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21-26 SEPTEMBER 2025
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Welcome to the 28th European Microwave Week

It is our great pleasure to welcome you to the 28th European Microwave Week (EuMW 2025), which takes place from 21 to 26 September 2025 in the heart of the Netherlands, at a unique venue, the Royal Jaarbeurs in Utrecht. We are thrilled to host this vibrant international community in one of Europe's most historic and forward-looking cities.

The theme of the European Microwave Week of this year, "Waves of Innovation," highlights the continuous advancements and groundbreaking research in microwave, RF, and wireless technologies. It symbolizes the dynamic progress in these fields, driving innovations in communication, sensing, and emerging applications such as 6G, quantum technologies, and radar systems. By bringing together experts from academia and industry, this theme underscores the transformative impact of microwave technologies on the future of connectivity and engineering.

As always, European Microwave Week provides a comprehensive platform for knowledge exchange, collaboration, and discovery. EuMW 2025 features:

- The 55th European Microwave Conference (EuMC)
- The 20th European Microwave Integrated Circuits Conference (EuMIC)
- The 22nd European Radar Conference (EuRAD)

Together, these conferences present a diverse and in-depth technical program, including plenary sessions, special and focused sessions, workshops, short courses, and more than 500 scientific papers. Topics span the full spectrum from microwave and millimeter-wave components and systems, to radar, 6G and beyond, terahertz technologies, integrated circuits, and sustainability in RF engineering.

Our program is further enriched by:

- A three-day international exhibition, with more than 300 exhibitors showcasing the latest advances in RF, microwave, and mm-wave technologies;
- Thematic forums including the 6G Forum, Automotive Forum, and Defence, Security and Space (DSS) Forum, which this year highlights Space Weather and its impact on space systems;
- Dedicated activities for the Women in Microwaves community, young professionals, and students, including the Student Career Event, the Tom Brazil Essay Competition, and tailored networking opportunities.

We are especially pleased to introduce a new highlight in this year's social programme: the EuMW Experience. Hop on the EuMW train at Utrecht Central station and join us for an evening event in the Utrecht Railway Museum. The EuMW Experience intends to foster a lively and friendly interaction between as many as possible of the week's participants against the backdrop of beautiful railway travelling landmarks. Other networking opportunities include the EuMIC Get-Together at the historic Paushuize, the Welcome Reception in the Beatrix theater, and AperiRadar, a new social gathering following the EuRAD sessions.

Hosting EuMW in Utrecht offers attendees a unique experience. This lively, student-rich city blends medieval charm with modern innovation. With its iconic Dom Tower, vibrant canals, museums, and welcoming atmosphere, Utrecht provides the perfect backdrop for a week of high-level scientific exchange and personal connection.

We extend our sincere thanks to all contributors – authors, reviewers, sponsors, exhibitors, volunteers, and the local organizing team – for helping us create a rich, inclusive, and engaging European Microwave Week. We are also grateful to EuMA and Horizon House for their continued support and dedication to the EuMW community.

We look forward to meeting you in Utrecht and sharing an inspiring and unforgettable EuMW 2025 with you!

On behalf of the EuMW 2025 Organizing Committee,

MARK BENTUM
General Chair
Eindhoven University of Technology, The Netherlands

DOMINIQUE SCHREURS
EuMW General Co-Chair
KU Leuven, Belgium

Utreg me stadsie! – A Warm Welcome from the President of the European Microwave Association

Welcome to the 28th European Microwave Week in vibrant Utrecht!

I am pleased to invite you to EuMW2025, a key event focused on groundbreaking developments in microwave theory and technologies. This event provides a unique opportunity to engage with world-renowned experts and fuels your passion for innovation. Utrecht, known for its centuries-old canals, lively street life, and rich spirit of creativity, is not just the heart of the Netherlands; it is a place where history and modernity blend seamlessly. EuMW2025 will showcase cutting-edge products and technologies, fostering dynamic exchanges within the microwave community.

At EuMA, we proudly support the microwave and RF sectors, promoting collaboration among scientists, engineers, and industry leaders. EuMW is our flagship event for knowledge sharing and networking, offering insights and opportunities to reconnect with peers worldwide.

Our commitment extends beyond the event itself. The 8th EuMA Internship Award in 2025 will again grant up to 10 awards of €4,500 each to outstanding Master's and PhD students, enabling internships in leading European industries. Details and applications are on our website, with a November deadline.

Moreover, EuMA provides grants and reduced registration fees to students and delegates from NIS countries attending EuMW, with special support for our Ukrainian colleagues.

EuMA offers membership to all working in the field of microwaves. Members enjoy reduced fees for attending EuMW and EuMA-sponsored events. EuMA members have free access to our archive of publications and the online version of the International Journal on Microwave and Wireless Technologies.

EuMA is very active on social media. Follow us @eumassociation on Facebook, LinkedIn, Twitter, YouTube and Instagram to discover our latest posts. We encourage you to like, share, and engage with our content–we're proud to reach around 7,000 followers. Plus, don't miss our insightful webinars, available live and on-demand via our webinar playlist on YouTube.

EuMW thrives thanks to collaborations with IEEE Societies MTT, AP, AESS, and ED; the GAAS Association; The MIKON Foundation; EurAAP; APMC; and our valued event organiser, Horizon House/ Microwave Journal.

Preparing and hosting the EuMW is a major effort, from paper submission and review to on-site organisation. This is accomplished by a team of volunteers year by year. My special thanks go to Mark BENTUM, the 2025 General Chair, and Operational Officer David PRINSLOO; Treasurer Ulf JOHANSSEN; General TPC Chair Diego CARATELLI; Hansi LAGER and Matthias GEISSLER, the EuMC Chair and Co-Chair respectively; Marion MATTER-KAMMERER and Cicero VAUCHER, the EuMIC Chair and Co-Chair respectively; and Laura ANITORI and Kostas DORIS, the EuRAD Chair and Co-Chair respectively. Thank you all!

I extend my sincere gratitude to Ivar BAZZY and Michel ZOGHOB from Horizon House for their unwavering dedication over the years in organizing the exhibition and providing comprehensive support to ensure a comfortable experience during EuMW.

EuMW returns to Utrecht with an outstanding technical and scientific program and a top-tier exhibition. We are certain your time here will be well spent and memorable. EuMW2025 in Utrecht is more than an event–it's a celebration of our collective passion for advancing microwave technology.

Join us in Utrecht, or as the locals proudly say, "Utreg me stadsie!"

FRANK VAN DEN BOGAART
President European Microwave Association

Welcome to the 20th European Microwave Integrated Circuits Conference, EuMIC 2025

We are delighted to welcome you to Utrecht, The Netherlands, for the 20th European Microwave Integrated Circuits (EuMIC2025) Conference, which will take place on Monday, September 22nd, and Tuesday, September 23rd, 2025. The EuMIC conference has been jointly organised by the GAAS® Association and EuMA since 2006. The historic city of Utrecht is thrilled to host the Microwave Integrated Circuits community from around the globe.

Within the frame of the European Microwave Week (EuMW), the EuMIC is the premier European technical conference for RF & microwave integrated circuits. The conference aims to stimulate lively discussions among academia and industry, experts as well as newcomers, on innovations, developments and trends covering the broad range of microwave, mm-wave, terahertz and related topics, from materials, Silicon, III-V and emerging technologies to integrated device, circuits and their applications. These will be addressed in all aspects: theory, simulation, design, and measurement.

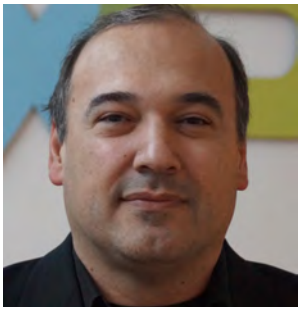
On Sunday, the day before the start of the conference, you can participate in one or more of the excellent workshops and short courses. Monday and Tuesday are equally busy days of the EuMIC conference. Monday will start with the Opening Session and continues with regular technical sessions and the Foundry session. The EuMIC Opening Session features two keynote addresses by eminent speakers. Prof. Kostas Doris, NXP Semiconductors, The Netherlands, will present on 'mm-Wave Radar and Beyond: An Automotive Sensing Perspective', and Prof. Ullrich Pfeiffer, University of Wuppertal, Germany, will present on 'Next-Gen Terahertz SoCs: Light-Field Imaging and Scalable Incoherent Architectures'. The Foundry Session will discuss the strategy for investing in semiconductor technologies in Europe by a panel discussion with industrial and academic leaders. The day concludes with the EuMIC Get-Together, which will take place in the splendid location Paushuize in the historic city center of Utrecht, sponsored by Eindhoven Hendrik Casimir Institute, NXP and the GAAS association.

