

SIX DAYS

THREE CONFERENCES

ONE EXHIBITION

EUROPE'S PREMIER
MICROWAVE, RF, WIRELESS
AND RADAR EVENT



EUROPEAN MICROWAVE WEEK 2024

CALL FOR PAPERS

IN
PERSON
EVENT

PARIS EXPO PORTE DE VERSAILLES PARIS, FRANCE
22 – 27 SEPTEMBER 2024



THE 27TH EUROPEAN MICROWAVE WEEK
COMBINES THREE CONFERENCES:

- The European Microwave Conference (EuMC)
- The European Microwave Integrated Circuits Conference (EuMIC)
- The European Radar Conference (EuRAD)

PLUS:

- Workshops, Short Courses, Focused/Special Sessions
- Defence, Security and Space forum, 6G forum, Automotive forum
- Student activities
- The European Microwave Exhibition



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The 21st European Radar Conference

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THE 27TH EUROPEAN MICROWAVE WEEK

The 2024 European Microwave Week (EuMW 2024) continues the series of successful microwave events that started back in 1998. EuMW 2024 consists of three conferences:

- The European Microwave Conference (EuMC)
- The European Microwave Integrated Circuits Conference (EuMIC)
- The European Radar Conference (EuRAD)

In addition, EuMW 2024 includes the Forum on Defence, Security and Space, the Automotive Forum, 6G Forum, an extensive trade show as well as student activities. EuMW 2024 provides the opportunity to participate in conferences, workshops, short courses, and special events such as Women in Microwave Engineering.

The annual European Microwave Exhibition, which is by far the largest RF and microwave trade show in Europe, is held in conjunction with the 3 conferences. The exhibition also includes a series of technical seminars and exhibitor workshops describing commercial products and processes.

The 2024 European Microwave Week will take place in Paris Convention Centre, 1 place de la Porte de Versailles 75015 Paris. The venue is easy to reach from two international Airports – Paris-Charles de Gaulle Airport (CDG) and Orly Airport (ORY) – with a wide range of public transport options available to travel to and from the airports: shuttle buses, Metro (metro station: Porte de Versailles – Parc des Expositions) and Railway connections (RER). See <https://www.parisaeroport.fr/passagers/acces>. It is also easy to reach by car or train.

Come join us at the heart of the ‘ville lumière’, Paris and enjoy the European Microwave Week. WAVES CONNECTING EUROPE is our slogan but also a way of modern living where microwave wireless technologies are enabling/enhancing an entire new set of possibilities for everyone on how individuals and objects communicate, sense and move. The Universal ‘Connected Humans’ sector is developing and evolving – join us in Paris to discover innovations and new paradigms for the microwave community as we look towards Horizon 2030.

ADDRESSES

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IMPORTANT DATES:

29 January 2024	Deadline for proposals of workshops, short courses, focussed and special sessions
17 March 2024	Deadline for submission of papers
17 May 2024	Notification of acceptance
4 June 2024	Deadline for submission of requests for grants, fellowships, and visas
18 June 2024	Deadline for final paper/WS submission

EUMW 2024 EXHIBIT:

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SUBMISSION OF PRELIMINARY PAPERS AND GENERAL INSTRUCTIONS FOR AUTHORS

Authors are requested to submit a 4-page preliminary paper in the standard conference proceedings layout, in English. A template, as well as instructions for paper submission, can be found on the website: www.eumweek.com. The paper must be uploaded in pdf format. The maximum file size is 3 MB. It is essential to emphasise the novel aspects of your paper. One author information form per paper must be completed when uploading the paper. The week comprises three conferences. A paper can only be submitted to a single conference. Do not upload the same paper to more than one conference. As regards the deadline for submission of preliminary papers, the notification of the status of the submission, and the final digest paper upload, please refer to “Important Dates” section in the second page of this Call for Papers. Late submissions will not be accepted. Each preliminary paper will be reviewed by the Technical Programme Committee (TPC) of the conference to which the paper has been submitted by the author(s). The TPC Chair decides whether a paper is accepted and assigns it to an oral or poster session. The General TPC Chair reserves the right to redirect a paper, which does not fit with the conference selected by its authors, towards the most appropriate conference. Authors of accepted papers will find instructions for publication and presentation on the EuMW 2024 website. Authors are responsible for obtaining publication approval from their employer or sponsor.

