mou Wang, Jun Shi, Xiaolin Zhang, Chenglin Song and Wang Zi (University of Electronic Science and Technology of China)

S25-6 UnAFA-Net: Unsupervised Autofocusing AMP Network for Tomographic SAR Imaging

17:05-17:20 Jiangbo Hu (University of Electronic Science and Technology of China)

S25-7 A Velocity Ambiguity Mitigation Method for TDM-MIMO Radar

17:20-17:35 Siyuan Zhao (National University of Singapore); Yong-xin Guo (City University of Hong Kong)

S25-8 Arrhythmia Classification Based on Distribution Encoding Network with Biomedical Radar

17:35-17:50 Jie Cao and Li Wen (Shanghai Jiao Tong University); Shuqin Dong (City University of Hong Kong); Min Tang, Yijing Guo and Chengxing Shen (Shanghai Sixth People's Hospital); Changzhan Gu (Shanghai Jiao Tong University)

15:50 - 17:50, Sat, July 26, 2025

Session: S26

Meta & RIS

Room: Room 2

Chairs: Wenhua Gu (Nanjing University of Science and Technology)
Yanghui Wu (Nanjing University of Science and Technology)

S26-1 Design, fabrication and application of optically-transparent electromagnetic metasurface (Invited)

15:50-16:20 Wenhua Gu (Nanjing University of Science and Technology)

S26-2 Active Modulation of Terahertz Hybrid Metal-Graphene Electromagnetically Induced Transparency Metasurface

16:20-16:35 Haotian Ling (Aerospace Information University); Xinjie Wang and Zhaolin Li (Shandong University); Pengfei Ma (Aerospace Information University); Yanpeng Shi and Xijian Zhang (Shandong University); Xudong Zou (Aerospace Information University); Yifei Zhang (Shandong University)

S26-3 Dual-Polarization Dual-Coding Reconfigurable Intelligent Surface

16:35-16:50 Shengnan Shi and Yifei Zhang (Shandong University)

S26-4 The Multi-Metal Layer Metasurface 3D Printed in a Single Substrate for Millimeter-Wave Beam-Shaping

16:50-17:05 Mengze Li (Nanjing University of Science and Technology & School of Microelectronics); Yang Yang (University of Technology Sydney); Wei Li (Nanjing University of Science and Technology); Jiaqi Cai and Li Deng (Beijing University of Posts and Telecommunications); Dazhi Ding (Nanjing University of Science and Technology)

S26-5 Inverse Design Method of Extended Depth of Focal Metalens Based on Lightweight Network

17:05-17:20 Quansheng Zhang, Di Guo, Changsheng Shen, Zhaofu Chen, Hehong Fan and Ningfeng Bai (Southeast University)

S26-6 An Ultrawideband Phase Reconfigurable Metasurface Element Based on Frequency-Shifting Method

17:20-17:35 Jiawei Liao (Air Force Engineering University)

S26-7	Design of Filtering RIS with Out-of-Band Electromagnetic Transparency
17:35-17:50	Qunqiang Hu (South China University of Technology, China & School of Electronic and Information Engineering); Huiping Yang (South China Normal University); Jia Zhao and Xiuyin Zhang (South China University of Technology)

15:50 - 17:50, Sat, July 26, 2025

Session: S27

Antennas and Algorithms for Wireless Power Transmission and Harvesting

Room: Room 3

Chairs: Zengdi Bao (Beijing Institute of Technology)
Xun Li (Xidian University)
Han Wang (City University of Hong Kong)

S27-1 Design of a Compact Dual-Port Antenna with High Isolation for Airborne Application

15:50-16:05 Junchen Lai (Chengdu Aircraft Industry (Group) Company)

S27-2 Efficient Spherical near-Field Measurements for Metasurface Antennas with Complex Radiation Patterns

16:05-16:20 Di Zhu (Ceyear Technologies Co. Ltd, China & Electronic Measuring Instrument Technology Innovation Center of Shandong Province); Miao Yu, Dahai Hu, Rui Zhao, Qinggong Chang, Jinbang Wang, Yahai Wang and Jigang Dong (Ceyear Technologies Co. Ltd & Electronic Measuring Instrument Technology Innovation Center of Shandong Province)