Tuesday will start with technical sessions, followed by the EuMW opening sessions. An interactive poster session and more technical sessions in the afternoon and the EuMIC Closing session, make Tuesday a EuMIC day with a full program. The EuMIC Closing Session will start with a keynote by Prof. Yves Baeyens, Director of the High-Speed Electronics and Opto-Electronics Research Department, Nokia Bell Labs, about 'Progress in Design and Integration for Near-THz Wireless Communications Systems'. The EuMIC Prize Committee will award the EuMIC Prize for the best conference paper sponsored by the Eindhoven University of Technology and the two EuMIC Young Engineer Prizes sponsored by Huawei Italy. The GAAS® Association Tom Brazil Fellowship Award will be celebrated. It is an essay competition in which young engineers provide their ideas on the role of microwaves in addressing global challenges.

We are incredibly grateful for all the efforts from our panel of reviewers and TPC members. We also want to express our gratitude to all the authors, workshop organizers, and short-course leaders for their submissions and proposals, which ensured an event of the highest quality. A special thanks goes to past EuMIC teams for their incredibly generous support and to the EuMC, EuRAD, and EuMW2025 teams for discussions, sharing ideas, and helping in the local and practical organisation of the week.

We hope you enjoy days filled with fruitful discussions, knowledge exchange, and networking. We look forward to welcoming you personally in Utrecht for an exciting EuMIC conference.

MARION MATTERS-KAMMERER
EuMIC Chair
Eindhoven University of Technology, The Netherlands



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KU Leuven, Belgium

PIYUSH KAUL
EuMIC TPC Co-Chair
Eindhoven University of Technology, The Netherlands

Welcome to the 55th European Microwave Conference, EuMC 2025

It is our distinct honor and joy to welcome you to the 55th edition of the European Microwave Conference (EuMC2025)! This year, the more than 100-year-old Royal Jaarbeurs of Utrecht will be thé place for experts over the entire spectrum of microwave equipment and applications to meet and send **Waves of Innovation** into the microwave scientific community.

As the feature event of the prestigious European Microwave Week, EuMC2025 will continue its tradition of being the largest European forum dedicated to the RF area in its broadest scope. This year we received over 470 submissions from more than 40 countries, with approximately 330 papers being accepted for the 60 conference sessions. The conference program will accommodate inspiring contributions encompassing the theory, design and validation of components and systems at all levels of RF technology – microwaves, millimeter-waves and (sub-)terahertz ranges, microwave photonics included. To further foster the practical applicability of the communicated achievements, several sessions will benefit from engaging industrial keynote talks from leading European companies. The conference's opening and closing plenary sessions will put the spotlight on critical development vectors, as envisioned by two world-class keynote lectures. Expect to experience unexpected takes on spearheads in the wider realm of microwave and, indeed, electrical engineering! And, as always, EuMC2025 will reward excellence via its Best Paper Award and two Young Engineer Prizes.

The **Waves of Innovation** cannot be decoupled from a responsible and lucid approach to our planet's resources. To this end, EuMC2025 will have as center-point and guiding line **sustainability**, the emphasis being on the global environmental impact of RF technologies and applications. This theme will be discussed in full-day program-lines, hosting panel, regular and special sessions assembling exclusive contributions from leading researchers and industrial representatives in the field.

The broad scientific and technologic offering of the conference also comprises a wide spectrum of workshops, short courses and special sessions addressing both specialized topics and subjects of general concern, such as identifying effective educational strategies in the realm of electrical engineering.

EuMW2025 will be the perfect place for directly interacting with your peers and with industrial and governmental entities, thus establishing effective partnerships and forging lasting scientific relations. To foster that, this edition's main innovation is the **EuMW Experience**, an entire-evening event scheduled on September 24 in the Utrecht Railway Museum – the **Experience** is envisaged as a platform for lively and friendly interactions between as many as possible of the Week's participants, against the backdrop of beautiful railway travelling landmarks.

A successful event is the result of a community effort. We then extend our entire gratitude to all submitting authors, to our expert reviewers, to our dedicated Technical Program Committee members, and to the volunteers whose efforts have made this conference possible.

We, the EuMC2025 core team, express our hope that, together, contributors, delegates, exhibition visitors, and volunteers will jointly make this conference a memorable event, both through its scientific outcomes and its human, personal enrichment. May the Waves of Innovation sustainably mark EuMC2025, Utrecht, the Netherlands, as a true turning point in the current and future roadmap of microwave developments.

IOAN LAGER
EuMC Chair
Delft University of Technology, The Netherlands

MATTHIAS GEISSLER
EuMC Co-Chair
IMST GMBH, Germany

ANN FRANCHOIS
EuMC TPC Chair
Ghent University, Belgium

KAMIL YAVUZ KAPUSUZ
EuMC TPC Co-Chair
Ghent University-IMEC, Belgium

Welcome to the 22nd European Radar Conference, EuRAD 2025

Dear colleagues from the international radar community, on behalf of the organizing committee, it is our pleasure to welcome you to the 22nd edition of the European Radar Conference (EuRAD 2025)! This year's event takes place from September 24 to 26 in the beautiful city of Utrecht, The Netherlands. We are looking forward to an exciting gathering of radar experts, innovators, and industry leaders. EuRAD 2025 continues to be a premier forum for sharing and discussing the latest advances in radar technology–spanning applications in automotive, defence, security, space, medical, and civil domains. Expect cutting-edge research, inspiring discussions, and great networking opportunities.

We are proud to host four outstanding keynote speakers who will highlight some of the most impactful developments in radar technology. Wednesday's opening session puts the spotlight on industrial innovation, especially in automotive and defence radar. Mark Steigemann, Chief Architect Radar Systems & Senior Fellow at NXP, will present "High Resolution Radar for Next-Level Autonomous Driving! Will AI at the Edge Change the Way of Thinking?", exploring the powerful combination of AI and high-resolution radar in the future of autonomous vehicles. Simon van den Berg, Technical Innovation Director at Thales Nederland, will talk about "Evolution of AESA Technologies and Trends in Military Phased Array Radar Systems", offering insights into recent breakthroughs in defence radar systems.

Friday's closing session will shift the focus to how major agencies are shaping radar R&D in both the United States and Europe. Frank Robey, Program Manager at DARPA, will present "The DARPA Approach to Radar Innovation", discussing advanced radar research from the U.S. Department of Defense. Salvatore D'Addio, Head of the RF Payloads and Technology Division at ESA, will present "Technology Developments and R&D Activities at the European Space Agency for Future Spaceborne Radars and RF Instruments", sharing ESA's exciting work on radar technologies for upcoming space missions. This closing session, held just before lunch, wraps up with the EuRAD Prize for best paper, along with two Young Engineer Prizes to recognize outstanding early-career contributions.
Just like in previous editions, EuRAD 2025 will feature two specialized forums. The Defence, Security and Space (DSS) Forum will focus on Space Weather this year–examining how it impacts radar operations and what technological responses are emerging. The Automotive Forum will cover the latest innovations in radar for autonomous vehicles and smart mobility systems.

Of course, it is not all work–on Thursday, September 25, we invite you to unwind at our social event: AperiRadar! Hosted at the conference venue right after the technical sessions until 8:30 p.m., it is the perfect chance to relax, connect with fellow attendees, and exchange ideas in an informal setting. With great food, drinks, and live music, it promises to be a memorable evening.

We are also proud to highlight that EuRAD 2025 is committed to sustainability. From greener logistics to thoughtful choices in event planning, this year's conference actively embraces a more environmentally friendly approach and content–because innovation and responsibility go hand in hand.

