



UCMMT 2026

*19th United Conference on
Millimetre Waves & Terahertz Technologies*

Conference Programme Booklet

University of Birmingham, UK

23 - 26 August 2026

ucmmt2026.bham.ac.uk



**UNIVERSITY OF
BIRMINGHAM**

Technically sponsored by IEEE Microwave Theory & Technology Society (MTT-S), Antennas & Propagation Society (AP-S) and Electron Devices Society (EDS)

Welcome

Dear Colleagues,

On behalf of the Organising Committee, it is our great pleasure to welcome you to UCMMT 2026, the 19th United Conference on Millimetre Waves & Terahertz Technologies, hosted for the first time by the University of Birmingham - the birthplace of the cavity magnetron and the travelling-wave tube.

Continuing the UCMMT tradition of bringing together leading scientists, engineers and early-career researchers from the UK, Europe, China and beyond, this year's programme features four distinguished plenary speakers, more than twenty regular and special sessions spanning materials, devices, antennas, vacuum electronics, photonics, sensing and 6G communications, and two dedicated poster sessions. We are also delighted to host a satellite event on metamaterials for aviation and space technologies, organised with the UK Metamaterials Network+.

We are enormously grateful to the Technical Programme Committee and International Advisory Committee for shaping such a rich scientific programme, to our sponsors and exhibitors for their generous support, and to everyone at the University of Birmingham who has helped bring this event to life.

We wish you a stimulating, enjoyable and productive UCMMT 2026, and look forward to welcoming you to Birmingham.

Sincerely,

The image shows two handwritten signatures in blue ink. The first signature, on the left, is 'Wang' in a stylized cursive script. The second signature, on the right, is 'Miguel N' in a similar cursive script.

Prof Yi Wang and Dr Miguel Navarro-Cía

General Chairs, UCMMT 2026, University of Birmingham, UK

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The Organising Committee sincerely thanks the following reviewers for their time and expertise in evaluating the papers submitted to UCMMT 2026.

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Withawat Withayachumnankul, University of Adelaide

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Yannick Wenger, Keysight

Yi-Wen Wu, Southeast University

Zahra Rahimian Omam, Queen Mary University of London

Venue

UCMMT 2026 will be held at the University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK. The main conference sessions (23-25 August) take place at the Edgbaston Park Hotel (53 Edgbaston Park Rd, Birmingham B15 2RS), adjacent to the University campus; the satellite event on 26 August takes place in the Engineering Building (Y8) on the Edgbaston campus.

Getting to Edgbaston Park Hotel

Rail: Birmingham New Street train station connects directly to University Station via a high-frequency 7-minute service (usually departing Platform 12, towards Bromsgrove/Redditch).

Air: Birmingham International Airport has its own train station with a high-frequency service into Birmingham New Street.

Bus: Services X61, 63, X64 and 886 run from the city centre to the Edgbaston campus.

Car: From the M6, leave at Junction 6 (signposted Birmingham Central) to join the A38(M); the University is on the A38 Bristol Road. Visitor parking is available at the Northeast Multi-Storey Car Park (B15 2SA), floors 1-5, chargeable 08:00-18:00 (from £3.40/hour, £3.00 flat fee at weekends and bank holidays), payable via RingGo (location code 15677).

Getting from Edgbaston Park Hotel to The Exchange (Gala Dinner venue, 3 Centenary Square, Birmingham B1 2DR)

By rail + walk: take the train from University Station to Birmingham New Street (approx. 7 minutes), exit via Stephenson Street, and walk towards Victoria Square and into Centenary Square - The Exchange is opposite the Library of Birmingham.

By Metro: from New Street/Grand Central, board the West Midlands Metro and travel two stops to 'Library' in Centenary Square (under 2 minutes' walk from The Exchange).

By car/taxi: Centenary Square has restricted vehicle access - use the Town Hall (B1 1TA) or Navigation Street (B5 4AD) car parks; ask taxis to drop off at the Hyatt Regency (2 Bridge St, B1 2JZ), next to The Exchange.

Additional Information

Wifi

Connect to: **Edgbaston Park Hotel - ASK4 Wifi** No password required.

Car Parking Information

The Edgbaston Park Hotel and Conference Centre are delighted to offer complimentary on-site parking for our guests.

Edgbaston Park Hotel, 53 Edgbaston Park Hotel, B15 2RS

- 43 standard parking spaces
- 10 accessible (disabled) spaces
- 4 electric vehicle (EV) charging bays (charges apply at the charging point)

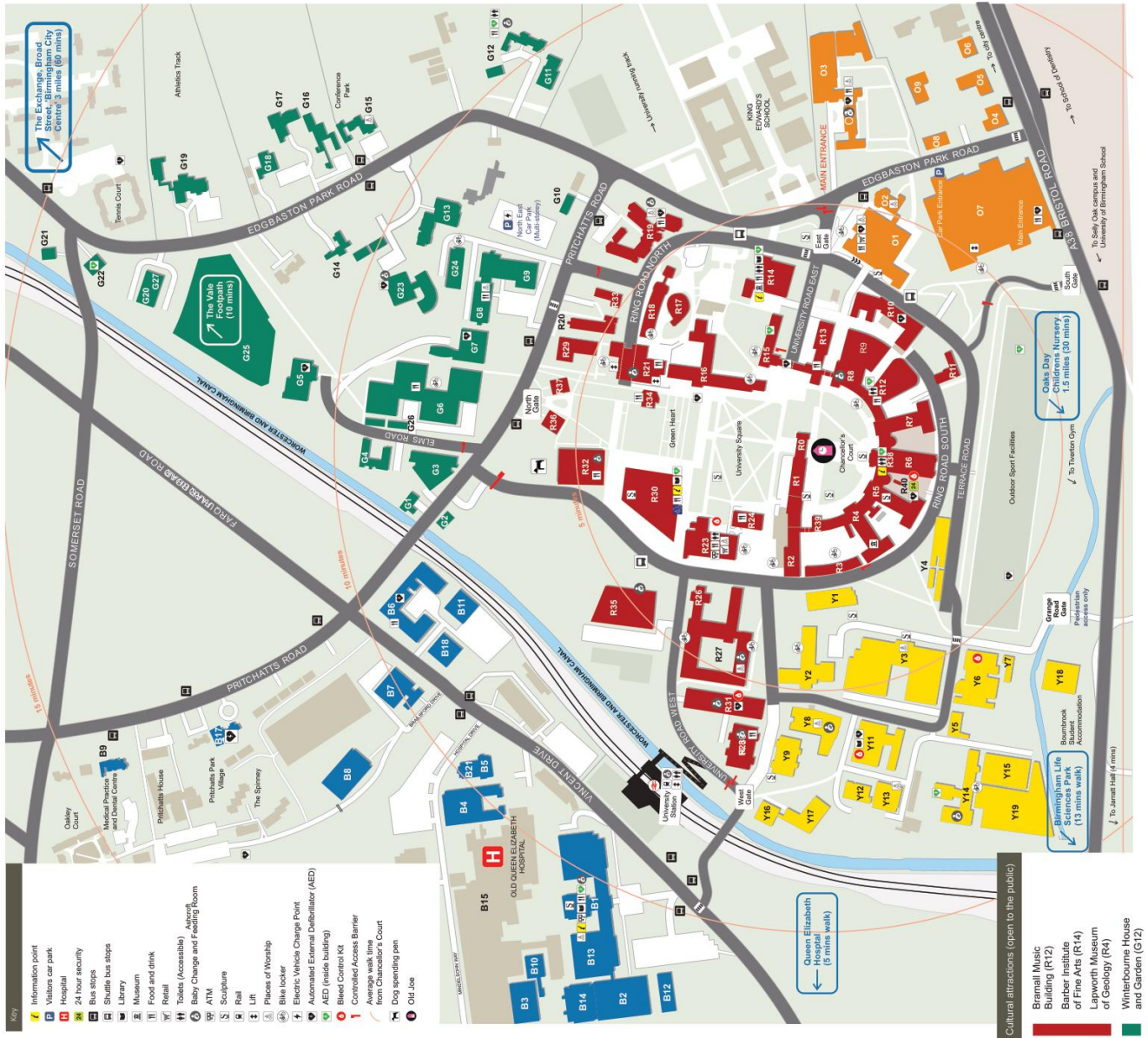
Multi-story car park, 52 Pritchett's Road, B15 2SA

- 78 spaces on the ground floor (free for hotel guests)
- 280 additional spaces available on the upper floors (subject to a daily charge via the RingGo app)
- No designated disabled spaces in this car park

Important Information

To validate your parking and avoid a fine, please enter your vehicle registration details on the tablet at reception. This applies to both the hotel car park and the ground floor of the multi-storey car park. All parking is offered on a first-come, first-served basis and is subject to availability.