INCENTIVES FOR AUTHORS

Presenting at EuMW 2024 gives you the opportunity to interact with your peers, present your work to an international audience, receive feedback and exchange ideas with academia and industry. Your paper will be published in the IEEE Xplore Digital Library, contributing to your professional development, visibility, credibility, and proper exposure of your work. **Selected papers will also be nominated by the TPC for a Special Issue of the International Journal of Microwave and Wireless Technologies, published by Cambridge University Press. This Special Issue will be published in open access, with the article processing charges covered by the European Microwave Association (EuMA).** Each conference will award a conference best paper prize and one or two young engineer’s prizes. Prize winners will receive a financial award. All participants in one or more of the conferences will receive an electronic version of the conference proceedings.

WORKSHOPS AND SHORT COURSES

A number of workshops and short courses, on a variety of topics relating to current or emerging interests, will be organised during EuMW 2024. Do you have any suggestions for a workshop or short course? Your proposal is very welcome and should be sent to workshop.chair.eumw2024@eumwa.org. We encourage early discussion of any such ideas with the Workshops and Short Courses Chairs before the submission deadline. Proposals should be submitted on the templates which will be available from www.eumweek.com or can be requested directly to workshop.chair.eumw2024@eumwa.org. Regarding the deadline for proposals submission and the notification of the status of the submission, please refer to the “Important Dates” section on the second page of this Call for Papers.

FOCUSSED AND SPECIAL SESSIONS

Focussed Sessions are sessions dedicated to an emerging subject of specific interest to the microwave community. Special Sessions should reflect specific (historic or recent) events of interest to the microwave community or recognise the life work of people by honouring their contributions. They may also highlight technical achievements made in a specific geographical region of the world. Proposals for focussed or special sessions should be sent to focussed.sessions.eumw2024@eumwa.org, using the templates available from www.eumweek.com. As regards the deadline for proposals submission and the notification of the status of the submission, please refer to “Important Dates” section in the second page of this Call for Papers.

WOMEN IN MICROWAVE ENGINEERING

We continue the tradition of holding the Women in Microwave Engineering event during EuMW. Of course, any gender is welcome to participate in this event.

STUDENT ACTIVITIES

Students will shape the future of our profession and are particularly targeted throughout EuMW. Activities for students include ‘schools’ dedicated to PhD students and also master students as well as a Career Platform to help with planning professional development beyond university. For more information, please contact student.activities.eumw2024@eumwa.org.

STUDENT GRANTS AND VISAS

All EuMW conferences will provide several competitive student grants, and, in addition, the GAAS Association offers three PhD student fellowships for the European Microwave Integrated Circuits Conference. Applications should be sent to the General Chairman not later than June 4th, 2024.



THE CITY OF PARIS



Paris, the City of Lights, is the capital city of France, and its largest area is 105 km² with a population of 2.15 million people and around 12 million including the suburbs. Paris is also the centre of French economy, politics and culture. Paris has many art museums and historical buildings. Paris attracts millions of visitors every year to discover its old neighbourhoods, its fashion and luxury stores on the famous “Champs Elysées” and of course, the iconic “Tour Eiffel”. The Louvre is one of the most famous museums featuring the Mona Lisa and the Venus de Milo statue. Other museums include Musée Picasso, Musée Rodin, Musée d’Orsay and the Musée du quai Branly.



Paris has many theaters and opera houses. Two of the largest opera houses include Opéra Garnier and the Opéra Bastille. As a traffic center, Paris has a large underground subway system (called the Metro). The Metro was built in 1900, and its total length is more than 200 km. There are also two major international airports in the Paris suburbs: Charles-de-Gaulle and Orly. Paris is a cosmopolitan city with 20% of people from outside France. There are many different restaurants with all kinds of food.

For information on just a sample of the city’s sites, visit <https://parisjetaime.com/eng/>



PARIS EXPO PORTE DE VERSAILLES CONVENTION CENTER

The PARIS Expo Porte de Versailles Convention Center is a new venue providing contemporary, made-to-measure spaces for large-scale international conferences at an easy-access site which is just 15 minutes from the Eiffel Tower.