With 143 paper submissions and a rigorous peer-review process by the Technical Program Committee, we have selected 103 papers to be featured across 18 oral and focused sessions and two poster sessions. Topics will range from automotive radar and AI applications to mm-wave imaging and SAR techniques. Five workshops and short courses will round out the program, covering timely areas such as joint sensing and communication, multistatic radar, and advanced automotive radar processing.

A program this rich and diverse is only possible thanks to the dedication of many. We sincerely thank all authors, reviewers, and contributors who have made EuRAD 2025 what it is. We are confident it will be an inspiring, collaborative, and enjoyable event–and we look forward to welcoming you in Utrecht this September!

LAURA ANITORI
EuRAD Chair
CNIT, Italy

KOSTAS DORIS
EuRAD Co-Chair
NXP Semiconductors, The Netherlands

FRANCESCO FIORANELLI
EuRAD TPC Chair
Delft University of Technology, The Netherlands

RONNY HARMANNY
EuRAD TPC Chair
Thales Nederland B.V., The Netherlands

Welcome from the General TPC Chairs

Dear colleagues and friends,

It is with great pleasure that we welcome you to the 28th edition of the European Microwave Week (EuMW 2025), taking place from September 21 to 26, 2025, in the heart of the Netherlands, the historic and vibrant city of Utrecht. Nestled among centuries-old canals and overlooked by the iconic Dom Tower, Utrecht blends rich heritage with dynamic modernity, serving as an ideal setting for this premier gathering of the global microwave community.

The theme for this year, "Waves of Innovation," celebrates the transformative journey of our field, where cutting-edge research in microwave and wireless systems continues to advance communications, sensing, quantum technologies, radar, and beyond, while reshaping technology and serving the evolving needs of society.

The technical programme reflects the dedication of a passionate community and saw an impressive 753 paper submissions, each rigorously evaluated through nearly 6000 reviews, ensuring the highest standards of scholarly excellence. These efforts resulted in 409 oral presentations and 85 poster contributions, structured into 88 sessions, including focused and special sessions spanning the full breadth of our discipline.

The programme addresses foundational topics as well as emerging areas poised to redefine the future. Sustainability and environmentally friendly ICT are emphasized, showcasing innovative strategies for energy-efficient RF technologies. Collaborations with key partners have further enriched the programme, including joint sessions with APMC, EurAAP, and, for the first time, ESA. These sessions explore critical themes such as space microwave technologies, mm-wave and THz circuits, and advanced antenna systems, reinforcing the interdisciplinary nature of our field.

Beyond technical content, EuMW 2025 offers a wide range of opportunities for professional development and community building. The international exhibition, one of the largest in Europe for RF and microwaves, facilitates hands-on interaction and industry networking. Workshops, short courses, and training sessions provide practical insights into emerging tools and techniques.

We have placed special focus on fostering new talent and celebrating excellence. Events like the Student Career Event and Women in Microwaves promote inclusion and growth. Awards such as the Young Engineer Prizes, Tom Brazil Essay Competition on Sustainability, and best paper recognitions highlight our shared commitment to innovation and impact.

We extend our heartfelt thanks to all who made this event possible. The Technical Programme Committees–led by Ann Franchois and Kamil Yavuz Kapusuz (EuMC), Patrick Reynaert and Piyush Kaul (EuMIC), and Ronny Harmanny and Francesco Fioranelli (EuRAD)–along with 118 committee members, 66 subcommittee leaders, and 574 reviewers, shaped an exceptional programme and community experience.

Our gratitude also goes to EuMW 2025 General Chair Mark Bentum, Operational Officer David Prinsloo, and the local organizing committee for ensuring the highest standards in every detail. We warmly thank the EuMW Officers, the EuMA Board of Directors, and the Paper Management Team–Marc van Heijningen, Cristina Andrei, Megha Krishnaji Rao–and the Converia staff for their dedication and seamless coordination.

We also acknowledge with appreciation Guillaume Ducournau and Aurelian Crunteanu, organizers of the previous EuMW, whose insights and support helped us build on the legacy of excellence that defines this event.

We hope EuMW 2025 will be both intellectually rewarding and personally meaningful. Let us continue to connect Europe and the world through waves, advancing our field and inspiring the innovations of tomorrow.

We look forward to sharing this unforgettable week with you in Utrecht.

DIEGO CARATELLI
EuMW General TPC Chair
The Antenna Company,
The Netherlands

JACCO DE WIT
EuMW General TPC Co-Chair
TNO, The Netherlands

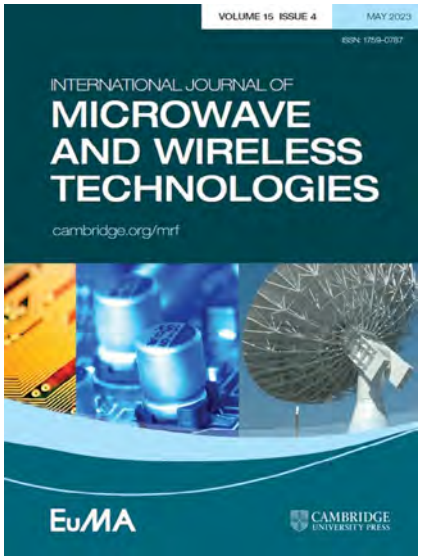
International Journal of Microwave and Wireless Technologies: EuMW2025 Special Issue

The International Journal of Microwave and Wireless Technologies was created in 2009 by the European Microwave Association (EuMA) and Cambridge University Press for the benefit of the microwave research community in Europe and overseas.

The journal is published ten times a year. It allows academic and industrial researchers to promote their work and stay connected with the most recent developments in microwave and RF technology. The journal is referenced in databases such as Scopus and Google Scholar and is indexed in the Thomson Reuters Web of Science. Following the success of previous microwave weeks, the journal will again publish a special issue dedicated to European Microwave Week 2025.

The authors of several highly ranked papers presented at the conferences will be invited to submit an extended version for publication in the journal. The special issue will be guest edited by Ann Franchois, TPC chair of EuMC 2025, Patrick Reynaert, TPC chair of EuMIC 2025, and Ronny Harmanny, TPC chair of EuRAD 2025.

Accepted papers will be published online at https://www.cambridge.org/core/journals/international-journal-of-microwave-and-wireless-technologies and can be referenced using their DOI (Digital Object Identifier). Once all submissions are received, the articles will be collected into a dedicated Special Issue.



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EuMA Innovation Team & Social Media Editor

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The Netherlands

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The Netherlands

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EuMC TPC Co-Chair
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Eindhoven University of Technology,
The Netherlands

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EuMIC Co-Chair
NXP Semiconductors, The Netherlands

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EuMIC TPC Chair
KU Leuven, Belgium

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EuMIC TPC Co-Chair
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The Netherlands

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EuRAD Chair
CNIT, Italy

KOSTAS DORIS
EuRAD Co-Chair & Automotive Forum Co-Chair
NXP Semiconductors, The Netherlands

FRANCESCO FIORANELLI
EuRAD TPC Chair
Delft University of Technology, The Netherlands

RONNY HARMANNY
EuRAD TPC Chair
Thales Nederland B.V., The Netherlands

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Automotive Forum Chair
Karlsruhe Institute of Technology, Germany

THOMAS ZWICK
Automotive Forum Co-Chair
Karlsruhe Institute of Technology, Germany

MARTIN KUNERT
Automotive Forum Co-Chair
Radar Expert, Germany

BART SMOLDERS
6G Forum Chair
Eindhoven University of Technology,
The Netherlands

ANDRE BOS
Defence, Security and Space Forum Chair
S&T, The Netherlands

PATRICK HINDLE
Defence, Security and Space Forum
Microwave Journal, Great Britain

ANDREA NETO
Awards Committee Chair
Delft University of Technology, The Netherlands

ELMINE MEYER
Workshop, Short Course, Focus Session Chair
Eindhoven University of Technology,
The Netherlands

GABRIELE FEDERICO
Workshop, Short Course, Focus Session Chair
Eindhoven University of Technology,
The Netherlands

SIMON ROMMEL
Student Activities Chair
Eindhoven University of Technology,
The Netherlands