S27-3 Surface Wave-Based Conformal Endfire Antenna with No Beam Tilt

16:20-16:35 Yinbo Zhao and Zengdi Bao (Beijing Institute of Technology)

S27-4 Efficient Pattern Synthesis Method for Series-Fed Arrays Using Generative Adversarial Networks

16:35-16:50 Yitao Liu and Zengdi Bao (Beijing Institute of Technology)

S27-5 Analysis of Deformed Flexible Antennas Based on Infinitesimal Dipole Model

16:50-17:05 Shuo Chen and Xun Li (Xidian University); Jie Wu (The 54th Research Institute of China Electronics Technology Group Corporation)

S27-6 A Synthesis Method for Compact Multi-Band Antenna Using Novel Pixel Units

17:05-17:20 Ruilin Huang (City University of Hong Kong); Yu Luo (Tianjin University); Han Wang and Yongxin Guo (City University of Hong Kong)

S27-7 H-Plane High Gain Beam-Steerable Antenna Array Using Non-Radiating Resonator

17:20-17:35 Yang ZhiQiang (Xidian University); QuanLong Wen (Xidian, China & Xidian University); Hanyu Xie (Xidian University); Zhang Bo (Xi 'an Kai Rong Electronic Technology Co.); Qiu Yang (Xidian University)

S27-8 A Polarization Reconfiguration Wideband Fabry-Perot Resonator Antenna with Resistor Manipulation

17:35-17:50 Zhendong Ding, Ziwen Dai and Jianyin Cao (Nanjing University of Science and Technology); Hao Wang (Nanjing University of Science & Technology); N Nasimuddin and Michael Chia (Institute for Infocomm Research)

15:50 - 17:50, Sat, July 26, 2025

Session: S28

Terahertz Waveguide Components

Room: Room 4

Chairs: Yang Cao (Hebei University of Technology)
Shuai Sun (Shenzhen Technology University)

S28-1 Coupling-Mediated 1-to-N Port Terahertz on-Chip Demultiplexer

15:50-16:05 Cong Liu (Tianjin University)

S28-2 Suspended-Core Fiber Based Dispersion Compensator for THz Communication Applications

16:05-16:20 Guofu Xu (West Anhui University); Yang Cao (Hebei University of Technology); Maksim Skorobogatiy (Ecole Polytechnique de Montreal); Maosheng Yang, Jinsi Zhang and Qilin Ma (West Anhui University)

S28-3 3D Printed Rectangle Waveguide Components for Terahertz Radiations

16:20-16:35 Yang Cao, Yiyang Chen, Xing Li and Liying Lang (Hebei University of Technology)

S28-4 Thin-Film Derived anti-Resonant Fibers for Low-Loss Terahertz Wave Transmission

16:35-16:50 Shuai Sun, Shuangchen Ruan and Zeren Li (Shenzhen Technology University); Jianquan Yao (Tianda Laser Technology Development Co., Ltd)

S28-5 Inverse Design of Terahertz Topological Hollow-Core Waveguides

16:50-17:05 Yuhang Li and Haisu Li (Beijing Jiaotong University)

S28-6 Low-Loss Terahertz Corrugated Fiber Waveguide with Metal Inner Coating

17:05-17:20 Mingzhe Zu, Yuhang Li, Tianyu Zhou and Haisu Li (Beijing Jiaotong University); Yang Cao (Hebei University of Technology); Guobin Ren (Beijing Jiaotong University)

S28-7 Design of a Dual-Orthogonal TE₁₁ Mode Polarization Duplexer Based on Standard PCB Technology

17:20-17:35 Kai Wang and Chunhong Chen (Nanjing University of Science and Technology); Yi Xiao (Nanjing University of Aeronautics and Astronautics); Junjie Wu (Southeast University)

S28-8	Design and Analysis of a Dual-Notch Ultra-Wideband Antenna Based on Sierpinski Triangular Fractal
17:35-17:50	Ermeng Meng, Haoxiang Ye, Xiang Zhou and Shaojie Zhang (Hangzhou Dianzi University)

Poster Session

PS-A (Friday, July 25, 13:30-15:50)