University of Birmingham Campus Map



Edgbaston Campus Map

Red Zone

- R0 The Harding Building
- R1 Law Building
- R2 Frankland Building
- R3 Hills Building
- R4 Aston Webb – Lapworth Museum
- R5 Aston Webb – B Block
- R6 Aston Webb – Great Hall
- R7 Aston Webb – Student Hub
- R8 Physics West
- R9 Nuffield
- R10 Physics East
- R11 Medical Physics
- R12 Bramall Music Building
- R13 Poynting Building
- R14 Barber Institute of Fine Arts
- R15 Watson Building
- R16 Arts Building
- R17 Ashley Building
- R18 Strathcona Building
- R19 Education Building
- R20 J G Smith Building
- R21 Muirhead Tower
- R22 University Centre
- R23 Staff House
- R24 Geography & Environmental Sciences
- R25 Biosciences Building
- R26 Murray Learning Centre
- R27 The Alan Walters Building
- R28 Main Library
- R29 Collaborative Teaching Laboratory
- R30 Teaching and Learning Building
- R31 Fry Building
- R32 Quore
- R33 Molecular Sciences Building
- R34 Pritchatts Lodge 1
- R35 Pritchatts Lodge 2
- R36 Aston Webb Dome & Semi-Circle
- R37 Aston Webb Semi-Circle (West)
- R38 R40 Security

Orange Zone

- O1 The Guild of Students
- O2 St Francis Hall
- O3 University House
- O4 Ash House
- O5 Beech House
- O6 Cedar House
- O7 Sport & Fitness
- O8 Fir House
- O9 Elm House

Green Zone

- G1 32 Pritchatts Road
- G2 31 Pritchatts Road
- G3 European Research Institute
- G4 3 Elms Road
- G5 Computer Centre
- G6 Metallurgy and Materials
- G7 IRC Net Shape Laboratory
- G8 Gisbert Kapp Building
- G9 52 Pritchatts Road
- G10 54 Pritchatts Road – The Institute of Advanced Studies
- G11 Maples Nursery
- G12 Winterbourne House and Garden
- G13 Hornton Grange
- G14 Garth House
- G15 Westmere
- G16 Lucas House
- G17 Peter Scott House
- G18 Priorsfield
- G19 Park House
- G20 Wolfson Advanced Classhouses
- G21 Park Grange
- G22 Elms Day Nursery
- G23 Edgbaston Park Hotel and Conference Centre
- G24 Centre for Human Brain Health
- G25 Environmental Research Facility
- G26 Plasma Furnace
- G27 Elms Glasshouses

Blue Zone

- B1 Medical School
- B2 Institute of Biomedical Research
- B3 Institute of Translational Medicine
- B4 Robert Aitken Institute for Clinical Research
- B5 Denis Howell Building
- B6 Institute of Research and Development
- B7 90 Vincent Drive
- B8 Henry Wellcome Building for Biomedical NMR Spectroscopy
- B9 University Medical Practice
- B10 Advanced Therapies Facility
- B11 Biomedical Innovation Hub
- B12 Health Services Research Centre
- B13 Wolfson Centre for Medical Education
- B14 Medical School Extension
- B17 13 Pritchatts Road
- B18 Information & Computer Technology (ICT)
- B21 Cancer Immunology Building

Yellow Zone

- Y1 The Old Gym
- Y2 Haworth Building
- Y3 Y3
- Y4 Terrace Huls
- Y5 Estates West
- Y6 Maintenance Building
- Y7 Landscape Services Building
- Y8 Engineering Building
- Y9 Computer Science
- Y10 Chemical Engineering
- Y11 Biochemical Engineering
- Y12 Chemical Engineering Workshop
- Y13 Sport, Exercise and Rehabilitation Sciences
- Y14 Civil Engineering Laboratories
- Y15 Y16
- Y17 Public Health
- Y18 Bournbrook Sports Pavilion
- Y19 NBIF

Plenary / Keynote Speakers



Dr Goutam Chattopadhyay

NASA Jet Propulsion Laboratory (JPL), 2025 MTT-S President

Keynote 1 — Monday 24 August, 9:00-9:40

MHz to THz Technologies (MTT) and Our Place in the Universe

Abstract

Space exploration has long served as a powerful catalyst for inspiring the imagination of the next generation. The sight of rovers on Mars, images from distant galaxies, and the dream of humans returning to the Moon or reaching Mars ignite curiosity and a spirit of discovery in young minds. These missions are not just feats of engineering — they are stories that capture the human desire to explore the unknown and push beyond boundaries. By engaging students, educators, and the public in the wonders of space, exploration fosters STEM education, fuels innovation, and builds a generation that dreams bigger and reaches further. Beyond its inspirational value, space exploration offers a unique lens through which we can better understand ourselves and our place in the cosmos. As we study other planets and moons, we gain valuable insight into planetary evolution, atmospheric behaviour, and the potential for life beyond Earth. Observing Earth from space also provides critical data on climate change, environmental degradation, and the fragile systems that sustain life. In this way, space science not only fuels our search for extraterrestrial life but also deepens our understanding of Earth's past, present, and future. Ultimately, exploring the universe is a journey inward as much as outward — it challenges us to think about our shared humanity, our responsibility to protect our planet, and our collective future among the stars. In this lecture, we will explore the technological innovations in the MHz to THz frequency domain driving the next generation of space instruments and highlight specific instrument developments along with the fundamental science questions they aim to address.

Biography

Goutam Chattopadhyay is a Senior Scientist at NASA's Jet Propulsion Laboratory (JPL), California Institute of Technology (Caltech), and a Visiting Professor at Caltech in Pasadena, USA. He previously served as the BEL Distinguished Visiting Chair Professor at the Indian Institute of Science, Bangalore, and as an Adjunct Professor at the Indian Institute of Technology, Kharagpur. Dr Chattopadhyay received his PhD in Electrical Engineering from Caltech in 2000. He is a Fellow of the IEEE (USA) and the IETE (India), an Associate Fellow of the AIAA, the 2025 President of the IEEE Microwave Theory and Technology Society (MTT-S), a Track Editor for the IEEE Transactions on Antennas and Propagation, and an IEEE Distinguished Lecturer. His research focuses on microwave, millimetre-wave, and terahertz receiver systems and radars, as well as space instrumentation for the search for life beyond Earth. Dr Chattopadhyay has authored over 400 publications in international journals and conferences and holds more than 20 patents. He has received over 35 NASA Technical Achievement and New Technology Invention Awards. In 2025, he received the NASA-JPL North Star Award, the highest honour bestowed upon a NASA-JPL scientist. In 2024, he was awarded the prestigious Armstrong Medal by the Radio Club of America (RCA) in recognition of his outstanding contributions to radio science. He also received the NASA-JPL People Leadership Award in 2023. Among other honours, he was named IEEE Region 6 Engineer of the Year in 2018 and received the Distinguished Alumni Award from the Indian Institute of Engineering Science and Technology (IIST), India, in 2017. He is a two-time recipient of the Best Journal Paper Award from IEEE Transactions on Terahertz Science and Technology (2020 and 2013) and also received the Best Paper Award for Antenna Design and Applications at EuCAP in 2017. Additional accolades include the IETE Biman Bihari Sen Memorial Award (2022) and the IETE Prof. S. N. Mitra Memorial Award (2014).