PAOLA ESCOBARI
Student Activities Chair
Eindhoven University of Technology,
The Netherlands

MARK OUDE ALINK
Poster Chair & Visa and Grants Chair
University of Twente, The Netherlands

ANOUK HUBRECHSEN
WIM Chair
Antennex B.V., The Netherlands

DANIELLE VAN DER HAGEN
Local Arrangement Chair
Eindhoven University of Technology,
The Netherlands

YUQING JIAO
Visa and Grants Co-Chair
Eindhoven University of Technology,
The Netherlands

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Student Volunteers Chair
Eindhoven University of Technology,
The Netherlands

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Student Volunteers Co-Chair
Eindhoven University of Technology,
The Netherlands

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Party Chair
Eindhoven University of Technology,
The Netherlands

LENNY HOEK
EuMW Experience Officer
Delft University of Technology, The Netherlands

CRISTINA YEPES
Local Social Media Chair
TNO, The Netherlands

DARYNA PESINA
EuMA Innovation Team and Social-Media Editor
Chalmers University of Technology, Sweden

MICHEL ZOGHOB
Event Director
Horizon House, United Kingdom

JULIE MILLS
Event Manager
Horizon House, United Kingdom

SALLY GARLAND
Hotels and Partner Programme
Connex Hotels and Events, United Kingdom

FRANK VAN DEN BOGAART
EuMA President
EuMA, Belgium

ANNEMIE VAN NIEUWERBURGH
EuMA Headquarters Assistant
EuMA, Belgium

DANIELLE VANHOENACKER
EuMA Treasurer
EuMA, Belgium

PAOLO COLANTONIO
EuMA Officer
Università di Roma Tor Vergata, Italy

MARC VAN HEIJNINGEN
Software Officer
TNO, The Netherlands

CRISTINA ANDREI
Software Officer
Brandenburg University of Technology, Germany

MEGHA KRISHNAJI RAO
Software Officer and EuMA Innovation Team
Ferdinand-Braun-Institut gGmbH (FBH), Germany

2024 European Microwave Week in Paris Best Paper Prizes: EuMC

CONFERENCE PRIZE

Authors
R.J. Bootsman, D.P.N. Mul, M. Beikmirza, O. El Boustani, D. Maassen, B. van Velzen, M. Rousstia, R. Koster, J.R. Gajadharsing, T. Fritzsch, Y. Shen, M.S. Alavi and L.C.N. de Vreede
ELCA, Delft University of Technology (The Netherlands)

Title
A Switch-Bank Approach for High-Power, High-Resolution, Fully-Digital Transmitters

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YOUNG ENGINEER PRIZE

Authors
Leonhard Hahn, Lukas Bürk, Yu Zhu, Christian Carlowitz, Gerald Gold, Frank Ellinger and Martin Vossiek
Friedrich-Alexander Universität Erlangen-Nürnberg (Germany)

Title
Quasi-Optical Directional Coupler Based on 3D-Printed Dielectric Image Lines for sub-THz Applications

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YOUNG ENGINEER PRIZE

Authors
Veronika Kienle, Mauro Ettorre, Olivier de Sagazan, Ronan Sauleau, Christian Waldschmidt, Tobias Chaloun
Ulm University, Institute of Microwave Engineering (Germany)

Title
Low-Loss Frequency Selective Surface for Sub-Millimeter Wave Radiometer Applications

Sponsors – THALES France

THALES FRANCE

2024 European Microwave Week in Paris Best Paper Prizes: EuRAD

CONFERENCE PRIZE

Authors
Rossen Michev, Juergen Hasch, Carsten Naber, David Werbunat, Nora Hepp, Christian Waldschmidt
Robert Bosch GmbH (Germany)

Title
A Compact 77 GHz 4x4 MIMO Stepped Frequency OFDM Radar Demonstrator

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THALES THALES NEDERLAND B.V.

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Authors
Marius Brinkmann, Matthias M. Saurer, Gerhard F. Hamberger, Thomas F. Eibert
Rohde & Schwarz GmbH & Co. KG (Germany)

Title
Sidelobe Suppression in Multistatic Radar Imaging Using Cyclic Richardson-Lucy Deconvolutions

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Authors
Max Heidbrink, Oliver Sura, Vinoth Kumar Rangaraj, Marc Reinecke, Marcel Hoffmann, Martin Vossiek
Institute of Microwaves and Photonics (LHFT),
Friedrich-Alexander-Universität Erlangen-Nürnberg(Germany)

Title
Concept for Automatic Annotation of Automotive Radar Data Using AI-Segmented Camera and Lidar Reference Data

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HENSOLDT Detect and Protect.

2024 European Microwave Week in Paris Best Paper Prizes: EuMIC

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Authors
Filippo Ciabattini, Sara Hamzeloui, Akshay M. Arabhavi, Mojtaba Ebrahimi, Olivier Ostinelli and Colombo R. Bolognesi
ETH- ZURICH (Switzerland)

Title
G-Band Large-Signal Characterization of InP/GaAsSb DHBTs with Record 38 % Power Added Efficiency at 170 GHz

Sponsors – Macom

YOUNG ENGINEER PRIZE

Authors
Manuel Wittlinger, Markus Grözing, Manfred Berroth, Georg Rademacher
Institute of Electrical and Optical Communications, University of Stuttgart (Germany)

Title
A Frequency-Agile Digital-to-RF Power Amplifier in 22 nm FD-SOI CMOS Technology

Sponsors – qorvo, GAAS

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Authors
Göksu Kaval, Gregor Lasser, Marcus Gavell, Chirstian Fager
Gotmic AB (Sweden)

Title
A 100-114 GHz GaAs MMIC Power Amplifier With Fully Integrated Dynamic Gate Bias Control for Linearization and Efficiency Enhancement

Sponsors – soitec, GAAS

EuMA Roberto Sorrentino Prize

THIS ANNUAL AWARD RECOGNIZES AN OUTSTANDING YOUNG PROFESSIONAL WHO IS A EUMA MEMBER WHO HAS DISTINGUISHED TECHNICAL ACHIEVEMENTS WITHIN THE MICROWAVE FIELDS OF INTEREST

2025 RECIPIENT: SIMONA DI MEO

Simona Di Meo exemplifies scientific excellence, leadership, commitment to innovation and is very promotional toward young professionals. She received the M.Sc. degree (cum laude) in electronic engineering and the Ph.D. degree in electronics and computer science from the University of Pavia, Pavia, Italy, in 2016 and 2020, respectively, where she is currently an assistant professor in the Microwave Lab. Simona demonstrates unwavering dedication to biomedical research, with a strong focus on diagnostic microwave systems. In that area, she focusses on dielectric characterization of biological tissue over a wide frequency range, on numerical feasibility studies of millimeter-wave imaging systems for detecting non-superficial tumors, on developing tissue-mimicking phantoms and on the design and implementation of imaging hardware for realistic and controlled phantom-based experiments.

Next to her scientific activities, Simona Di Meo's already impressive curriculum vitae stands out particularly by her biomedical education activities, by her dedication to ancillary academic activities, such as setting up the brand-new Doctoral School ('Microwaves for emerging medical technologies') within EuMA's EuMW 2022, and by her vast scientific editorial activities, including amongst many others being Associate Editor of the journal 'Bioelectromagnetics.'

The Roberto Sorrentino Prize, named in his remembrance, has been initiated by Linda Di Carlo Sorrentino in cooperation with RF Microtech, the Italian EM Society (SIEm) and EuMA. It recognizes an outstanding young professional who has distinguished technical achievements (not on a single paper) within the microwave field. This prize focuses on the individual rather than on specific achievements and would preferably be in yearly alternation between university and industry. The annual prize comprises a certificate, a medal and a financial award of € 4,000, contributed by Mrs. Linda Di Carlo Sorrentino, RF Microtech, SIEm, and EuMA.