Poster Area

-
- PS-A.1 ***Light-Speed FIR Filtering via 3-Bit Programmable Metasurfaces***
Rui Xu, Hanjun Zhao, Boyang Qian, Hui Chu and Peng Li (Nanjing University of Science and Technology)
- PS-A.2 ***Manufacturing Process of High-Resistivity Silicon-Based Transmission Line***
Tingting Wang, Shicheng Yang, Ping Wang, Xuzhou Jia, Feng Wang, Haitao Huang and Jiangpeng Wu (China Academy of Space Technology (Xi'an))
- PS-A.3 ***An Efficient Transmission Line Model for Evaluating SAR in Biological Tissue Under RF Exposure***
Xia Wu (Tongji University); Davide Costa (Technical University of Munich, Germany); Liwei Luo (Tongji University)
- PS-A.4 ***Design of Impedance Detection Circuit Based on Six-Port Network***
Jinduo Chen (Nanjing University of Science and Technology); Fangzhou Ouyang (Nanjing University of Science and Technology Nanjing); Chunxia Zhou (Nanjing University of Science and Technology); Wei Kang (Nanjing University of Science and Technology)
- PS-A.5 ***Design of Compact TE₁₀-TE₀₁ Mode Converter with Elliptical Choke Slots***
Yang Guang (Northwest Institute of Nuclear Technology, China & National University of Defense Technology)
- PS-A.6 ***Compact SIW Filtering Crossover Using Microstrip and Embedded Air-Filled SIW Resonators***
Huize Qiao; Zhongmao Li and Mengjie Qin (Institute of Microelectronics of the Chinese Academy of Sciences)
- PS-A.7 ***A 9.6-32 GHz LNA Based Transformer Feedback Techniques in 150-nm GaN-on-SiC Technology***
Cheng-Jie Hu, Hui-Yang Li, Jin-Xu Xu and Xiu Yin Zhang (South China University of Technology)
- PS-A.8 ***Design of Wideband Power Amplifier Based on Transmission Lines Loaded with Shorted Stubs***
Bingxu Bai, Ke Bai and Qingyuan Wu (Nanjing University of Science and Technology); Chunxia Zhou (Nanjing University of Science and Technology)
- PS-A.9 ***High-Efficiency Low Voltage Si-Based GaN HEMT for 5G Terminal Applications***
M.T. Meng, Ting (University of Xidian); Minhan Mi and Yuwei Zhou (Xidian University); Xiangle Jiang (University of Xidian); Can Gong (Xidian University); Chenglin Du, Xiaolong Cai and Sheng Wu (ZTE Corporation)
- PS-A.10 ***Application of the Co-Aperture Plane Method and Harris Hawks Optimization Algorithm in Phaseless Spherical near-Field Measurement***
Ding Yu, Longfei Wang, Haoyi Liu, ShiXu Chen (Xidian University)
- PS-A.11 ***A Broadband Millimeter-Wave Filtering Antenna with Multiple Nulls and Flat Gain Based on ISGW***
Chenghai Xu, Dongya Shen, Yuecheng Wang, Xi Zhao and Zhengyi Ma (Yunnan University)
- PS-A.12 ***Study on the Modulation Effect of Gate Etching Depth on the Electrical Characteristics of AlGaIn/GaN/AlN/GaN Dual-Channel Devices***
Yuanjie Wang, Ling Yang, Chunzhou Shi, Meng Zhang and Bin Hou (Xidian University); Sheng Wu, Haijun Liu and Yu Zhang (ZTE Corporation)