Prof Marianna Ivashina

Chalmers University of Technology, Sweden

Keynote 2 — Monday 24 August, 9:40-10:20

Enabling sub-THz 6G Communications: Hybrid Antenna Architectures for Extreme EIRP and Adaptive Beamforming

Abstract

Future 6G networks will rely on mmWave and sub-THz frequency bands to provide multi-gigabit data rates over kilometer-scale distances for applications such as wireless backhaul and satcom links. However, extreme propagation loss pushes current antenna and semiconductor technologies to their limits. Achieving the required effective isotropic radiated power (EIRP) demands a challenging combination of high-gain antennas, efficient high-power transmitters, and hybrid beamforming with scalable complexity and cost. This keynote will highlight recent advances in millimeter-wave active antenna arrays addressing these challenges by exploiting new types of multi-beam quasi-optical beamforming networks (QOBFs). Throughout this talk, we will emphasize the design challenges at the interface between antennas and electronics in mmWave/sub-THz array front ends, and show how they can be addressed by co-design through QOBFs. Two recently developed W-band frontend demonstrators will be discussed in detail.

Biography

Marianna Ivashina is a Full Professor and the Head of the Antenna Research Group at Chalmers University of Technology (Gothenburg, Sweden). Her current research interests include antenna array systems, integration of antennas with active electronic components, synthesis of aperiodic arrays, and other unconventional array architectures such as reflectarrays and transmitarrays. She has published extensively on the above topics, having authored/co-authored over 200 journal and conference papers. Prof. Ivashina was previously an Associate Editor of the IEEE Transactions on Antennas and Propagation and is currently a Board member of the European School of Antennas (ESoA). Since 2021, she is the Delegate of the European Association of Antennas and Propagation (EurAAP) for Region 6: Iceland, Norway, and Sweden.



Prof Wei Hong

Southeast University, China

Keynote 3 — Tuesday 25 August, 8:30-9:10

Research Progress in Millimeter Wave and Terahertz Technology

Abstract

In this talk, the research progress in millimeter wave (mmWave) and terahertz (THz) technologies in the State Key Laboratory of Millimeter Waves (SKLMMW) of Southeast University and cooperative enterprises are reviewed, including the integrated circuits (chips) design, system development and field trial test.

Biography

Professor Wei Hong received the BS degree from the University of Information Engineering, Zhengzhou, China, in 1982, and the MS and PhD degrees from Southeast University, Nanjing, China, in 1985 and 1988, respectively, all in radio engineering. He is an Academician of the Chinese Academy of Science and a Professor of the School of Information Science and Engineering, Southeast University. In 1993, 1995, 1996, 1997 and 1998, he was a short-term visiting scholar with the University of California at Berkeley and at Santa Cruz, respectively. He has been engaged in numerical methods for electromagnetic problems, millimeter wave and terahertz theory and technology, antennas, RF technology for wireless communications etc. He has authored and co-authored over 400 technical publications and two books. He twice awarded the National Natural Prizes of China, once awarded the National Science and Technology Progress Award, four times awarded the first-class Science and Technology Progress Prizes issued by the Ministry of Education of China and Jiangsu Province Government, and 2021 IEEE MTT-S Microwave Prize etc. Prof Hong is a Fellow of IEEE, Fellow of CIE, the Vice Presidents of the CIE Microwave Society and Antenna Society and was an elected IEEE MTT-S AdCom Member during 2014-2016, served as the Associate Editor of the IEEE Trans. on MTT from 2007 to 2010.



Prof Sana Salous

Durham University, UK

Keynote 4 — Tuesday 25 August, 9:10-9:50

Propagation models for indoor and outdoor scenarios in international standards

Abstract

In the World Radiocommunication Conferences in 2019 and 2023 several frequencies in the mm-wave and sub THz bands have been identified for 5G and 6G mobile radio networks. This has prompted various national committees to conduct radio propagation measurements for typical deployment scenarios to update the models in the International Telecommunications Union, ITU, recommendations ITU-R P.1238-13 for indoor scenarios and ITU-R P.1411-13 for outdoor scenarios. Similarly the European Telecommunication Standards Institute, ETSI has set up a working group to address the use cases, and develop propagation models in the sub THz band. The talk will give an overview of the multi band channel sounder developed at Durham University to conduct radio propagation measurements and the development of the models in the ITU recommendations and the current models under development in ETSI.

Biography

Professor Salous started her academic career as an Assistant Professor at Yarmouk University, Jordan. In 1989 she joined the Department of Electrical Engineering & Electronics at UMIST. In 2003 she joined Durham University where she currently holds the Chair in Communication Engineering and is the Director of the Centre for Communication Systems. Professor Salous' radio propagation research covers HF for sky wave propagation for long range communication and UHF to the millimeter wave band for 5G mobile communications. In this area she introduced the digital frequency sweep technique for high bandwidth channel sounders for radio propagation studies. She is an active member of URSI, various COST actions and a member of the UK delegation to the International Union of Telecommunications.

Technical Programme

Programme at a Glance

Sunday 23 Aug	16:00-18:30 Registration; 18:30-20:30 Welcome Reception	<i>Edgbaston Park Hotel (Hornton Grange / Lloyd Suite)</i>
Monday 24 Aug	08:00-17:30 Opening, Keynotes 1-2, Sessions S1-S10, Lunch/Poster Session 1, Coffee breaks	<i>Edgbaston Park Hotel (main)</i>
Tuesday 25 Aug	08:00-22:00 Keynotes 3-4, Sessions S11-S21, Conference Photo, Lunch/Poster Session 2, Gala Dinner & Awards	<i>Edgbaston Park Hotel / The Exchange</i>
Wednesday 26 Aug	09:00-15:30 Metamaterials Satellite Event & Social Event	<i>Engineering Building (Y8) / Edgbaston Park Hotel</i>

Monday 24 August 2026 — Edgbaston Park Hotel

08:30-09:00 Opening Ceremony (Fry Suite) — Conference Chairs, Int. Advisory Board (Prof Xiaodong Chen), UoB (Prof John Murphy), IEEE (Prof Goutam Chattopadhyay), TPC (Dr Chad Bartlett)
09:00-09:40 Keynote 1 — Goutam Chattopadhyay (NASA JPL)
09:40-10:20 Keynote 2 — Marianna Ivashina (Chalmers University of Technology)
10:20-10:30 IEEE Transactions on Terahertz Science and Technology (T-TST) promotion talk — Miguel Navarro-Cía
10:30-11:00 Coffee break (Fry lounge and Upstairs)

11:00 - 12:40

Parallel sessions S1-S3

S1 — Advanced Materials & Manufacturing Techniques

Chairs: Chad Bartlett (University of Birmingham) / Bing Zhang (Sichuan University)

[AP-S DL 295] Exploring the Potential of 3D Printing Technologies for Antenna Design and Fabrication - Challenges and Opportunities

Bing Zhang

[4659] E-Band Liquid Metal-Enabled Reflection-Type Phase Shifter (Invited)

Yi-Wen Wu

[8208] Recent Progress on Sub-terahertz Tunable Ferroelectric Thin Films

Binbin Hong, Zhifeng Xiao, Tao Zhang, Yuqiao Song, Aiji Wang and Jinxing Zhang

[7373] Silicon-based THz photomodulators with controlled efficiency and switching speed (Invited)