EuMA Distinguished Service Award

THE DISTINGUISHED SERVICE AWARD WAS ESTABLISHED IN 2004 TO RECOGNIZE AN INDIVIDUAL "WHO HAS GIVEN OUTSTANDING SERVICE FOR THE BENEFIT OF THE EUROPEAN MICROWAVE COMMUNITY"

2025 RECIPIENT: DANIELLE VANHOENACKER-JANVIER

Prof. Danielle Vanhoenacker-Janvier is best known for her work on propagation modelling and the interaction with communication modulation schemes. For more than 30 years, her main activity domain was the study and modeling of atmospheric effects on propagation of electromagnetic waves from 100 MHz to 100 GHz for radar, satellite and cellular communication. She was responsible for two radio-wave propagation measurement campaigns (with Olympus and Alphasat satellites). She has a special interest in propagation above 10 GHz, propagation through a turbulent troposphere and in the use of numerical weather prediction software for the simulation of atmospheric effects, spinning off to radar cross section of airplane wake vortices and the evaluation of their Doppler spectra. Her signal processing activities focused on Fade Mitigation Techniques and Space-Time Coding.

Prof. Vanhoenacker-Janvier received the M.Sc. degree in electrical engineering and the Ph.D. degree in Applied Sciences from the Université Catholique de Louvain (UCLouvain), Louvain-la-Neuve, Belgium, in 1978 and 1987, respectively. Since 2000, she has been a Professor with UCLouvain, where she has been a Full Professor, since 2007. She was the Head of the Microwave Laboratory, Louvain-la-Neuve, from 2001 to 2006, where she founded the activities on the Design of Microwave Integrated Circuits on Silicon-on-Insulator, and was in charge of Student Affairs at the Louvain School of Engineering, Louvain-la-Neuve, from 2001 to 2011. She has been the Chair of the Doctoral Commission, since 2015, and retired from her alma mater in 2020. She has authored more than 200 technical papers and conference publications, and was coauthor of one book.

Less visible are her long-term activities for and within the EuMA that span more than 25 years. She was a reviewer for the European Microwave Conference from 1990-2018, member of its Management Committee from 1996 to 1999, secretary of the first "European Microwave Week", with 1000 participants, in 1998 in Amsterdam, chair of the European Microwave Conference in 2010 in Paris, vice-Secretary Treasurer of the EuMA from 2006 to 2015 and finally Secretary General of the European Microwave Association from 2016 to 30 June 2025. In that last capacity, she took care of the financial details and position of the EuMA and entirely reformed the Association's bookkeeping system to make it future-proof. This enormous amount of work was always done diligently, accurately and friendly, serving our entire community; a Distinguished Service avant la lettre.

EuMA Outstanding Career Award

THE OUTSTANDING CAREER AWARD WAS ESTABLISHED IN 2008, TO RECOGNIZE AN INDIVIDUAL "WHOSE CAREER HAS EXEMPLIFIED OUTSTANDING ACHIEVEMENTS IN THE FIELD OF MICROWAVES"

2025 RECIPIENT: BUMMAN KIM

Professor Bumman Kim is one of the giants of the microwave domain, who has made large and lasting contributions to microwave power amplifiers. Prof. Kim entirely restructured the Doherty amplifier configuration and created the modern Doherty configuration in 2000, often referred to as the offset line technique. The Doherty concept was already invented using vacuum tubes in 1936, but not applicable to microwave amplification because of its low efficiency at high frequencies and its relatively poor linearity. He pioneered the linear power operation of the modern microwave Doherty amplifiers, later adopted in the vast majority of base-station microwave amplifiers.
Earlier in his career, Prof. Kim already proposed and demonstrated the first microwave power amplification utilizing heterojunction bipolar transistor (HBT); nowadays, the HBT is the most popular device for microwave power amplifiers of mobile handsets. In addition, he demonstrated the first fully-integrated MMIC operation at mm-wave frequencies in 1984 and the first semiconductor-based oscillator operation over 100 GHz, making significant advancement of the MMIC technology toward mm-wave applications
As the 5G mobile communication system emerged in the early 2010's, his group developed a highly efficient linear power amplifier at Ka-band using 28-nm bulk CMOS technology, leveraging his earlier work on GaAs and CMOS PAs. The deep class-AB biased CMOS PA with appropriate harmonic control circuits provided a linear operation close to the saturated power realizing high efficiency and high linearity. This CMOS power amplifier delivered the performance required by the 5G system specification for the first time.
Prof. Kim holds a B.Sc. from Seoul National University, an M.Sc. from the University of Texas at Austin, and a Ph.D. in Electrical Engineering from Carnegie Mellon University, Pittsburgh, PA. He worked in industrial roles, for Texas Instruments as Senior Member of Technical Staff and POSTECH at Korea as a professor, a position which lasted 28 years, supervising 58 Ph.D. students. His efforts in mentoring students and young engineers are widely praised. Apart from his employment record, he was active in the Korean academic institutions, notably in the Korean Academy of Science and Technology and in the National Academy of Engineering of Korea, and the international microwave scene, including the Adcom of MTT society, the EuMA General Assembly, and the APMC Assembly.

His career spans four decades of outstanding achievements on the intersection between microwave technology and microwave applications. His contributions to microwave power amplifiers have changed the course of technology, and were clearly not lucky shots, as they were successively based on different circuit concepts and involving multiple technologies, showing time and time again the road ahead to the entire community.

Tom Brazil Fellowship Award Student Essay Competition (by the GAAS® Association)

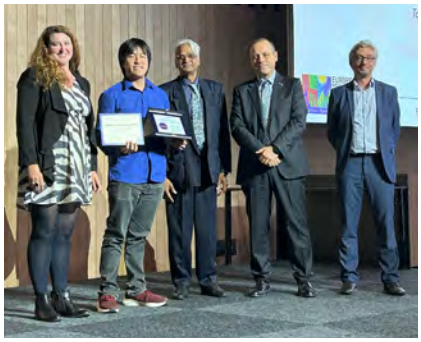
Microwaves in Supporting Global Challenges

In the framework of the EuMIC 2024, the Tom Brazil Fellowship Award Student Essay Competition was organized to promote the ideas of students in the area of microwave engineering. The participating students were requested to summarize their view on "Microwaves in supporting global challenges". Over 100 working groups were contacted directly by email and informed about the possibilities of the prize. In 2024 a two-stage submission/review process was introduced with oral presentations by the 3 finalists during the conference to the selection committee. In this essay competition, we remind that we are looking for a summary of the role of RF/Microwaves/mmWave in telecommunications and other fields which have contributed to remote working (especially during the COVID pandemic) and reducing travel/commuting. Also, for enabling developing countries to build sustainable agricultural and other industries that require good communications infrastructure. The use of THz for forecasting catastrophic weather events has also been an essential and ongoing development. Microwave activity can help in reducing carbon footprint: for example, high-efficiency power amplifiers and other components for base station applications, high-efficiency antenna beam steering architectures. We requested creative and original ideas and suggestions on how future microwave-related research work can be best directed in fulfilling actual and forthcoming global challenges.
The 2024 winner essays are available on the EuMA website.

'As humans, we have limited time and energy; do something useful' – Prof. Tom Brazil

2024 Tom Brazil Prizes awardees

1ST PRIZE



Authors
Steven Cheng
University College of Cork (Ireland)

Title
Joint Remote Sensing through Bio-inspired Internet of Fish Towards a Climate Resilient Future

Sponsors – GAAS
(Silver plaque + € 2500)

2ND PRIZE

Authors
Moritz Kalhert
Brandenburg University of Technology (Germany)

Title
Microwave Integrated Circuits in Automotive Sensing and Vehicular Communication for Safer Roads and Efficient Traffic

Sponsors – GAAS
(certificate + 1500 €)

3RD PRIZE

Authors
Kamran Davoodi
University of Rome tor Vergata (Italy)

Title
Enhancing Microwave/mm-Wave Power Amplifier Efficiency: A Key Solution to Global Energy Shortage Challenges

Sponsors – GAAS
(certificate + 1000 €)

International Journal of Microwave and Wireless Technologies: Former Best Paper Prize

The International Journal of Microwave and Wireless Technologies selects one paper per year for the Best Paper Award of the Journal and announces it in the next year. EuMA grants an amount of 1,000 Euro for this award. In the following, the list of the former recipients of the prizes:

1. **Marco Dietz, Andreas Bauch, Klaus Aufinger, Robert Weigel, and Amelie Hagelauer,** "A 1 to 32 GHz broadband multi-octave receiver for monolithic integrated vector network analyzers in SiGe technology," International Journal of Microwave and Wireless Technologies, 2018, 10 (5/6), 717–728.