With an unique location in the heart of the capital, Vi-Paris Expo Porte de Versailles is more than 210,000 sqm of exhibition space, housed in 7 pavilions, including a vast 51,000 sqm space and a plenary hall that can seat 5,200 guests. Known worldwide and acclaimed by visitors, Paris Porte de Versailles opens the field of all possibilities by hosting more than 120 exhibitions each year but also many events, conventions, product launches, ... Whatever your requirements, its spaces are fully modular and available to hire to allow the wildest projects





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



The 54th European Microwave Conference

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).

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TPC Co-Chair	Simon Hemour, IMS Lab., Univ. Bordeaux	eumc.tpc.cochair.eumw2024@eumwa.org



The 19th European Microwave Integrated Circuits Conference

EUROPEAN MICROWAVE INTEGRATED CIRCUITS CONFERENCE 2024 PARIS 23RD – 24TH SEPTEMBER 2024

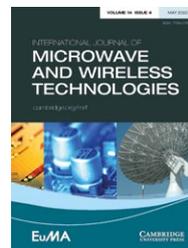
The 19th European Microwave Integrated Circuits Conference (EuMIC) will be held in Paris, France, as part of the European Microwave Week 2024. Initiated by the GAAS® Association in 1990 and renamed in 2006, the conference is being held from the 23rd to the 24th of September 2024 in Paris, France, Porte de Versailles. Paris, as the capital of France is an international hub for technical, financial, and entrepreneurial start-up activities in a truly dynamic city that never goes to sleep! The EuMIC conference is jointly organized by the GAAS® Association and EuMA, and is the premier European technical conference for all topics ranging from RF, microwave, and terahertz electronics over to ultra-fast mixed-signal circuits and systems to optoelectronics. Established as the key contributor to the success of the overall European Microwave Week the EuMIC conference is the largest scientific event in Europe related to microwave integrated circuits.

The aim of the conference is to showcase recent notable achievements and innovative trends within our industry and to encourage the exchange of scientific and technical information covering a broad range of high-frequency related topics in integrated circuits, ranging from devices and technologies to monolithic integrated circuits dedicated to system-in-package and system-on-chip applications; encompassing all relevant aspects such as theory, modelling, simulation, design, and measurement. Research in the field of microwave, terahertz, and optical electronics is crucial to enable innovations on the technology and infrastructure level in new and emerging applications of information and communication technology and sensing.

Mega trends such as 6G and terahertz connectivity, connected and environmental-aware vehicles, smart and intelligent sensing, pan-global satellite coverage, Smart City & Smart Factory developments all rely on high frequency devices and solutions. In addition, they drive the technology-pull and motivate in which field to invest and where to focus your IC start-up company.

Traditionally, the EuMIC conference has focused mostly on III-V compound semiconductor technologies, we are particularly keen and encourage more Si-based contributions as we recognise the rapidly progressing applicability of SiGe BiCMOS and CMOS/SOI solutions for microwave and millimetre-wave applications. The targeted technological

innovations continue to drive challenges for modelling fidelity, simulation complexity, design specifications as well as for the characterisation techniques applied at both device and circuit levels. While GaAs and silicon-based IC technologies are extensively used in today's systems, technologies such as wide-bandgap semiconductor (SiC, GaN, etc.), CNT, and graphene-based devices demonstrate a huge impact on the overall system performance and energy-efficiency. Moreover, new materials and devices push integrated circuit capability to millimetre-wave and even to THz bands, while in high-speed mixed-signal and digital integrated circuits microwave-oriented design techniques and paradigms become essential. The combination of photonics and electronics in optoelectronic integrated circuits represent other key areas of interest. In the modelling area, topics related to devices and circuits, small- and large-signal characterisation, test setups using single or multi-tone or wideband modulated excitation signals up to the THz regime are of prime interest. In the technology area, contributions in the field of nanotechnologies for microwaves, as well as wide-bandgap devices and technologies for microwave photonics are specifically solicited. Topics related to semiconductor devices, IC reliability, wafer-level packaging and 3D-interconnects of ICs are also invited to the conference. Finally, contributions in the areas of application-specific circuit design, RF, and microwave ICs, millimetre- and submillimetre-wave ICs, photonic ICs, mixed-signal and high-speed digital ICs, tuneable and reconfigurable ICs as well as integrated detectors, receivers, transmitters, and complete transceivers are highly encouraged.