John Murphy, Xavier Romain, Edris Khorani, Ailish Wratten, Sophie Pain, Anil Kumar, Ian Hooper, Euan Hendry and Nicholas Grant

S2 — Antennas

Chairs: Qingxin Chu (South China University of Technology) / Jingyu Lin (University of Birmingham)

[3911] Wide-angle Circularly Polarized Beams Cover and High-gain Satellite Communication Metal-framed Mobile Phone Antenna (Invited)

Zhenghua Rong, Qing Xin Chu, Pei-Lin Yu and Peimin Huang

[2702] Robustness Analysis of the Matrix Method for Cylindrical Near-Field to Far-Field Transformation

Yancheng Cao and Zhengpeng Wang

[7654] A Gap-Waveguide-Fed ME-Dipole with Reconfigurable Circular Polarization for Wide-Angle Scanning

Boju Chen and Yi Huang

[3458] A Wideband 5-Bit Digital Phase Shifter With 32 States Based on Multi-Mode Resonators

Yanfeng Guan, Sai-Wai Wong, Junchen Luo and Jing-Yu Lin

S3 (CS-10) — Mm-Wave & THz Propagation, Measurements & Channel Modelling

Chair(s): Fatemeh Norouzian (University of Birmingham) / Sana Salous (Durham University)

[3509] Sub-THz Sensing and Classification of Randomly Distributed Spherical Particles

Seyediman Nazerkakhki, James Elgy, Alex Bystrov, Beth Jelfs, Marina Gashinova and Fatemeh Norouzian

[1409] A Design of Controlled Indoor Millimeter-Wave Channel Measurement System

Daoxiang Wang, Yuan Yao, Pengwei Gong, Chenxi Wang, Kun Zhang, Jianyu Gong and Xiaohe Cheng

[5177] Experimental Study of Millimeter- and Sub-THz Wave Propagation Through Vegetation

Fatemeh Norouzian, Edward Hoare, Mikhail Cherniakov and Marina Gashinova

[8968] Source Reconstruction under Measurement Noise in Antenna Measurements with Nearby Scatterers

Xin Li and Zhengpeng Wang

[198] Multipath and Beamforming Techniques for Target Height Estimation in Automotive Radar

Anum Pirkani and Shahrazad Sabery

12:40-13:45 IEEE-T-TST sponsored Lunch [Upstairs] / Poster [MacNeice room] / Exhibition [The Composers' Suite]

13:45 - 15:25

Parallel sessions S4-S7

S4 (CS-3) — Millimeter-Terahertz Wave Vacuum Electron Devices & Physics

Chair(s): Chaohai Du (Peking University) / Zhaoyun Duan (University of Electronic Science and Technology of China)

[8638] Further Simulation Investigation of a Sheet Beam Electron Gun for 0.22 THz Metamaterial-Inspired Traveling-Wave Tubes

Jinrui Zhang, Jibo Dong, Zhifang Lyu, Shengkun Jiang and Zhaoyun Duan

[2092] High-Q Terahertz Multi-Channel Smith-Purcell Radiation Based on Spoof Surface Plasmons

Ji-Tao Yang, Ding-Tao Yang, Yu-Lu Lei and Chao-Hai Du

[4010] Concept Design of a 1-MW Rising-Sun Magnetron at 28 GHz for Fusion Plasma Heating

Awais Khan, Jin Zhang and Xiaodong Chen

[8953] Experimental Investigation on Multi-Frequency Terahertz Harmonic Gyrotron

Feng Zhang, Jiaji Feng, Xinyin Cao and Chaohai Du

S5 (CS-2) — Advancements in Phased Arrays & Beam Steering Technologies

Chair(s): Eddie Ball & Sumin David Joseph (University of Sheffield)

[2639] Wide Steering 128QAM Direct Digitally Modulated E-Band Time Modulated Array Transmitter

Eddie Ball and Sumin David Joseph

[1181] A Wideband Dual-Polarized Millimeter-Wave Phased Array with Wide-Angle Scanning Performance

Hong Chuan Ye, Tao Wang and Chunxu Mao

[5988] Broadband GaAs On-chip E-band Series Fed Antenna Arrays

Sumin David Joseph and Edward A Ball

[1082] Ultra-Broadband Terahertz Beamforming with Optoelectronic Antenna Arrays (Invited)

Lars Liebermeister, Simon Nellen, Milan Deumer, Garrit Schwanke, Shahram Keynaninia and Robert B. Kohlhaas

[5486] Multi-dimensional Evolution of Terahertz Active Phased Arrays (Invited)

Yinian Feng and Bo Zhang

S6 (CS-4) — UK-Korea Special Session on Advanced Terahertz Photonics & Electronics

Chair(s): SaeJune Park (Queen Mary University of London) & Teun-Teun Kim (University of Ulsan)

Don Arnone, TeraView, Invited talk (10 min)

[5025] Quasi-optical THz Spectroscopy Systems for Communication and Non-destructive Applications

Miguel Navarro-Cía

[5566] High-Speed Terahertz Imaging and Sensing Using Fast Time-Delay Techniques

Yeong-Hwan Ahn

[2795] Ultrasensitive Terahertz Detection via Superconducting Nonlinearity and Engineered Quantum Nanogaps

Hyeong-Ryeol Park

[5842] Millimetre-Wave Comb Generated by an Optical Microcomb

Luke Peters, Antonio Cutrona, Luana Olivieri, Andrew Cooper, Fedor Getman, Vittorio Cecconi, Nitish Paul, Debayan Das, Maxwell Rowley, Sai Tak Chu, Brent E. Little, Roberto Morandotti, Juan Sebastian Totoro Gongora, Alessia Pasquazi and Marco Peccianti

[1730] Terahertz nanogaps for enhanced light-matter coupling and detection of nanoconfined water

Jeeyoon Jeong

S7 — Filters

Chairs: Zaicheng Guo (Nanjing Normal University) / Lu Qian (Heriot-Watt University)

[1961] Filtronic Filter Design Activities: From High-Power Space Systems to Emerging Quantum Applications (Invited)

Dang Duc Dinh

[6248] Dielectric Waveguide Bandpass Filter Based on Spoof Surface Plasmon Polariton (Invited)

Kai-Da Xu and Zeting Li

[4091] Ultra-Narrowband 0.66 THz Waveguide Filter With Wide Spurious-Free Window for Space Sounders and Imagers

Lu Qian, Yongxin Cheng, Simon Rea, Peter Huggard, Hussein Ezzeddine, Bertrand Thomas, Petri Piironen and Yi Wang

[5046] An E-band Waveguide Bandpass Filter Using Negative Dispersion-less Coupling Structure

Zai-Cheng Guo, Yongxin Cheng, Yi Wang and Gang Zhang

[8178] A 3-D Printed Cone-on-Cylinder-Shaped Bandpass Filter With Spurious Suppression

Yongxin Cheng, Lu Qian and Yi Wang

15:25-15:50 Coffee break (Fry lounge and Upstairs)

15:50 - 17:30

Sessions S8-S10 continue the themes of S4-S6 (CS-3, CS-2, CS-4 respectively). Free time follows for the remainder of the afternoon.

S8 (CS-3) — Millimeter-Terahertz Wave Vacuum Electron Devices & Physics (cont.)