2. **Golzar Alavi, Sefa Özbek, Mahsa Rasteh, Markus Grözing, Manfred Berroth, Jan Hesselbarth, and Joachim N. Burghartz,** "Toward a flexible and adaptive wireless hub by embedding power amplifier thinned silicon chip and antenna in a polymer foil," International Journal of Microwave and Wireless Technologies, 2019, 11 (5/6), 864–871.

3. **Iulia Dan, Guillaume Ducournau, Shintaro Hisatake, Pascal Szriftgiser, Ralf-Peter Braun, and Ingmar Kallfass,** "A superheterodyne 300 GHz wireless link for ultrafast terahertz communication systems," International Journal of Microwave and Wireless Technologies, 2020, 12 (7), 578–587.

4. **Philipp Ritter,** "Toward a fully integrated automotive radar system-on-chip in 22 nm FD-SOI CMOS," International Journal of Microwave and Wireless Technologies, 2021, 13 (6), 523–531.

5. **Sofian Hamid, Dirk Heberling, Manuela Junghähnel, Thomas Preussner, Patrick Grezki, Ludwig Pongratz, Cristian Hördemann, Arnold Gillner,** "Development of a milimeter-wave transparent antenna inside a headlamp for automotive radar application," International Journal of Microwave and Wireless Technologies. 2022, 14(6), 677-688.

6. **Petr Kadera, Jesús Sánchez-Pastor, Lisa Schmitt, Martin Schüßler, Rolf Jakoby, Martin Hoffmann, Alejandro Jiménez-Sáez, and Jaroslav Lacik,** "Sub-THz Luneburg lens enabled wide-angle frequency-coded identification tag for passive indoor self-localization," International Journal of Microwave and Wireless Technologies. 2023, 15(1), 59–73.

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M Azar Maalouf · Giuseppe Macchiarella · Stefano Maddio · María J. Madero-Ayora · Asher Madjar · Simon J. Mahon · Nathalie Malbert · Robert Malmqvist · Giovanni Mangraviti · Raafat R. Mansour · Mauro Marchetti · Philipp Markiton · David Marpaung · Pascal Marquardt · Paulo Marques · Jon Martens · Audrey Martin · Ferran Martín · Teresa M. Martín-Guerrero · Baudouin Martineau · Jorge Daniel Martínez Pérez · Marta Martínez-Vázquez · Edson Martinod · Łukasz Maślikowski · Marion K. Matters-Kammerer · Holger Maune · Markus Mayer · Agnese Mazzinghi · Francisco Medina · Francisco Mesa · Elmine Meyer · Filipe Miguel Barradas · Filipe Miguel Barradas · Konstantinos Mimis · Dariush Mirshekar-Syahkal · Jozef Modelski · Carsten Monka-Ewe · Stefania Monni · Sébastien Mons · Giuseppina Monti · Gabriel Montoro · Jeong-Sun Moon · Dominique Morche · Mathieu Moreau · Antonio Morini · Kevin Morris · Michal Mrozowski · Steve Wai Yin Mung · Niko Münzenrieder · Hiroshi Murata

N Kevin Nadaud · Adam Narbudowicz · Nasrin Nasr Esfahani · Ilaria Nasso · Miguel Navarro-Cía · Irina Nefedova · Renato Negra · Andrea Neto · Herman Jalli Ng · Edouard Ngoya · Nhu-Huan Nguyen · Dirk Nüßler

O Joachim Oberhammer · Roland Oechslin · Dragan Olcan · Matteo Oldoni · Arnaldo Oliveira · Karl Erik Olsen · Troy Olsson · Danilo Orlando · Alicja Ossowska · Jeroen Overdevest

P Fabio Padovan · Luca Pallotta · Gustavo Pamplona Rehder · Giacomo Paolini · Apostolos Pappas · Youngjin Park · Bertrand Parvais · Olivier Pascal · Romain Pascaud · Marco Pasian · Daniel Pasquet · Marco Passafiume · Debora Pastina · Mario Pauli · José Carlos Pedro · Erika Pellegrino · Luca Pelliccia · Kang-Chun Peng · André Pérennec · Aurélien Périgaud · Luca Perregrini · Christian Person · Olivia Peytral-Rieu · Gia Ngoc Phung · Ilona Piekarz · Jean-Francois Pintos · Anum Pirkani · Marco Pirola · Davy Pissoort · Emmanuel Pistono · Emanuele Piuzzi · Florence Podevin · Martin Podt · Nils Pohl · Ramesh Kumar Pokharel · Zoya Popović · Emily Porter · Benjamin Potelon · Arnaud Pothier · David S. Prinsloo · Marina Proske · Dimitra Psychogiou · Vincent Puyal

Q Roberto Quaglia · Rüdiger Quay · Abdul Quddious · Cédric Quendo · Oscar Quevedo-Teruel · Valdrin Qunaj

R Antonio Raffo · Antti Räisänen · P. Vigneshwara Raja · Rodica Ramer · Franco Ramirez · Pekka Rantakari · Satish Ravindran · Anusha Ravish Suvarna · Torsten Reuschel · Patrick Reynaert · Elodie Richalot · Jae-Sung Rieh · Matthew Ritchie · Philipp Ritter · Eric Rius · Hendrik Rogier · Simon Rommel · Massimo Rosamilia · Luke Rosenberg · Uwe Rosenberg · Hélène Roussel · Mayazzurra Ruggiano · Jorge A. Ruiz-Cruz · Amelia Runio Bretones · Pedro Rynkiewicz

S Giulia Sacco · Amr Safwat · Kamal Samanta · Piotr Samczyński · Atsushi Sanada · David A. Sanchez-Hernandez · Miguel Sanchez-Soriano · Philip Sanders · Paul Sangare · Alberto Santarelli · Fabrizio Santi · Scott Schafer · Patrick Scheele · Johann Christoph Scheytt · Lorenz-Peter Schmidt · Benjamin Schoch · Dominique Schreurs · Alexander Schuchinsky · Patrick Schuh · Christian Schulz · Hermann Schumacher · Fabio Sebastiano · Daniel Segovia-Vargas · Padmanava Sen · Pascale Sevigny · Xiaobang Shang · Hasan Sharifi · Darshan Shetty · Oksana Shramkova · Uwe Siart · Manuel Sierra Castañer · Hjalti H. Sigmarsson · Alexandre Siligaris · Lorenzo Silvestri · Yoke Leen Sit · Anja Skrivervik · Robin Sloan · Richard Snyder · Valentyn Solomko · Jacques Sombrin · Raphaël SOMMET · Ho-Jin Song · Vito Sorianello · Jakub Sorocki · Domenico Spina · Andreas Springer · Jan Stake · Andreas Stelzer · Almudena Suarez Rodriguez · Noriharu Suematsu · Erwin Suijker · Safumi Suzuki · Oleksiy Sydoruk · Sultan Abdul Kader Syed Mohamed

T Alexandru Takacs · Junwu Tao · Luciano Tarricone · Jean-Guy Tartarin · Noriaka Tawa · Manos M. Tentzeris · Guilherme Theis · Didier Théron · Arno Thielens · Reiner S. Thomä · Fabian Thome · Manfred Thumm · Jordi Verdú Tirado · Diane Titz · Vittorio Tornielli di Crestvolant · Éric Tournier · Ichihiko Toyoda · Nikolaos Tsitsas · Ingrid Ullmann

U Mehmet Ünlü

V Valeria Vadalà · Guido Valerio · Wim van Cappellen · Gijs van der Bent · Rob van der Meer · Marc van Heijningen · Wim van Rossum · Frank E. van Vliet · Guy Vandenbosch · André Vander Vorst · Benjamin Vanhouche · Giorgio Vannini · Andriy Vasylyev · Cicero S. Vaucher · Suresh Venkatesh · Giacomo Venturini · Luca Venturino · Serge Verdeyme · Vojkan Vidojkovic · Valérie Vignéras · Francesca Vipiana · Giuseppe Virone · Huib Visser · Akshay Visweswaran · Giorgio Matteo Vitetta · Michael Vogt · Martin Vossiek · Jan Vrba · Photos Vryonides · Tân-Phu Vuong