- PS-A.13 **Multilevel Resistive Memory Based on GaN HEMT-Integrated 1T1R Architecture for Neuromorphic Computing Applications**
Wenze Gao (Xidian University)
- PS-A.14 **Terahertz Orbital Angular Momentum Multiplexing Encrypted Holography**
Haoyu Zheng, Zekun Li and Qinghao Li (Qingdao University); Leonid F. Chernogor (Ukraine); Yu Zheng and Tian Liu (Qingdao University)
- PS-A.15 **A High-Gain Broadband Filtering Antenna Based on ISGW**
Zhengyi Ma, Hong Yuan, Yuecheng Wang, Xi Zhao and Chenghai Xu (Yunnan University)
- PS-A.16 **Uncertainty Propagation in s-Parameter Measurement Due to Nonideal Calibration Standards and Noise**
ZiWei Li (Beijing University of Posts and Telecommunications); Huanxin Li (National Institute of Metrology); Zhijiao Chen (Beijing University of Posts and Telecommunications); Shuo Chen and Xiaohai Cui (National Institute of Metrology); Fenglin Yang (Beijing University of Posts and Telecommunications); Weijun Liang (National Institute of Metrology)
- PS-A.17 **Design of Pixelated Microstrip Line Structure Based on DBS Search Algorithm**
Zhao Gao, Wei Hong, HaoXiang Zhou and Yuyang Dai (Nanjing University of Science and Technology)
- PS-A.18 **A Broadband Hybrid Absorber Based on Resistive Film and Plasmonic Structure**
Hui Huang (Xi'an Institute of Electromechanical Information Technology); Xu Huang and Xin Ma (Northwestern Polytechnical University)
- PS-A.19 **A 0.5-26.5 GHz Ultra Wideband Distributed LNA with Active Termination**
Changran Luo and Hao Ning (University of Electronic Science and Technology of China); Yuxuan Zhu and Jie Liu (Lab. of Electromagnetic Space Cognition and Intelligent Control); Zhaowu Wang and Chi Zhang (University of Electronic Science and Technology of China); Xiaochen Tang (University of Electronic Science and Technology of China & Tianfu Jiangxi Laboratory); Yong Wang (University of Electronic Science and Technology of China)
- PS-A.20 **Compact Cross-Coupled Bandpass Filter Based on ISGW with High Selectivity**
Xi Zhao, Dongya Shen, Chenghai Xu, Yuecheng Wang and Zhengyi Ma (Yunnan University)
- PS-A.21 **A Measurement Method for Complex Permittivity of Thin-Film Materials Based on the NRW Method**
Xiaoyu Wang, Yuan yang Du, Yanghui Wu, Wenhua Gu and Dongliang Zheng (Nanjing University of Science and Technology)
- PS-A.22 **A Method for Obtaining Injection Phases of GaN Schottky Barrier IMPATT Diodes**
Xuan Huang (Xidian University)
- PS-A.23 **Comment on "Impact of Specific Electromagnetic Radiation on Wakefulness in Mice"**
Zhengjiang Zhao, Qiaoyu Li, Sihui Jia, Zijian Gao, Yucheng Feng and Yong Jin Zhou (Shanghai University)
- PS-A.24 **Dual-Band Nested Horn Antenna Based on TM01 Mode with Conical Beam Radiation Pattern**
Ziwei Sun (Nanjing University of Science and Technology); Wu Li (Nanjing University of Science and Technology); Boyang Qian and Jingwen Wang (Nanjing University of Science and Technology); Mingyu Zhou (Shanghai Geometrical Perception and Learning Co, Ltd)
- PS-A.25 **Design of a Tri-Band Multifunctional Shared-Aperture Array Antenna with Transmission, Reflection and Scattering**
Min Wang and Xuan Li (Chongqing University of Posts and Telecommunications); Zhengchuan Chen (Chongqing University)
- PS-A.26 **A DC-26.5 GHz SPDT Switch Based on 130 nm SOI CMOS**
Yujin Chu (Ceyear Technologies Limited Liability Company)
- PS-A.27 **Low Upper Cut-off Frequency Bandpass Filter Based on Spoof Surface Plasmon Polaritons**