Chair(s): Han-Qi Feng (Tsinghua University) / Yubin Gong (University of Electronic Science and Technology of China)

[9870] Development of Novel Metamaterial-Inspired Vacuum Electron Devices (Invited)

Zhaoyun Duan

[5913] Device-Oriented Design of Periodic Electromagnetic Structures via Physics-Regularized Surrogates

Hanqi Feng

[2297] Efficient high-power terahertz source based on dual-electron beams and a grating-loaded plasma channel

Mi Tian, Shengpeng Yang, Shaomeng Wang and Yubin Gong

[5945] Study on Higher-order Mode Suspended Double Meander Slot Line Slow Wave Structure for 1 THz Traveling Wave Tube

Patibandla Anilkumar, Shaomeng Wang, Lixia Yang and Yubin Gong

[9856] Efficiency Enhancement in an S-Band Axial Vircator

Domenico Conti and Patrizia Livreri

S9 (CS-2) — Advancements in Phased Arrays & Beam Steering Technologies (cont.)

Chair(s): Sumin David Joseph / Eddie Ball (University of Sheffield)

[3307] A Concentric-Ring Planar Sparse Active Phased Array Receiver with Aperture and Pattern Reconfigurable Capabilities

Shengqi Gao, Zhuowei Miao, Yiwen Wu, Zhaochen Li and Zhangcheng Hao

[8905] A Rotating Slow-Wave-Structure VICTS Antenna for Broadband Beam Alignment

Zhenzuo Chen, Xinyi Cheng, Yang You, Yunlong Lu, Jian Wang and Yi Wang

[5587] A Mechanically Reconfigurable Millimeter-Wave Slotted Waveguide Antenna for Wide-Angle Continuous Beam Steering

Evandro Cesar Vilas Boas and Felipe Augusto de Figueiredo

[883] Localization of Wireless Transmitter with Neural Network and Time-Modulated Antenna Array

Grzegorz Bogdan and Rafał Kutnik

[619] A 140GHz Scalable Phased Array Based on 1-D Coupled Oscillation Array

Yi Hu, Lihan Wang, Yinian Feng and Bo Zhang

S10 (CS-4) — UK-Korea Special Session on Advanced Terahertz Photonics & Electronics (cont.)

Chair(s): SaeJune Park (Queen Mary University of London) & Teun-Teun Kim (University of Ulsan)

[8120] Metasurface lens antenna for cryogenic applications

Chong Li, Mingyan Zhong, Yunan Jiang and Qusay Al-Taai

[1137] Imaging Collective Quantum Excitations via Terahertz Spatiotemporal Spectroscopy

Taewoo Ha

[1631] Topology Optimization for the Automated Design of THz Lens Antennas and High Q/V Resonators

Nikolas Hadjiantoni, Dou Feng, Miguel Navarro-Cía and Stephen Hanham

[2378] Non-Hermitian THz Metaphotonics

Teun-Teun Kim

[4323] 3D-printed THz devices for sensing applications

SaeJune Park

Tuesday 25 August 2026 — Edgbaston Park Hotel

08:30-09:10 Keynote 3 — Wei Hong (Southeast University)

09:10-09:50 Keynote 4 — Sana Salous (Durham University)

09:50-10:10 Coffee break (Fry lounge and Upstairs)

10:10 - 11:50

Parallel sessions S11-S14

S11 (CS-5) — Recent Advances in Metamaterial & Metasurface-Based Antennas & Devices from Millimetre to Terahertz Band

Chair(s): Mustafa K. Taher Al-Nuaimi (Tsinghua University) & Shaker Alkaraki (University of Nottingham)

[8503] Mutual Coupling Aware Design of Multifunctional Millimeter Wave Metasurfaces *(Invited)*

Miguel Beruete, Damián E. Rodríguez-Trujillo, Alicia E. Torres-García and Jorge Teniente

[9234] Terahertz spectroscopy with compact metasurface spectrometer *(Invited)*

Yuan Ren

[341] CMA-Guided Co-Design of Antenna and Metasurface for Dual-Circular Polarization at Millimeter Wave

Meha Agrawal, Ravi Yadav, Slawomir Koziel and Anna Pietrenko Dabrowska

[8410] Performance Analysis of Single and Multi-Phase Impedance Modulation-Based Metasurface Antenna

Subhadrita Ghosh and Okan Yurduseven

[9590] Semi-Analytical Design of Layered Metagrating Absorber for Wide-Angle Microwave Absorption

Ravi Yadav, Meha Agrawal, Slawomir Koziel and Anna Pietrenko Dabrowska

S12 (CS-6) — MMIC & IC Packages

Chair(s): Alex Koala (Compound Semiconductor Applications Catapult, UK) / Jianfeng Qian (University of Birmingham)

[3166] 3D-Printed Packaging Modules for Terahertz Applications

Daiki Ichikawa, Nguyen H. Ngo, Weijie Gao, Yuta Inose and Masayuki Fujita

[1206] High-power coherent emission from two-dimensional resonant tunneling diode oscillator arrays

Jahnabi Hazarika, Zhenling Tang, Fanqi Meng, Safumi Suzuki and Hartmut Roskos

[3920] Modular approach to GaN MMIC packaging and stabilization

Alex Koala, Jonathan Rhodes and Jayakrishnan Chandrappan

[7815] Comparative Analysis of In-situ SiN- and GaN-caped AlGaIn/GaN Schottky Barrier Diodes for Sub-THz Applications

Abdalla Eblabla, Arthur Collier, Aasif Bhat and Khaled Elgaid

S13 — Sensors and Systems for Industrial Applications

Chairs: Stephen Hanham (Imperial College London) / Zhongqian Niu (University of Electronic Science and Technology of China)

[6537] Basic Study of Misalignment Correction Methods in Near-Field Rectangular Orthogonal Mode Multiplexing

Gen Nakayama, Jiro Hirokawa, Takashi Tomura, Edward A. Ball and Stephen Henthorn

[7802] Research on Ultra-Wideband Front-End Technologies for Millimeter-Wave Test Instruments *(Invited)*

Zhongqian Niu

[8979] A Microfluidically Integrated Millimetre Wave Sensor for High-Sensitivity Label-Free Microparticle Detection

(Invited) Qinyu Wang, Bin You, Wen Sun and Lingling Sun

[2746] Enabling Extreme-Environment Millimetre-Wave Systems with Ultra-Wide-Temperature CMOS Data Converters

(Invited) Yiming Fan

S14 (CS-7) — Biomedical and Healthcare Applications

Chair(s): Rola Saad (University College London) & Yang You (Ningbo University, China)

[5516] A Low-cost Optically Transparent Reflectarray Antenna for 6G mmWave Applications

Amitesh Kumar, Pritom J. Bora, Aakash Bansal and Will Whittow

[2317] A Novel Miniaturized UHF RFID Tag Antenna for Wearable Applications

Chao Qun Li and Hao Ran Zhu

[8132] High-Performance Aerosol-Jet-Printed Flexible Antenna Arrays on Kapton Substrates

Zhengqing Wang, Salam Khamas and Rola Saad

[3446] Dual-Band Metallic Open Slot Antenna for Microwave-Induced Thermoacoustic Imaging

Lingguo Min, Yang You, Olumide Ogunlade, Yunlong Lu, Yi Wang and Jian Wang

[7759] Plasmonic Nanoantennas for Biomedical Applications: Design and Electromagnetic Analysis for Biomarker Sensing

Marco Scalici, Giuseppe Paterna and Patrizia Livreri

11:50-12:10 Conference Photo (Fry Suite or Garden)

12:10-13:15 Lunch [Upstairs] / Poster [MacNeice room] / Exhibition [The Composers' Suite]

13:15 - 14:55

Parallel sessions S15-S18

S15 — Reconfigurable Metasurfaces

Chair(s): Abdul Jabbar (Loughborough University) / Zaid Akram (University of Glasgow)

[3681] Dynamic Metasurface Antenna Enabled Real-Time 60 GHz Wireless Video Streaming: A System-Level Demonstration with USRPs and mmWave Front-Ends