W Simon Wagner · Dingyang Wang · Huei Wang · Yi Wang · Gavin Watkins · Simon Watts · Robert Weigel · Nils Weimann · Matthias Weiss · Mareike Wendelmuth · Andreas Wentzel · Lars-Erik Wernersson · Jurjen Westra · Daniel White · Abdulrahman Widaa · Tudor Williams · Withawat Withayachumnankul · Sai-Wai Wong · Steve Hang Wong · Ke Wu

X Pascal Xavier

Y Hady Yacoub · Li Yang · Felix Yanovsky · Alexander Yarovoy · Cristina Yepes · Ming Yu · Sen Yuan · Okan Yurduseven

Z Lyubomir Zegov · Nicolas Zerounian · Jiafeng Zhou · Kang Zhou · Anding Zhu · Simin Zhu · Herbert Zirath · Peter Zwamborn · Thomas Zwick

Travel Information

GETTING TO UTRECHT JAARBEURS

The city of Utrecht is well connected to the European motorway, rail and flight networks. The Jaarbeurs Convention Centre can be accessed through a variety of transportation means. Additional information can be found here: https://www.jaarbeurs.nl/en/bereikbaarheid.

ADDRESS
Jaarbeurs
Jaarbeursplein
3521 AL Utrecht
The Netherlands

BY PLANE
Utrecht is located 40 km south-east of Amsterdam. From Amsterdam Airport Schiphol it can be reached in 30 minutes by a direct train.

BY TRAIN
Utrecht Central Station is the largest train station in The Netherlands. Most Dutch railroad lines have Utrecht as their central point; Utrecht Central Station has over 170,000 travellers daily. In addition, the following international direct trains depart and arrive at Utrecht Central Station:

- City Night Line, Nightjet (several cities in Europe)
- ICE International (Germany and Switzerland)
- Intercity Antwerp/Brussels
- 30 minutes to Amsterdam's Eurostar (Brussels, Paris, Cologne, London)

For more information visit https://www.ns.nl/en or https://www.nsinternational.com/en. The Jaarbeurs is easily accessible from the station by foot (500 meters / 5 minutes).

BY CAR
Jaarbeursplein 6, 3521 AL, Utrecht, The Netherlands. Ample paid parking facilities available - please refer to the map at the back of this booklet.
Alternatively, one can park at 'Transferium Westraven' and travel by public transport for an attractive fee: https://www.parkeren-utrecht.nl/pr/transferium-pr-westraven.

General information on the EuMW

European Microwave Week 2025 takes place in the beautiful city of Utrecht! Bringing industry and academia together, European Microwave Week 2025 is a SIX day event, including THREE cutting edge conferences and ONE exciting trade and technology exhibition featuring leading players from across the globe. EuMW 2025 provides access to the very latest products, research and initiatives in the microwave sector.
It also offers you the opportunity for face-to-face discussions with key players of the microwave technology.

The 28th European Microwave Week combines:
• Three Major Conferences
• Workshops and Short courses, Design and radar schools for students
• Tailored Courses and Seminars for industrialists, academics and researchers
• Largest International Trade Show
• Career Platform, to link young professionals of our community and companies that are searching for talents!

In addition, Exhibitor Workshops and Seminars will be provided by several top organizations with superior expertise in Microwave, RF, Wireless or Radar.

Before the conference

CONFERENCES

Choose from three separate but complementary conferences. Spanning the length of the week, starting from Sunday 21st September, the conferences and workshops are scheduled as follows:

- European Microwave Integrated Circuits Conference (EuMIC): 22 – 23rd September, 2025
- European Microwave Conference (EuMC): 23 – 25th September, 2025
- European Radar Conference (EuRAD): 24 – 26th September, 2025
- The 6G Forum: 22nd September, 2025
- The Automotive Forum: 23rd September, 2025
- In addition, EuMW 2025 will include for the 16th year, the Defense, Security and Space Forum: 24th September, 2025

The conferences encompass a wide range of subject areas including:

- Microwave, Millimetre-wave, and Submillimetre-wave Systems
- Antennas and Propagation
- Wireless Technologies and Fronthaul/Backhaul Applications
- Telecommunication (RF, Microwave, and Optical)
- Integrated Circuits, Semiconductor Materials, and Packaging
- Radar Architectures, Systems, and Subsystems
- Sensors and Remote Sensing Applications
- Testing and Measurement Techniques
- Technologies for Space Applications
- Sustainable Engineering

REGISTRATION

Online registration

Online registration opens in June 2025 and remains open up to and during the event.

→ visit Website

One, two or three conferences?

Delegates can register for one, two or all three of the conferences. Registration at one conference does not allow any access to other conference sessions.

EUMA MEMBERSHIP

One can apply for EuMA membership by ticking the appropriate box during registration for EuMW. Membership is valid for 1 year, starting when the subscription is completed. The discount for the EuMW fees applies immediately. The EuMA membership fee is € 25 for Professionals and € 15 for Students. Members have full e-access to the International Journal of Microwave and Wireless Technologies. The printed version of the Journal is no longer available. EuMA offers a three-year free membership for people residing in NIS and some African countries.

PERSONAL INVITATION
A valid passport will be required for entry into the organising country, in this case the Netherlands. Since EuMW events are held in the European Union, no visa is usually required for travellers with passports from a number of countries, like for instance: European Union, Australia, Brazil, Canada, Japan, Singapore, South Korea or the United States. If you are registering as speaker, delegate or exhibitor and you need a visa, we recommend that you speak with the Dutch Consulate, in your own country. You should organise this at least 3 to 4 months prior to EuMW.

The organisers will be pleased to send a letter of invitation to any exhibitor, conference delegate or speaker requesting it. To request this letter of invitation, please visit https://www.eumw.eu/general-information/passport-visa/.

HOTEL RESERVATION
Horizon House has teamed up with Connex Hotels and Events, our official hotel booking supplier, to offer you the ability to book your accommodation for EuMW at the most competitive rates available. It is very easy to make an immediate hotel booking.

Simply visit their booking page http://www.connexhotelsandevents.com/eumw.html and make your booking, or email sally@connexhotelsandevents.com. You will find a wide range of accommodation to suit every budget. Alternatively, see the hotel booking pages within this programme.

INSURANCE
It is highly recommended that all participants carry the proper travel and health insurance, as the organiser cannot accept any liability for any accidents or injury that occur during or when travelling to the event. Please also insure that personal items are covered for loss, damage or theft either through a personal policy or by a corporate policy. We cannot accept any liability for personal items that are lost, damaged or stolen during or travelling to and from European Microwave Week 2025.

ELECTRICITY
Electricity is supplied at 230 V, 50 Hz.

CREDIT CARDS
All major hotels and most restaurants and shops will accept credit cards. It is advisable to carry other identification as well. Visa and MasterCard are the most widely accepted cards.

During the Conference

BADGES & DELEGATE BAG
Online registrants will automatically be e-mailed their badge barcode and an order confirmation receipt immediately after they pay. All those who have pre-registered should bring their badge barcode and confirmation with them to the conference where they can print out their badge by scanning their barcode at the Fast Track desk onsite. Once you have collected your badge, conference attendees can collect the delegate bag. Conference proceedings will be available through a download link.

Processing will be quick and easy but queues may form at busy times, so please arrange to collect your badge well in advance of your first conference session. The registration area will be located in Hall 8 of the Jaarbeurs Events & Exhibition Centre, as signposted. Those who have not pre-registered can do so on site. There will be onsite registration terminals located within the registration area, where delegates can enter their details and pay immediately by swiping their credit or debit cards through the card readers attached to the terminals.

Alternatively, you can pay at the Cashier desk if you require a printed receipt. If you have any questions regarding registration procedures and payment, please email: eumweek@mcon-mannheim.de

REGISTRATION

On-site registration
During the event, you can also register onsite in Hall 8 from Saturday 20th September 2025 (16:00 – 19:00) and from 08.00 each morning from Sunday 21st 2025 to Friday 26th September 2025.