- Qipeng Wang and Zhongxuan Pang (AVIC Research Institute for Special Structures of Aeronautical Composites, Jinan)
- PS-A.28 ***A Patch Resonator for the Measurement of Dielectric Constants of Nematic Liquid Crystals at Millimeter-Wave Frequencies***
Zhongxuan Pang and Qipeng Wang (AVIC Research Institute for Special Structures of Aeronautical Composites, Jinan)
- PS-A.29 ***Stepped Impedance Matching for Broadband Transmission Optimization in 3-D Heterogeneous Interconnection***
Tianhui Zhao, Xiangkun Yin (Xidian University); Fengjuan Wang (Xi'an University of Technology); Xiaoxue Huang and Libo Qian (Xidian University)
- PS-A.30 ***A Mode Reduction Metal Resonant Cavity Frequency Tuning Method and Application***
Changpu Shao (Jilin University); Wei Wang (Institute of Flexible Electronics Technology of Tsinghua, Zhejiang)
- PS-A.31 ***Graphene Materials for Total Efficiency Enhancement of Electrically Small Antennas***
Hongyu Zhou, Haoran Zu, Rongguo Song and Daping He (Wuhan University of Technology)
- PS-A.32 ***A Novel Design of Millimeter Wave Vialess Filtering Switch Using RF Memristive Switches***
Wang Chen and Zhi-Yi Zhang (Shanghai Jiao Tong University)
- PS-A.33 ***Silicon-Embedded Heterogeneous Integration of Quartz Glass Filters and GaAs SPDT Switches for Dual-Band Ka-Band Filter Banks***
Zhicheng Zhu (Shanghai Jiao Tong University)
- PS-A.34 ***2-18 GHz Miniaturized High-Integration RF Receiver Front-End with Ultra-Wide Instantaneous Bandwidth***
Hong Bin Wang (University of Electronic Science and Technology of China)
- PS-A.35 ***Two/All-in-One Design Concept for Miniaturized and Low-Cost Integrated Components and Antennas***
Jun Xu (Southeast University)
- PS-A.36 ***Active Metamaterials and Plasmonics with Thin-Film Oxide Semiconductors***
Zhilin Cong and Yifei Zhang (Shandong University)
- PS-A.37 ***Design of Low-Loss Flexible Wearable Circularly Polarized Antenna Based on Electrospinning***
Yaqing Yu, Shuhui Tao (National University of Singapore (Chongqing) Research Institute); Yongxin Guo (City University of Hong Kong)

Poster Session

PS-B (Saturday, July 26, 10:00-12:20)

Poster Area

- PS-B.1 ***Lightweight Design of a Blended Rolled Edge Reflector in CATR***
Li Liu, Jinbang Wang, Dahai Hu, Xiaotong Li, Jigang Dong, Yahai Wang and Rui Zhao (Ceyear Technologies Co. Ltd)
- PS-B.2 ***Fabrication of Lightweight and Flexible Dielectric Resonator Absorber via Hot Pressing Process***
Yutong Liu (China); Jun Ouyang (University of Electronic Science and Technology of China); Shaowei Bie and Jianjun Jiang (Huazhong University of Science and Technology)
- PS-B.3 ***A Simple CVD for Depositing TSV Sidewall Insulation Layer***
Hongyu Yi (Shenzhen University)
- PS-B.4 ***Research and Design of Metasurface Structure for Non-Uniform Thickness Dielectric Bandpass***
Manman Kang, Enling Dai, Fanghui Sang and Yanghui Wu (Nanjing University of Science and Technology)
- PS-B.5 ***A Broadband Calibration Technology Based on the Difference of Dielectric Properties of Materials***
Kaiyue Liu (Beijing Institute of Technology); Xiue Bao (Beijing Institute of Technology & KU Leuven); Zeyu Wang (Beijing Institute of Remote Sensing Equipment); Lili Fang, Liming Si and Houjun Sun (Beijing Institute of Technology)
- PS-B.6 ***Design of E Band Wideband Vialess Vertical Transition Based on BPNN Method***
Wei Hong Liu (Xi'an University of Posts & Telecommunications); Songbo Wang and Shuai Zhang (Xi'an University of Posts and Telecommunications)
- PS-B.7 ***Dual-Tone Method for Phase Linearity Measurement of Wideband Transmitter***
Defeng Zhang (National Instruments, China & NI Xi'an Branch)
- PS-B.8 ***Design and Analysis of a Broadband High Gain Metasurface Antenna Joint UAV for 5G***
Jianyin Cao and Zhendong Ding (Nanjing University of Science and Technology); Hao Wang (Nanjing University of Science & Technology); N Nasimuddin and Michael Chia (Institute for Infocomm Research)
- PS-B.9 ***A SLA-Based Fractal Antenna Design for Wrist-Worn Wearable Applications***
Shuai Li (Beijing Institute of Technology); Chenhao Yin (School of Integrated Circuits and Electronics Beijing Institute of Technology); Kaiyue Liu (Beijing Institute of Technology); Giovanni Gugliandolo, Mariangela Latino, Giovanni Crupi and Nicola Donato (University of Messina); Lili Fang, Liming Si and Houjun Sun (Beijing Institute of Technology); Xiue Bao (Beijing Institute of Technology, China & KU Leuven)
- PS-B.10 ***Causality and Passivity Constrained Neural Network Prediction of Electromagnetic Performance in Reconfigurable Microsystem Interconnects***
Wentao Liu, Li Guoliang, Guangbao Shan, Yanwen Zheng, Xiaopeng Li and Weihua Fan (Xidian University); Yang Wen (Beijing Aerospace Feiteng Equipment Technology Co., Ltd.)
- PS-B.11 ***Design of a Ku-Band Limiting Low-Noise Amplifier with BGA Packaging***
Xin Zhou, Lu Cui, HengGuo You and Shuai Liu (China Electronics Technology Group Corporation)
- PS-B.12 ***Signal Integrity Analysis of High-Speed Flip-Chip Interconnection Structures Based on HFSS***
Yanghui Wu (China Electronics Technology Group Corporation No.58 Research Institute);

