



The 54th European Microwave Conference

EUROPEAN MICROWAVE CONFERENCE 2024 PARIS 24TH – 26TH SEPTEMBER 2024

The 2024 European Microwave Conference is Europe's largest conference dedicated to microwave, millimetre-wave and terahertz devices, systems and technologies and will give you opportunities to share and discuss your recent findings with peers and experts across this region of the spectrum. The 54th European Microwave Conference will take place in Paris, the capital of France, being famous as a vivid, inspiring world city of culture, politics, media, and science.

The conference is being held from the 24th to the 26th of September 2024 and it represents the main event in the European Microwave Week. A broad range of high frequency related topics, from materials and technologies to integrated circuits, systems and applications will be addressed in all their aspects: theory, simulation, design, and measurement. Examples include the latest developments of filters and passive components, modelling and design of RF MEMS and microsystems, high frequency and high data rate microwave photonics, highly stable and ultra-low-noise microwave and millimetre-wave sources, new linearization techniques, 6G, IoT,

and the impact of new packaging technologies on development applications. The topic "Sustainability and environmental impact" (E41) has been added this year, as the conference is aiming in addressing both the use of radiofrequency devices to enhance the sustainability of our societies, as well as investigating the environmental impact of RF technologies and identifying long-term mitigation measures.

The European Microwave Conference provides many opportunities for networking and interaction with international experts in a wide variety of specialties, attracting delegates with academic as well as industrial backgrounds. With carefully selected papers in more than 50 oral and poster sessions, the conference represents an exciting forum for the presentation and discussion of the most recent advances in the microwave area. In addition to scientific papers, contributions on industrial applications are also strongly encouraged, covering the fields of instrumentation, medical, telecommunication, radio astronomy, radar, space, automotive and defence systems.

EuMC 2024 CONFERENCE TOPICS

Passive Components, Circuits and Subsystems

- E01 Planar Passive Components and Circuits
- E02 Planar Filters and Multiplexers
- E03 Non-Planar Passive Components and Circuits
- E04 Non-Planar Filters and Multiplexers
- E05 Smart, functional materials, RF MEMS, MOEMS and NEMS
- E06 Metamaterials, Reconfigurable Surfaces (frequency, polarization, propagation...) and Electromagnetic Bandgap Structures
- E07 Interconnects and Packaging- from microwaves to THz circuits
- E08 Additive Manufacturing and Emerging Materials

Active Components, Circuits and Subsystems

- E09 Low Noise Hybrid Circuits and Modules (*)
- E10 Systems for Frequency Generation, Conversion and Control
- E11 Front-End and Transceiver Modules, System-in-Package Technologies
- E12 Power Amplifiers, including Efficiency Enhancement and Linearization (*)
- E13 Power Amplifier Behavioural Modelling and its applications:
- E14 Sub-THz and THz Components, Circuits and Systems
- E15 Microwave Photonic Components, Circuits and Systems (*)

Field and Circuit Analysis, Simulation and Characterization Techniques

- E16 Electromagnetic Field Theory and Numerical Techniques:
- E17 Electromagnetic Modelling and Optimization by Artificial Intelligence and Machine Learning
- E18 Electromagnetic Compatibility and Interference, Signal Integrity
- E19 Modelling of Interaction of Electromagnetic Waves with Matter, Biological Effects
- E20 Measurement and Characterisation Techniques- materials and devices
- E21 Channel Characterisation
- E22 Antenna and Array Characterisation Techniques

Antennas and Propagation

- E23 Microwave and Millimetre-wave Antenna Design (**):
- E24 Sub-THz and THz Integrated Antennas
- E25 Antenna arrays, Smart Antennas, MIMO Antennas and Related Tx/Rx Module Technologies (**):
- E26 Microwave and Millimetre-wave Integrated Antennas

Systems and Applications

- E27 Microwave Systems
- E28 Millimetre-wave Systems (**)
- E29 Sub-THz and THz Systems (**)
- E30 Biological and Medical Applications, Biomedical Sensing and Imaging, Dosimetry
- E31 Components and Systems for Remote Sensing Applications
- E32 Wireless Power Transfer and Energy Harvesting
- E33 Components and Systems for Microwave Sensing
- E34 Short Range Wireless Applications, RFID, NFC, IoT, WSN
- E35 Wearable Microwave Components, Antennas, and Systems
- E36 Smart Antennas, Digital Beam-forming and MIMO Antennas for Future Networks
- E37 Wireless High Data Rate Communications and Cognitive Radio
- E38 Smart Factory, Mobility and Logistics
- E39 Quantum Microwave Systems and Applications

General Topics

- E40 Education in RF and Microwave Engineering
- E41 Sustainability and environmental impact

(*) common topic with EuMiC

(**) common topic with EuRAD



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CONFERENCE HIGHLIGHTS

The European Microwave Conference is the ideal event to keep up to date with the most recent achievements in the field of microwave theory, technology, systems, and applications. Through its multidisciplinary and highly interactive character, it offers second-to-none opportunities to network and interact with international experts from the industrial and academic fields. High quality contributions, selected via a rigorous reviewing process, offer an unparalleled perspective on the state-of-the-art in the field. Keynotes and invited papers, presented by well-known specialists, as well as a variety of workshops, short-courses and special sessions on “hot topics” will complement the programme.

EUMC MICROWAVE PRIZE

The EuMC Technical Programme Committee and the EuMW Steering Committee will award the EuMC Microwave Prize of €5,000 to the author(s) of the best paper at the 54th European Microwave Conference. An extended version of the winning paper will be considered for publication in the International Journal of Microwave & Wireless Technologies.

EUMC YOUNG ENGINEERS PRIZE

The Technical Programme Committee of the EuMC and the EuMW Steering Committee will award two EuMC Young Engineer Prizes of €2,000 each to young engineers or researchers who have presented an outstanding paper at the European Microwave Conference. To be eligible, candidates must (1) be under 30 years of age at date of award, (2) be the first author of the paper, and (3) be the contribution presenter in an oral or a poster session. The first author must have made a major contribution to the work reported which must be described in an electronic statement signed by all authors of the paper (effectively co-authors state that their contribution was merely advisory). This statement has to include the date of birth of the first author and must be submitted together with the original submission. The number of co-authors of the paper is not limited. An extended version of the winning paper will be considered for publication in the International Journal of Microwave & Wireless Technologies.

REDUCED FEES AND SPECIAL GRANTS

Reduced registration fees are offered for students as well as senior persons aged 65 years or more. The European Microwave Association will also provide up to 14 student grants of €750 and free EuMC registration. Applicants for a student grant must be aged 30 or younger at the time of the European Microwave Week, be a full-time student (i.e., an undergraduate or a PhD student), and they will be asked to provide a supervisor’s written confirmation of their current student status. The European Microwave Association will also provide a number of grants for delegates coming from the Newly Independent States and from low-income countries. We are particularly proud to support applications from Ukrainian scholars. The value of the grant is €750 in addition to a free EuMC registration. Applications should be sent to the EuMW 2024 Grants Chair by emailing grants.eumw2024@eumwa.org within the deadline (see “Important Dates” section).

54TH EUMC TEAM

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