If you are eager to hear of the latest advances in RF/microwave/mmWave device or IC technology, and how these will drive the next Telecom, Industrial, Automotive and Smart City revolutions, attend the EuMIC conference in September 2024! The organizational team is putting together an outstanding program, which ensures that you will be excited.

Authors of EuMIC 2024 papers will be encouraged to submit an extended version of their paper to a special issue dedicated to EuMIC in the EuMA's International Journal of Microwave and Wireless Technologies.

EuMIC 2024 CONFERENCE TOPICS

Modelling, Simulation of Devices and Circuits

- G01 TCAD and Multi-Physics Based Device and IC Modelling and Simulations
- G02 Linear, Nonlinear and Noise Characterisation and Modelling Techniques
- G03 Linear and Nonlinear CAD Techniques for Devices and Circuits
- G04 Advanced Methods for Microwave Integrated Circuit Design and Modelling (also including AI, DL, ML, ANN)

Technologies, Devices and IC-Processes

- G05 Nano-materials, Technologies and Devices for Microwave to THz Applications
- G06 Device and IC Manufacturing: Reliability, Processes, and Testing
- G07 Passive Devices, Hetero-Integration, and 3D-Interconnects in ICs
- G08 Si-Based Microwave and Millimetre-wave Technologies and Devices

- G09 Compound Semiconductor Technologies and Devices
- G10 New and Emerging Material and Device Concepts (Quantum Electronics, Topological insulators, 2D materials, M-Xenes, Organic, etc)
- G11 Devices for THz Electronics and Integrated Microwave Photonics
- G12 Wafer Level Packaging
- Integrated Circuit Design**
- G13 RF, Microwave, and Millimetre-wave Integrated Circuits up to 100 GHz
- G14 Millimetre-wave (beyond 100 GHz) and THz Integrated Circuits
- G15 Integrated Receivers, Transmitters, and High-Speed Transceivers (*)
- G16 Power Amplifier Integrated Circuits
- G17 Integrated Frequency Sources and Frequency Conversion (*)
- G18 ICs for Phased Array Antennas, MIMO, and Beamforming Transceivers and Building Blocks

- G19 Microwave Photonics Integrated Circuits and Silicon Photonic Transceivers
- G20 Mixed-signal Integrated Circuits and GB/s Data Converters
- G21 Low Noise Integrated Circuits
- G22 Si-based Integrated Circuits Design
- G23 Si-based Power Amplifier Integrated Circuits

Emerging Technologies and Applications

- G24 Microwave and Millimetre-wave Integrated Circuits for Innovative Applications (Smart Industry, Smart Devices, 6G, M2M, LoRa, RFID, IoT, ...)
- G25 Wearable Integrated Electronics for Sensing Applications from MHz to THz
- G26 Microwave Integrated Circuits for Autonomous Systems and Vehicular Communications (V2X, C-ITS, ...)
- G27 Microwave Integrated Circuits for Quantum Computing

(*) common topic with EuMIC



The 19th European Microwave
Integrated Circuits Conference

CONFERENCE HIGHLIGHTS

More than 100 papers and poster papers will be presented with contributions from Europe, Asia, Middle East, North and South America as well as emerging countries. High-quality papers and posters will be accepted after a rigorous review process and made available in the conference proceedings and online. Keynote speakers from industry and academia will present invited talks on hot topics. Tailored short-courses, workshops and lively panels round off the programme.

EUMIC MICROWAVE PRIZE

The EuMIC Technical Programme Committee and the EuMW Steering Committee will award the EuMIC 2024 Prize of €3,000 to the author(s) of the best contributed paper at the 19th European Microwave Integrated Circuits Conference. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

EUMIC YOUNG ENGINEERS PRIZE

The EuMIC Technical Programme Committee and the EuMW Steering Committee will award an EuMIC Young Engineer Prize of €2,000 to young engineers or researchers who have presented an outstanding paper at the European Microwave Integrated Circuits Conference. To be eligible, candidates must be (1) under 30 years of age at date of award, (2) 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 co-authors of the paper (effectively co-authors state that their contribution was merely advisory). Further rules are similar to EuRAD and EuMC.