Abdul Jabbar

[4620] Design of a Millimeter-Wave 1-bit Reconfigurable Double Layer Dipole Metasurface

Marcellina Titasari, Irsat Gulen, Costas Constantinou and Alexandros Feresidis

[2012] A 1-Bit Via-Free Active RIS Unit Cell for Next-Generation Beamforming and Smart Wireless Environments

Abdoalbaset Abohmra, Zaid Akram, Jalil Kazim, Muhammad Imran, Senad Bulja and Qammer H. Abbasi

[5369] Plasma-Based Reconfigurable Intelligent Edges for Blind-Spot Coverage

Krushna Kanth Varikuntla, Muhammad Ali Babar Abbasi, Simon Cotton and Okan Yurduseven

[7053] Spatio-Temporally Modulated Metasurfaces: A Paradigm Shift in mmWave/Terahertz Communications and Sensing (Invited)

Mohammad Neshat

S16 — Mm-Wave & THz Active Devices

Chairs: Farshad Eshghabadi (Viper RF Ltd) / Marianna Ivashina (Chalmers University of Technology)

[652] A 110-140 GHz Wideband 100 mW SiGe D-Band Power Amplifier for 6G Satellite Links (Invited)

Farshad Eshghabadi, Jim Mayock, Pratik Deshpande, Simon Chan and Hui Wang

[8377] Demonstration of a Split-Gate Power Amplifier using Four Independent Gates

Aquila Powell, Roberto Quaglia and Ehsan Azad

[6211] Design and Test of a 73 GHz Push-Push Oscillator Using Voltage Controlled Tuning Without Varactors

Eddie Ball and Sumin David Joseph

[6751] Power Amplifier Design Strategy for Satellite Multibeam Active Antenna Arrays (Invited)

Weiguang Song and Haijun Fan

[9357] Design considerations of 1.9 THz frequency multiplier chain

Maxime Missoum, Jeanne Treuttel, Lina Gatilova and Martina Wiedner

S17 (CS-9) — MM-Wave & THz Passive Components and Systems

Chair(s): Zhuo-Wei Miao (Southeast University) / Yang Yu (Tianjin University, China)

[4373] A Piezo-Motor Driven 500-600 GHz SP3T Waveguide Switch for Radiometric Calibration (Invited)

Yang Yu, Yi Wu, Shixiong Liang and Kaixue Ma

[7673] A 180-260-GHz Double Symmetrical OMT Based on Four Reverse Couplers

Jicong Zhang, Bo Zhang, Yinian Feng, Zhongqian Niu and Yong Fan

[4977] A D-Band Air-Filled Coaxial Line Based on Gap Waveguide Technology

Haowei Li, Chao Gu, Simon L. Cotton, Fatemeh Moradiani, Lei Liu, Zhiwei Zhang and Zhongxia Simon He

[6412] Development of Passive WR1.5 Waveguide Components (500-750 GHz)

Alvaro Ignacio Olivares Olivares, Giuseppe Virone, Oscar Antonio Peverini, Mauro Lumia, Francesco Modica and Alessandro Guida

[6228] A Twist-Integrated G-Band Waveguide Diplexer for Terahertz Atmospheric Profiling Sounders

Yang Yu, Jingyi Liu, Yi Wu, Shixiong Liang, Dongqi Gu and Kaixue Ma

S18 — Sensing and Imaging

Chairs: Miguel Beruete (Universidad Pública de Navarra, Spain) / Adrian Dobroiu (Tokyo Tech)

[7464] A design methodology for dispersion matching at SSPP interfaces for on-chip terahertz sensors (Invited)

Levi Smith

[2803] Imaging and sensing applications of terahertz waves using resonant-tunneling diodes

Adrian Dobroiu and Safumi Suzuki

[4839] Towards High Dynamic Range Terahertz Detection using Rydberg Atomic Vapour

Alicja Antczak, Aaditya Mishra, Miguel Navarro-Cía and Amita Deb

[3774] Characterising Anion Exchange Membranes Using Humidity-Controlled Terahertz Time-Domain Spectroscopy

Mozhdeh Mohammadpour, Sian A. Franklin, Yingdan Cui, William E. Mustain, George A. H. France, John R. Varcoe, Hungyen Lin

[2004] THz Material Properties of Sintered Ceramics as a Function of Water Content

Emil John Magaway, Alperen Sari, Aleksander Cendrowicz, Zhenyu Zhang and Miguel Navarro-Cía

14:55-15:15 Coffee break (Fry lounge and Upstairs)

15:15 - 16:55

Parallel sessions S19-S21

S19 — Materials & Metamaterials

Chairs: Lucy Hale (ETH Zurich) / Jinxing Zhang (Beijing Norma University)

[6936] Ultrastrong and Deep Strong Light-Matter Interaction in Two-Dimensional Electron Systems (Invited)

Lucy Hale, Elsa Jöchl, Felix Helmrich, Ethan Koskas, Frieder Lindel, Johan Andberger, Anna-Lydia Vieli, Deniz Turan, Mona Jarrahi, Mattias Beck, Jerome Faist and Giacomo Scalari

[8237] Type-printable Ferroelectric Metasurface (Invited)

Jinxing Zhang

[4888] Photonic terahertz detection using quantum phenomena in two-dimensional electron gases (Invited)

Wladislaw Michailow, Ran Chen, Ruqiao Xia, Matthew Tan, Zhe Wang, Ben Beddoes, Saptarsi Ghosh and David Ritchie

[7263] Direct Excitation of Topological Modes via the Metamaterial

Joshua Barrass, Miguel Navarro-Cía and Costas Constantinou

S20 (CS-8) — Glass-based Devices & Packaging Technologies

Chair(s): Jingyu Lin (University of Birmingham) / Chunxu Mao (South China University of Technology)

[433] Recent Development of RF On-Chip Filters on Glass Substrate

Jingyu Lin and Yi Wang

[3333] Heterogeneous Integration for D-Band Communications: A Broadband Metasurface AiP on Glass Interposer

Sumin David Joseph, Edward A Ball and Lee Ford

[9253] W-Band Horn Beam-Forming Network Fed Wide-Angle Multibeam Metasurface Antenna Enabled by Through-Glass Via Technology

Chun Geng, Ji-Wei Lian and Dazhi Ding

[7953] D-band Broadband On-Chip Antenna Arrays Based on Glass Substrate Technology

Haozhen Wang and Xiao Fang

S21 (CS-9) — MM-Wave & THz Antennas

Chair(s): Yi-Wen Wu (Southeast University) / Qingchun You (University of Birmingham)

[8797] Millimeter-Wave Integrated Beamforming Arrays: Fundamentals, Architectures and Prototypes (Invited)

Jun Xu, Pinpin Yan, Jixin Chen, Liang Gao, Yan Huang and Wei Hong

[5018] Ultra-Wideband Dual-Polarized Array Antenna for Ku/K/Ka-Band Satellite Communication

Qingchun You, Yang Hu and Yi Wang

[5966] A 300-GHz Multibeam Transmitter Using Multifocal Transmitarray

Jiahui Zhao, Zhuowei Miao, Yiwen Wu and Zhangcheng Hao

[8458] A Compact High Selectivity Magnetoelectric Dipole Filtenna for 5G Millimeter-Wave Applications

Jing-Jing Zhang, Zhang-Cheng Hao and Zhuo-Wei Miao

[8330] A Millimetre-Wave Phased-Array Antenna Using a Reconfigurable Slow-Wave Structure

Fayyadh H. Ahmed and Salam Khamas

18:30-21:30 Gala Dinner, Closing Ceremony & Best Paper Awards — The Exchange, Birmingham City Centre

Wednesday 26 August 2026 — UoB Engineering Building (Y8 – Room 330)

09:00-15:30 Metamaterials Shaping the Future of Aviation and Space Technologies — a satellite event organised by the Microwaves and THz Metamaterials Special Interest Group and the Space and Aviation Challenge Area of the UK Metamaterials Network+ (Room 330).