- Fanghui Sang (Nanjing University of Science and Technology); Pengcheng Zhao and Wenhua Gu (Nanjing University of Science and Technology)
- PS-B.13 ***A High-Power-Density Synchronous GaN Class-F Rectifier MMIC for on-Chip MWPT Micro-System***
Jingyuan Zhang, Xu Yan and Yongxin Guo (City University of Hong Kong)
- PS-B.14 ***Design of a Wide Input Power Range Rectifier for Energy Harvesting***
Chen Gao (National University of Singapore)
- PS-B.15 ***A 288.4 W 6.78 MHz Push-Pull Class EF Inverter at 85% Efficiency***
Shiyang Luo, Xiaozhou Zhou and Hao Zhang (Northwestern Polytechnical University)
- PS-B.16 ***A Broadband Patch Filtering Antenna with Flat-Gain Based on ISGW***
Yuecheng Wang, Dongya Shen, Chenghai Xu, Xi Zhao and Zhengyi Ma (Yunnan University)
- PS-B.17 ***Synthesis Design for Filters Based on Metal Sheet Waveguide with Narrow Band Performance***
Ziji Tao, Yi WU, Kaixue Ma and Shixiong Liang (Tianjin University)
- PS-B.18 ***Ultrathin Wideband Metamaterial Absorber Using Indium Tin Oxide for Electromagnetic Shielding and Stealth Applications***
Nasir Ali and Jinzu Ji (Beihang University)
- PS-B.19 ***Sustainable Wireless Sensing Through RF Energy Harvesting Technologies***
Lei Guo (Dalian University of Technology)
- PS-B.20 ***A Real-Time Phase Demodulation Method Based Outlier-Robust Kalman Filter for FMCW Radar Vital Sign Detection***
Jinyang Liu, Yuchao Guo, Guangzhong Zhang, Naïke Du and Xiuzhu Ye (Beijing Institute of Technology); Xiao Fang (Beihang University)
- PS-B.21 ***Active Modulation of an All-Dielectric Metasurface Analogue of Electromagnetically Induced Transparency in Terahertz***
MengYa Pan and Yanpeng Shi (Shandong University)
- PS-B.22 ***Active SSPP-HMSIW Hybrid Filter with Integrated Graphene***
Zhaolin Li and Yifei Zhang (Shandong University)
- PS-B.23 ***Machine Learning-Assisted Two-Line Method for Extracting the Dielectric Constant of Nematic Liquid Crystals***
Zhongxuan Pang and Qipeng Wang (AVIC Research Institute for Special Structures of Aeronautical Composites, Jinan)
- PS-B.24 ***Design Method of GaN Based Microwave Rectifier for Wide Temperature Range***
Ren-Pin Huang, Yang Li, Junchao Yao and Jinping Ao (Jiangnan University)
- PS-B.25 ***Research on SISL Filtering Patch Antenna for 5G Communication Applications***
Ningning Yan (Tianjin University)
- PS-B.26 ***Investigation on Reconfigurable Integrated Passive Devices***
Zong-Rui Xu and Yongxin Guo (City University of Hong Kong)
- PS-B.27 ***Metasurface Antenna for Anomalous Reflection and Circularly Polarized Radiation***
Yi Zhao (Department of Information and Communication)
- PS-B.28 ***Design of a Wearable Flexible Antenna on SIR Hybrid with H-Shaped Slotted Patches for 5G Sub-6 GHz/mmWave Cross-Band Communications***
BoHan Zhang (Wuhan University of Technology)
- PS-B.29 ***A High-Gain Terahertz Metasurface-Inspired on-Chip Cavity-Backed Microstrip Antenna***
Zi Hao Wang, Ya Fei Wu and Yu Jian Cheng (University of Electronic Science and Technology of China)
- PS-B.30 ***A 84-129GHz Wideband Dual-Core Injection-Locked Frequency Tripler Using Gm-Enhancement Technique***
Yawen Zhang, Kaiming Zhong, Yanghang Lin, Xiang Yi, Pei Qin and Wenquan Che (South China University of Technology)