TOM BRAZIL FELLOWSHIP AWARD STUDENT ESSAY COMPETITION

As part of the fellowship award, for the next three years, starting in 2021, the GAAS® Association will promote an essay competition in memory of Prof. Tom Brazil, a great contributor to the Microwave Community and a well-known friend and colleague to many of us. To be eligible to participate, the student has to be enrolled in a full-time PhD or graduate degree programme in microwave electronics.

A two-stage approach is taken to select the Tom Brazil Fellowship Award winners. Interested authors must submit a four-page abstract on His/Her view on "Microwaves in supporting global challenges," using one of the EuMIC conference topics, thus describing what kind of future microwave activities would be important and why. This abstract has to be submitted to the EuMIC conference using the paper submission portal until the 17th March. During the paper reviewing process, a shortlist of authors is determined. These authors are requested to provide an extended version of their contribution with a maximum of 4000 words or max of 12 pages. The shortlisted authors have to submit their essays by the 24th August 2024 to brazilaward.eumw2024@eumwa.org.

The best essay will be awarded a prize of €2,500. For the second and third place, prizes of €1,500 and €1,000 are granted. More information on the award is provided at the EuMW Awards page

REDUCED FEES AND SPECIAL GRANTS

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The 21st European Radar Conference

EUROPEAN RADAR CONFERENCE 2024 PARIS 25TH – 27TH SEPTEMBER 2024

The 21st European Radar Conference (EuRAD 2024) will be held from the 25th to 27th September 2024 in Paris, France, in the framework of the European Microwave Week 2024. This Radar Conference is the major European event for the present status and the future trends in the field of radar research, technology, system design, and applications. The EuRAD conference will bring together a global network of researchers, practitioners, and institutes working on topics related to the following four areas of focus.

The Radar Sub-systems and Phenomenology topic comprises radar electromagnetic phenomenology (including radar cross section) modelling and characterisation, antenna design (simulation and measurements) including innovations and methods in antenna characterisation, active or passive phased arrays and transceiver technologies as well as reconfigurable front-ends and sub-systems.

The Radar Signal and Data Processing topic aims to attract innovative research contributions on digital beamforming and other multi-antenna processing techniques (including MIMO, multi-static, and networked), interferometry, polarimetry, tomography, waveform diversity, detection, tracking, and target localisation, high-resolution radar signal processing techniques, classification, robust multidimensional signal processing techniques, and compressive sensing. Submissions are also

expected in the use of machine learning, deep learning, and adaptive techniques for radar. The Radar Architecture and Systems topic incorporates the latest development of sensors from the classical designs such as CW, over-the-horizon, passive, noise, and polarimetric radar, up to the most complex and sophisticated architectures, incorporated in, for example, remotely piloted aircraft, multi-sensor and multifunctional systems, UWB systems and millimetre-wave and THz radars. New tools for radar simulation and system performance modelling, model-based design, as well as new trends in cognitive, bio-inspired and software defined radars are encompassed.

The Radar Applications topic encompasses various domains such as automotive radars, radars for UAVs, defence and security, ground/space radar, remote sensing, subsurface and ground penetrating radar, surveillance, traffic control, as well as other radar uses, related to medical, industrial, and system diagnostic applications. Novel applications benefiting from multi-static radar systems, passive radar, short range and near-field radars, bio-medical imaging, millimetre-wave and THz technology or any other new emerging radar application are also included. A transversal focus is also expected on the re-emerging areas of electronic surveillance and countermeasures for radar applications also in relation to the growth of the internet-of-things.

EuRAD 2024 CONFERENCE TOPICS

RADAR Sub-systems and Phenomenology

- R01 Phenomenology and Modelling:
- R02 Antenna Design and Characterization (*)
- R03 Phased Arrays, Fully Digital Arrays, Circuits and Components, Tx/Rx Modules (*)
- R04 Radar Front-Ends:
RADAR Techniques
- R05 Beamforming, Multi-Antenna, and MIMO Techniques
- R06 Robust Detection, Estimation, and Target Classification
- R07 Compressive Sensing and Information Extraction
- R08 Localisation, Tracking, and Sensor Data Fusion
- R09 Imaging and High-Resolution Techniques
- R10 Cognitive Techniques, Waveform Diversity, and Sensor Management
- R11 Spectrum Sharing and Joint Radar and Communication
- R12 Machine Learning and Artificial Intelligence for Radar