Metamaterials Satellite Event

9:00-9:30 Arrival with Refreshments

[S1A] Opening Remarks

[S1B] Keynote Session-1

Professor Alexandros Feresidis, Head of the Communications and EM Research Group, University of Birmingham

Harvinder Nagi, Senior System Architect, Satellite Applications Catapult (SAC)

[S2A] Research Funding and Innovation Landscape Session

Professor Robert Rolley (FIET) – Innovate UK (IUK) Knowledge Transfer Advisor (KTN)

Dr. Chanattra Ammatmanee – EPSRC Senior Portfolio Manager

10:30-10:45 Coffee Break

[S3A] Keynote Session-2

Professor Yi Huang, IEEE Fellow, University of Liverpool

Professor Mohammed El-Hajjar, MMWAVE Wireless

Associate Professor Dr. Mohsen Khaliliy, Antenna & Propagation

[S3B] Round Table Expert Opinions

Securing the Future of UK Space – Chaired by Harvinder Nagi (SAC)

12:30-13:30 Lunch and Networking

[S4A] Industry/Academia Showcase Session

[S4B] Policy and Road Mapping Session

Theme 1: Metamaterials for satellite Technologies

Theme 2: Metamaterials for Aviation, Defence and Future Mobility

[S4C] Closing Remarks and Next Steps

Day Trip Social Event

09:00-17:00 Day Trip Social Event (coach pick-up at 9 am outside of the Edgbaston Park Hotel)

Poster Sessions

Monday 24 August 2026 — Edgbaston Park Hotel — Macneice Room

Chairs: Shashwat Sharma (University of Birmingham)

[8376] Design of Multi-directional Reflective Metasurface Based on Attention-KAN-CNN Phase Prediction Model

Quanshi Qin, Shi Pu, Haoda Xia and Shuang Zeng

[5226] Characteristic Mode-Based Electromagnetic Reconstruction Method for Complex Lossy Dielectric Structures

Jihong Gu and Jiwei Lian

[1867] Machine-Learning-Assisted Free-Form Filter Design

Kai Fu, Da-Wei Wang and Wen-Sheng Zhao

[2161] A Low-Profile Co-planar Shaped-aperture Dual-Band Base Station Antenna: Restoring Relatively Independent Boundary Conditions to Suppress Mutual Coupling

Hao Weng and Rui Wu

[6342] Hybrid Global-Local Optimization Based on Hierarchical Surrogate Model for Bandpass Filter Design

Wang Dan, Xia Xiaoxuan, Ma Zhewang, Liu Fan, Zeng Fanjie and Wen Pin

[9020] Broadband Polarization Synthesis Network With Low Polarization Angle Deviation

Minghui Xu, Qingchun You, Zhenzuo Chen, Yunlong Lu, Zhenzhong Chen and Yi Chen

[8086] A Compact Millimeter-Wave Dual-Polarized Magnetoelectric Dipole Phased Array

Yu-Qi Ma, Zhi-Hong Tu, Huan-Bin Wang and Fu-Chang Chen

[800] A Stacked Metasurface-Enabled Ultra-Wideband Millimeter-Wave Antenna Array Using an Equivalent-Circuit Model

Zhi Zhao, Ji-Wei Lian, Jihong Gu and Dazhi Ding

[6364] A Reconfigurable PRS-Loaded Patch Antenna Enabled by Liquid Metal for Beam Steering

Rasoul Fakhteh Balasi and Yi Wang

[4677] Dual-Wideband Fabry-Pérot Resonator Antenna with Independent Dual-Port Feeding

Zhichao Sun, Ningning Yan, Yu Luo and Kaixue Ma

[8187] Self-Decoupling for Dual-Element $\pm 45^\circ$ Polarization Array

Xiwen Fu, Shengyuan Luo, Yingsong Li and Adrian Bekasiewicz

[3526] Design of an SIW-based Frequency-Scanning Millimeter-wave MIMO Antenna for 5G Applications

Muhammad Husnain, Syed Shahan Jehangir, Abdulrahman S. M. Alqadami, Rifaqat Hussain, Jibran Khan Yousafzai, Akram Alomainy and Muhammad Ikram

[6399] Polarisation Reconfigurable Dielectric Patch Antenna for Millimetre-Wave Applications

Ali-Abdullah Albarakati, Salam K. Khamas and Rawad Asfour

[9404] Generation of High Current Density Miniature Electron Beams for THz TWTs

Chuntian Huang, Yuan Zheng, Chengkun Bian, Yinyu Zhang, Shaomeng Wang and Yubin Gong

[6605] Dynamic Terahertz Beam-Number Switching via a Graphene Metasurface

Ling Jiang, Xingyu Guo and Yan Teng

[1476] Chiral Free-Electron Radiation

Juanfeng Zhu, Yu-Lu Lei and Chao-Hai Du

[1041] A High-Isolation Low-Profile Circularly Polarized MIMO Dielectric Patch Antenna for mmWave IoT Applications at 38 GHz with Decoupling Structure

Ali-Abdullah Albarakati and Salam K. Khamas

Tuesday 25 August 2026 — Edgbaston Park Hotel — Macneice Room

Chairs: Qingchun You (University of Birmingham)

[550] Thinned Coding Patterns for Reflection Magnitude Control in a Multi-Functional Reconfigurable Reflective Surface

Hang Yu, Rola Saad and Edward Ball

[612] Experimental Validation of Localisation in RIS-Assisted mmWave Networks

Md Tarek Hassan, Dmitry Zelenchuk, George Travers, Muhammad Ali Babar Abbasi and Gabriel Goncalves Machado

[1441] Reflective Metasurface Holography Based on Angular Spectrum Diffraction Method

Rui Yu, Guanghui Xu, Yingsong Li, Adrian Bekasiewicz, Gaonian Zhang and Wei Li

[768] A Huygens-based Terahertz Metasurface for Anomalous Transmission

Bo Yin, Tianchang Li and Jia Ran

[4972] A Transmitter and Receiver Based on 3-D Heterogeneous Integration

Zhe Zhao, Dong-Xin Ni, Zhao-Xiang Ren, Yin-Shan Huang, Wang-Wen Xu and Liang Zhou