- PS-B.31 ***Design of a Scan Angle Enhancing RIS Antenna for High Frequency Short-Range-Radar Detection***
 Qiangli Xi (China Academy of Space Technology (Xi'an)); Shuo Liu (China Academy of Space Technology); He Bai and Jianxiao Wang (China Academy of Space Technology (Xi'an)); Xinbo Wang (China Academy of Space Technology (Xi'an)); Tiancun Hu (China Academy of Space Technology); Chongdi Duan (China Academy of Space Technology (Xi'an))
- PS-B.32 ***A Dual-Band Microwave Ablation Antenna Based on Hybrid Helical Dipole Structure for Minimally Invasive Treatment***
 Jingyi Shi, Han Wang and Yongxin Guo (City University of Hong Kong)
- PS-B.33 ***Rapid Automated Optimization of a 10-Watt Millimeter-Wave MMIC Power Amplifier***
 Haodong Li, Zhiwei Liang, Zeyuan Yu and Cetian Wang (Northwestern Polytechnical University); Lixiang Ding and Xiaopeng Zhang (North-China Integrated Circuit); Hao Zhang and He Guan (Northwestern Polytechnical University)
- PS-B.34 ***Microwave-Powered Wireless High-Voltage Pulse Drive Microsystem for Ultra-Micro Bionic UAVs***
 Ruoyu Jia (Northwestern Polytechnical University); Yuxuan Deng (City University of Hong Kong); Hao Zhang (Northwestern Polytechnical University)
- PS-B.35 ***AI-Based Matching Network Generation for MMIC Rectifier Design***
 Kunpeng Qiu (National University of Singapore); Yongxin Guo (City University of Hong Kong)
- PS-B.36 ***A Metalens with 3D Unit Cells for Independently Controlled Frequency and Phase***
 Xuyi Zhu and Bing Zhang (Sichuan University)
- PS-B.37 ***A Compact Dual-Polarized Co-Aperture Endfire SIW Antenna for Mm-Wave Communication***
 Min Wang and Yi Yan Luo (Chongqing University of Posts and Telecommunications); Zhengchuan Chen (Chongqing University)

Workshop for THz Measurement in IMWS-AMP 2025

July 26, 2025 13:30-15:30 (Room 1)

Yangtze River Delta Industrial Core Valley Convention and Exhibition Center,
No. 9 Fengwei Road, Xishan District, Wuxi, Jiangsu, China

➤ Introduction

With the rapid advancement of 5G/6G communications, high-speed imaging, and non-destructive testing technologies, the terahertz (THz) frequency band has emerged as a key research focus due to its unique spectral advantages. However, the precision measurement of THz devices faces significant challenges, including high path loss, microscale structures, and stringent calibration requirements, placing extreme demands on testing methodologies and system design. This workshop will focus on critical THz measurement technologies, covering front-end device development, imaging system innovations, and wafer-level testing solutions, aiming to accelerate the practical application of THz technology.

The event includes welcome speeches, invited talks, panel discussions and lab tour to Wuxi IC industrial park.