RADAR Architectures and Systems

- R13 Ultra-Wideband, Noise, and Polarimetric Radar Systems (*)
- R14 Imaging, Short Range, and Synthetic Aperture Radar Systems
- R15 HF and Over the Horizon Radar Systems
- R16 Passive and Multi-Sensor Architectures
- R17 MIMO Radar Systems and Radar Networks
- R18 Adaptive and Cognitive Radar Systems (*)
- R19 Multifunctional Radar
- R20 Radar Millimetre-wave, THz Technology and Systems
- R21 Quantum Radar
- R22 Low-cost and Software-Defined Radar
- R23 System Simulation and Modelling

RADAR Applications

- R24 Defence Applications, Electronic Surveillance (ES), and Electronic Warfare (EW)
- R25 Radar for UAVs and Security Applications
- R26 Industrial and Emerging Applications
- R27 Medical & Biological Applications
- R28 Human Activity Monitoring, including Gesture Recognition
- R29 Automotive & Transportation
- R30 Geoscience, Weather & Environmental Remote Sensing
- R31 Radar Systems and Missions for Space Exploration

(*) common topic with EuMC



The 21st European Radar Conference

CONFERENCE HIGHLIGHTS

The conference is the ideal event to keep up to date with the latest achievements in the field of radar and to interact with international experts from industry and academia. The conference brings together researchers and radar designers and developers from all over the world to stimulate development of new trends, products, and services. International experts will present keynote papers on topics of current importance and on the latest advances. Tailored short-courses and workshops will complement the programme.

EUMA RADAR PRIZE

The EuMA Radar Prize is awarded by the EuRAD Technical Programme Committee and the EuMW Steering Committee to the best paper at the 21st European Radar Conference. The value of the EuMA Radar Prize is €3,000. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

EuRAD YOUNG ENGINEER PRIZE

The EuRAD Technical Programme Committee and the EuMW Steering Committee will award a EuRAD Young Engineer Prize of €2,000 to young engineers or researchers who have presented an outstanding contribution at the European Radar 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). Further rules are similar to EuMC and EuMIC.

REDUCED FEES AND SPECIAL GRANTS

Reduced registration fees are offered for students as well as senior persons aged 65 years or more and for military personnel (with proof of affiliation). The European Microwave Association will also provide up to five student grants of €750 and free EuRAD 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 EuRAD registration. Applications should be sent to the EuMW 2024 Grants Chair by emailing grants.eumw2024@eumwa.org within the deadline (see "Important Dates" section).

21ST EuRAD TEAM

Function	Name	Email
Chair	Guido Valerio, Sorbonne Université, Paris	eurad.chair.eumw2024@eumwa.org
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SIX DAYS

THREE CONFERENCES

ONE EXHIBITION

EUROPE'S PREMIER
MICROWAVE, RF, WIRELESS
AND RADAR EVENT



EUROPEAN MICROWAVE WEEK 2024

CALL FOR WORKSHOPS/ SHORT-COURSES

IN
PERSON
EVENT

PARIS EXPO PORTE DE VERSAILLES PARIS, FRANCE
22 – 27 SEPTEMBER 2024

The European Microwave Week 2024 will take place between 22nd and 27th September 2024 at Paris expo Porte de Versailles, Paris, France. Besides the contributed regular papers, the program will also include workshops and short courses. Should you have any ideas for workshops or short courses related to EuMC, EuMIC, and EuRAD, on exciting or emerging topics related to microwaves, please contact the Workshops and Short Courses Chairs, at workshop.chair.eumw2024@eumwa.org. We encourage early discussion of any such ideas with the Workshop and Short Course Chairs ahead of the submission deadline. We accept half-day (4–6 speakers) and full-day (8–12 speakers) workshops or short courses. Proposals should include the selected conference (EuMC, EuMIC, or EuRAD), the title and an abstract of the topic, complemented with details of the organizers and speakers. The template to be used for the proposals is available at www.eumweek.com. The submission deadline is 29th January 2024. We look forward to receiving your submission!



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SUBMIT WORKSHOP/SHORT-COURSE PROPOSALS ONLINE TO:
WORKSHOP.CHAIR.EUMW2024@EUMWA.ORG