[7805] Mm-wave and Sub-THz Metrology Power Sensors

Harshwardhan Kamble, Murat Celep, Daniel Stokes, Xiaobang Shang and Yi Wang

- [2769] A D-Band GSG Probe Fabricated by Micro-Metal Additive Manufacturing**
Zixin Liu and Cheng Guo
- [1126] A DC-100 GHz Ultra-Wideband Contiguous Triplexer based on Highpass Waveguide**
Yuchi Zhang and Bo Zhang
- [2698] A High Selectivity Dual-band Filter Based on a Strongly Coupled Structure**
Bo Situ and Fu-Chang Chen
- [3931] A CNC-Compatible Wideband Waveguide Hybrid Coupler for Sub-Terahertz Space Applications**
Soumojit Ghosh, Dhruva Das and Amitesh Kumar
- [9672] Design of a Compact Top-Bottom 2-way and 4-way Slotted Waveguide Power Combiner for Ka-Band Spatial Applications**
Patrizia Livreri, Luigi Miano, Antonino Pietro Sausa and Alessandro Di Miti
- [4113] Differential-/Common-Mode Excitable Four-Way Duplexing Power Divider**
Wei Yu, Fangfeng Li and Wenxuan Gao
- [3415] CPW Branch Line Coupler Design, Simulation, and Fabrication for Future RTD-Based Reflection Amplifier Applications**
Qusay Raghib Ali Al-Taai, Jue Wang, Abdullah Al-Khalidi, Qammer Abbasi and Edward Wasige
- [2464] All-Metallic Groove Metasurface with Tightly Confined Plasmonic Mode for High-Sensitive Terahertz Sensing**
Rongkun Yuan and Yi Huang
- [1734] Design and Optimization of a MWCNT-Integrated Dual Microwave Resonator Sensor for Methanol Gas Detection**
Abid Raza, Marcos Tavaras de Melo, Ignacio Llamas-Garro, Gabriel Goncalves Machado, Lauro Rodrigo Gomes da Silva Lourenço Novo and Lucas Martins Castelo Branco
- [5892] Evaluation of Sub-6GHz Compact Patch Antenna for Non-Invasive Blood Sensing**
Amal Swileh, Rola Saad, Fayyadh H. Ahmed and Salam K Khamas
- [9908] Time-Resolved Measurement of Ultrafast Photocurrent in Multilayer MoSe₂ Devices**
Zechuan Bin, Tinggui Yin, Tang Fu, Qiyu Zhang and Min Hu
- [8110] Physical Analysis of Terahertz Sensitivity to Blood Glucose in Multi-Layer Skin: A Transfer Matrix Approach**
Jiaqi Wang, Yuan Yao and Xiaohe Cheng

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The advertisement features a light gray background with a large, faint, stylized 'V' shape. At the top center is the Keysight logo, consisting of a red waveform icon followed by the word 'KEYSIGHT' in black. Below the logo is the main headline 'Accelerate Millimeter-Wave and Terahertz Innovation' in a large, bold, black font. Underneath the headline is the tagline 'You engineer what's **next**. We help you get there **first**.' in a smaller black font. In the center, there are four red rectangular boxes arranged in a 2x2 grid. Each box contains white text describing a service: 'Design and Simulate Advanced RF Systems', 'Characterize mmWave and THz Devices', 'Validate Antennas, Radar, and OTA Performance', and 'Bridge Research from Lab to Reality'. Below these boxes is a paragraph of text: 'Keysight is the mission-critical design enablement partner for organizations solving the world's most complex engineering challenges.' followed by another paragraph: 'We connect design, emulation, and test so you can move faster, reduce risk, and innovate with greater confidence.' At the bottom left, the text 'Innovations' is in a large black font, with a red triangle pointing right, followed by 'start here' in a bold black font. To the right of this text is a square QR code. At the bottom center, the website 'www.keysight.com' is written in a red font. A solid red horizontal bar runs across the very bottom of the advertisement.

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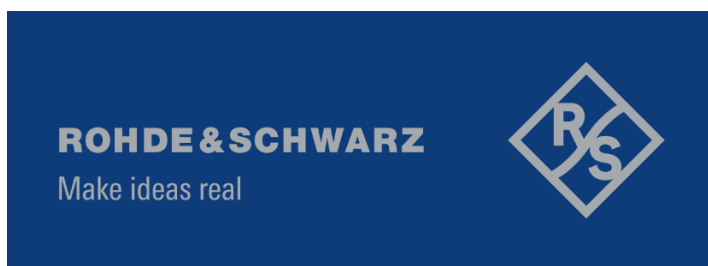
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Talent Microwave was founded in 2016 and focuses on microwave, millimeter wave and terahertz components and systems, with more than 200 employees. Products cover DC-750GHz, including power amplifiers, frequency multipliers, mixers, attenuators, coaxial switches and other passive devices, high-performance cables and connectors, as well as system integration products such as frequency synthesizers, transceivers, switch matrices and terahertz VNA extenders. Talent Microwave has exported to more than 50 countries.

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Academic research in RF and millimetre wave runs on its own rhythm — single-unit builds rather than production runs, programmes that span years rather than quarters, specs that evolve as the work evolves, parts that quietly go obsolete halfway through a PhD, and budgets that have to do more than they were meant to. This is the world RF Com is built for. We are a specialist RF and microwave distributor based in Edinburgh, founded in 2000, and the Gold Sponsor of this event because the research community in millimetre wave is where the next decade of the field is being done. In practice this means: access to manufacturers that volume distributors won't serve in single quantities, with deep stock at millimetre wave for imaging, communications, radar and sensing research; obsolescence sourcing for parts that disappeared between grant cycles; an in-house refurbishment and repair service; and a technical sales team made up of engineers. Find us at our stand or at rfcom.co.uk.

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Visit our booth at UCMMT

- Features down to 2 μ m
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www.bmf3d.com

The banner is a promotional graphic for BMF. It features a black background with a red border. At the top left is the BMF logo. The main title "Precision Manufacturing for RF & Millimeter-Wave Innovation" is in white. Below the title are three images: a white 3D-printed structure, a red pushpin, and a gold-coated RF component. The text "3D-printed" and "Gold-coated" are placed above the respective images. The main body of the banner is red with white text. It includes a headline "Design beyond manufacturing limitations.", a paragraph about micro-precision 3D printing, a call to action "Visit our booth at UCMMT", a list of three bullet points highlighting capabilities, and a website link at the bottom.

Boston Micro Fabrication (BMF) enables highly precise micro-scale 3D printing across the healthcare, life sciences, electronics, and machining industries. Using the company's proprietary P μ SL (Projection Micro Stereolithography) technology, the microArch system printers produce the industry's most accurate and precise high-resolution 3D prints for product development, research, and industrial short-run production. Founded in 2016, BMF has offices in Boston, Shenzhen, Chongqing and Tokyo.

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ANRITSU CORPORATION is a global leader in test and measurement solutions with 130+ years of engineering heritage, providing solutions that streamline the transition from simulation to field testing. Anritsu's philosophy engages customers as true partners to help develop wireless, optical, microwave/RF, and digital solutions for R&D, manufacturing, installation, and maintenance applications, as well as multidimensional service assurance solutions for network monitoring and optimization. Headquartered in Japan, Anritsu has approximately 4,000 employees across its offices in the Americas, EMEA, Asia, and other regions worldwide.

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Link Microtek



Founded in 1995, Link Microtek is a leading UK designer, manufacturer and supplier of specialist RF, Microwave and optical components and solutions. Combining world-class products from leading technology partners with extensive in-house engineering expertise, our capability spans from RF and Millimetre wave through to 2.5THz. Our solution portfolio ranges from semiconductors to module components, to systems and custom instrumentation, supporting universities, institutions and innovative technology companies to advance solutions in research, product development and production. With over 250 years of combined RF expertise, over 50% of our team have an engineering background. Our certifications include: ISO9001/14001, JOSCAR, ADS, SC21 & Cyber-Essential PLUS.

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Menlo Systems GmbH is a high-precision photonics company with an 18-year track record, delivering robust solutions to academia and industry. With more than 300 systems in the field, the Menlo terahertz portfolio covers time-domain and imaging systems for spectroscopy and inspection, built on robust figure 9® fiber-laser technology.

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UK Metamaterials Network+



The UK Metamaterials Network+ connects the UK's metamaterials research community, including the 'Microwaves and THz Metamaterials' Special Interest Group and the 'Space and Aviation' Challenge Area, who are co-organising the Metamaterials satellite event held alongside UCMMT 2026 on 26 August.

metamaterials.network

IEEE Transaction on Terahertz Science



The IEEE Transactions on Terahertz Science and Technology (T-TST) publishes original research on terahertz theory, techniques, and applications as they relate to basic science, components, devices, circuits, and systems involving all aspects of terahertz waves (300 GHz – 10 THz). The Transactions covers a wide range of activities and developments in terahertz science and applications while, at the same time, helping to bridge the technology gap between the RF and photonics communities.

mtt.org/publications/terahertz-science-technology/

Have a great UCMMT 2026!

The UCMMT 2026 Organising Committee
School of Engineering, University of Birmingham