➤ Invited talks

- ✧ *On Wafer-Probe-Based Antenna Measurements*, **Yueping Zhang**, Nanyang Technological University
- ✧ *Key Technologies and Applications of Solid-State Terahertz Transceiver Front-End*, **Bo Zhang**, University of Electronic Science and Technology of China
- ✧ *Terahertz CT Imaging Technology*, **Weidong Hu**, Beijing Institute of Technology
- ✧ *High-Efficiency Terahertz Chip Testing Solutions*, **Jianqin Deng**, Ceyear Technologies Co. Ltd

➤ Potential topics

1. Radiation Characterization of Terahertz AoC and AiP
2. Accurate Modeling Techniques for THz Semiconductor Devices
3. Key Technologies in THz Imaging

2025 年 7 月 26 日 上午 13:30-15:30

江苏省无锡市锡山区凤威路 9 号 (长三角工业芯谷会展中心, Room 1)

主席: 陈智娇 (北京邮电大学)

➤ 活动简介

随着 5G/6G 通信、高速成像及无损检测等技术的快速发展,太赫兹 (THz) 频段因其独特的频谱优势成为研究热点。然而,太赫兹器件的精密测量面临高路径损耗、微小尺寸结构和高精度校准等挑战,对测试方法与系统设计提出了极高要求。本次研讨会将聚焦太赫兹测量关键技术,涵盖前端器件开发、成像系统创新及晶圆级测试方案,旨在推动太赫兹技术的实用化进程。

整场活动包括特邀报告、经验交流、参观无锡集成电路产业园三个环节。

➤ 特邀嘉宾

张跃平 (南洋理工大学)、张波 (电子科技大学)、胡伟东 (北京理工大学)、邓建钦 (中电科思仪科技股份有限公司)

➤ 讨论议题

1. 太赫兹片上天线 (AoC) 与封装天线 (AiP) 辐射特性测量
2. 太赫兹半导体器件精确建模方法
3. 太赫兹成像关键技术

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活动报名链接



活动报名二维码

现场备有中西式糕点及饮品,参会者到场后可凭**报名凭证**领取精美定制礼品一份,欢迎大家前来做客畅谈。



2025 IEEE MTT-S
International Microwave Workshop Series
On Advanced Materials and Processes
for RF and THz Applications (IMWS-AMP 2025)



Special Session: Women in Microwaves

—— Microwave Convergence: Bridging Disciplines - Frontiers and Challenges

Time: 15:50-17:50, July 24, 2025

Location: Room 1

Chairs: Prof. Zi He (NUST), Prof. Wanchen Yang (NUAA), Prof. Ye Han (NJUPT)

➤ Introduction

Microwave technology is rapidly merging with diverse fields. This special session explores key cross-disciplinary frontiers and common challenges. Join experts and practitioners to discuss future directions and solutions through talks and roundtable discussions. All are welcome.

➤ Invited Talk

✧ Prof. Yan Li (China Jiliang University)

Title: Electromagnetic Compatibility Challenges and Optimization Strategies for Neuromorphic Chips

✧ Prof. Zi He (Nanjing University of Science and Technology)

Title: Multi-Scale Electromagnetic Simulation, Intelligent Generation, and Adaptive Recognition for Complex Land/Sea Scenarios

组织人: 何姿 (南京理工大学)、杨琬琛 (南京航空航天大学)、韩叶 (南京邮电大学)

➤ 活动主题简介:

微波融合：学科之间的桥梁——前沿与挑战

微波技术正快速与多领域融合。本次研讨会聚焦跨领域合作的关键前沿与共性挑战。诚邀专家与实践者通过主题演讲和圆桌讨论，共同探讨未来方向与解决方案。欢迎各界人士参与。

整场活动包括特邀报告、圆桌讨论两个环节。本次活动不限性别，欢迎大家共同探讨！

➤ WiM：聚焦微波技术领域的女性

WiM 是 IEEE MTT-S AdCom MGA 下属的“微波领域女性”专委会，是女性工程师 (WIE) 的一个分支，专注于微波工程领域。WiM 的使命是通过各种活动吸引更多女性研究生和专业人士加入 MTT-S，并提高女性在 MTT-S 中的知名度和影响力。

➤ 特邀报告

✧ 李燕 中国计量大学

报告题目：神经形态芯片的电磁兼容性挑战与优化策略

✧ 何姿 南京理工大学

报告题目：复杂海陆场景的多尺度电磁仿真、智能生成与自适应识别

现场备有中西式糕点及饮品，参会者到场后可凭**报名凭证**领取精美定制礼品一份，参会者男女不限，欢迎大家前来做客畅谈

Exhibitors

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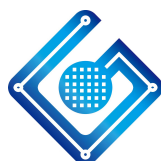
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