ON-SITE INFORMATION
The conferences will be held in different rooms over the conference dates. Please refer to the Conference Matrix at the back of this booklet for a detailed overview.

PROCEEDINGS

All papers published for presentation at your chosen conference will be available on a download link. To reduce the carbon footprint, no hard copies of workshop slides will be provided. Slides or handouts will be provided in digital format to registered workshop and short course participants.

EXHIBITION HOURS

The exhibition area will be located in Hall 7 as shown on the Floor Plan in this booklet. As a registered delegate you will have full access to the exhibition area.
The exhibition opening hours are:

- Tuesday 24th September 9:30 – 18:00 (followed by the Welcome Reception)
- Wednesday 25th September 9:30 – 17:30
- Thursday 26th September 9:30 – 16:30

See the 'Exhibitor' page in this booklet for a full listing of the exhibitors (updated at the time this programme is compiled).

SOCIAL EVENTS & PARTNER PROGRAMME

Full details of the social events & dinners that are taking place during EuMW 2025 can be found in the 'Social Events & Partner Programme' section of this programme.

SHOPPING & SIGHTSEEING

Utrecht is a place where 2,000 years of history blend with a vibrant present. The city is home to museums, theaters, and cultural events that make it a lively and inspiring destination. A walk through the historic city streets or the Museum Quarter, with its canals, immediately reveals the charm that sets Utrecht apart.
But Utrecht is more than just a city. Just outside the city, you'll find tranquil nature, historic landmarks, and an open countryside that offers a welcome contrast to the energy of the urban center. Visit https://www.discover-utrecht.com for information on top attractions and tips for your stay.
Alternatively, see the 'Social Events & Partner Programme' section of this booklet for tours and excursions before, during and after EuMW 2025.

WI-FI

Wi-fi is available in the exhibition hall and conference area. Login details can be found within your delegate bag.

After the conference

EUMA KNOWLEDGE CENTRE

The EuMA website has its Knowledge Centre which presently contains over 20,000 papers published under the EuMA umbrella. Full texts are available to EuMA members only, who can make as many copies as they wish, at no extra-cost.

Hotel Booking Form

Rooms are held on a guaranteed basis. For this reason, you are asked to supply a credit card number and full company details. If your travel plans change and you wish to cancel your accommodation, please contact Sally Garland on +44 (0)7775 744193 or email sally@connexhotelsandevents.com to avoid any non-arrival or cancellation charges, as each hotel has a different cancellation policy, full cancellation details will be clearly marked on every booking confirmation. Prepay rates are non-refundable and non-cancelable.

FOR MORE HOTEL OPTIONS AND TO RESERVE YOUR ROOM ONLINE VISIT
http://www.connexhotelsandevents.com/eumw.html
Or complete the booking form below and email to sally@connexhotelsandevents.com

Contact Name _____ Company _____

Address _____

City _____ Post Code _____

Telephone _____ Fax _____

Email _____

Date of Arrival _____ Date of Departure _____

Number of rooms required

Single Room(s) _____ Twin Room(s) _____ Double Room(s) _____

First Choice Hotel _____ Second Choice Hotel _____

Guest Names _____

In order to guarantee the accommodation, please provide us with your credit card details:

Credit Card Number _____ Name on Card _____ Expiry Date ____/____

I authorise that any no show or late cancellation charges, as stipulated in the Connex booking confirmation will be charged to this credit card.

Signed _____ Date _____

Connex Hotels and Events

Tel: +44 (0)7775 744193
Email: sally@connexhotelsandevents.com

HOTEL	TO EuMW	RATES FROM*		
HQ HOTEL **NH HOTEL UTRECHT** Jaarbeursplein 24, 3521 AR Utrecht	3 minute walk	**EuMW**	**€ 209.00**	**B&B**
PARK PLAZA UTRECHT Westplein 50, 3531 BL Utrecht	5 minute walk	Prepay Flexible	€ 253.00 € 280.00	B&B B&B
INNTEL HOTEL UTRECHT CENTRE Smakkelaarshoek 24, 3511 EC Utrecht	8 minute walk	**EuMW**	**€ 229.00**	**B&B**
HAMPTON BY HILTON UTRECHT CENTRAL STATION Boven Catharijnepoort 4, 3511 WN Utrecht	9 minute walk	**EuMW**	**€ 195.00**	**B&B**
THE ANTHONY HOTEL UTRECHT Kanaalstraat 197-199, 3531 CG Utrecht	9 minute walk	Prepay Flexible	€ 237.00 € 256.00	B&B B&B
CROWNE PLAZA UTRECHT - CENTRAL STATION Catharijne Esplanade 13, 3511WK Utrecht	11 minute walk	Prepay Flexible	€ 247.00 € 264.00	B&B B&B
LEONARDO HOTEL UTRECHT CITY CENTER Vredenburg 14, 3511 BA Utrecht	13 minute walk	**EuMW**	**€ 189.00**	**B&B**
BUNK HOTEL UTRECHT Catharijnekade 9, 3511 RT Utrecht	13 minute walk	Prepay Flexible	€ 262.00 € 275.00	B&B B&B
GRAND HOTEL KAREL V Geertebolwerk 1, 3511 XA Utrecht	15 minute walk	**EuMW**	**€ 300.00**	**B&B**
THE HUNFELD HOTEL Mariaplaats 4, 3511 LH Utrecht	15 minute walk	Prepay Flexible	€ 133.00 € 242.00	B&B B&B
HOTEL NH CENTRE UTRECHT Janskerkhof 10, 3512 BL Utrecht	19 minute walk	Prepay Flexible	€ 186.00 € 199.00	B&B B&B
IBIS UTRECHT Bizetlaan 1, 3533 KC Utrecht	20 minute walk	Prepay Flexible	€ 174.00 € 193.00	B&B B&B
MOXY UTRECHT Helling 1, 3523 CB Utrecht		Prepay Flexible	€ 193.00 € 234.00	B&B B&B

NOTES

Prepay: Room rate will be charged at the time of booking to the credit card used to guarantee the reservation, after this the room is non-refundable.

RO: Room rate does not include breakfast; however, breakfast is available at the hotel at an extra cost

Flexible: Flexible = Room can be cancelled or amended up until a few days before arrival, individual policy will be stated on the booking confirmation

B&B: Room rate includes breakfast.

All rates quoted are based on single occupancy and include VAT at the current rate.
8.5% City Tax is extra and will be charged directly by the hotel per night

***** Special Event Rates are only bookable via this form or direct with sally@connexhotelsandevents.com *****

INTERNSHIP AWARD
RESEARCH + INDUSTRY

EARN

4500 €

KICK-START YOUR MICROWAVE CAREER!

This November 2025, the Eu*M*A Innovation Team is launching the eighth edition of the **Eu*M*A Internship Award**. Every year up to **ten awards of 4500€** each will be given to selected **Master** and **PhD students** to spend a period of at least **3 months abroad** in one of the **leading European Microwave Industries, Universities, and Research Institutes** supporting this initiative.

In addition to promote the mobility of students that would like to work in the microwave field across European Institutions, the award will also attract new talents to the hosting organizations and will help creating a larger and stronger community of microwave young professionals.

Master's & PhD students in Engineering, Computer Science, Mathematics or Physics are eligible to apply. **Scan the QR code** to explore full award details and access the application link.

WHO

PhD and Master students with a background in Engineering, Computer Science, Mathematics or Physics

WHAT

Internship abroad of at least 3 Months within 1 year from acceptance notification

WHERE

In leading **European Microwave Industries**, **Universities** and **Research Institutes**

WHEN

Submission deadline **28.11.2025**

APPLICATION PROCEDURE

I. Choose your host & **submit the online form** - by 28.11.2025

II. Hear from EuMA with **pre-acceptance** - 13.1.2026

III. **Set up an interview** with your host - by 13.4.2026

IV. Receive your **final acceptance notice** - by 30.4.2026

CONTACT & DETAILS

Web:
www.eumwa.org

Email:
internships@eumwa.org

PROMOTING EUROPEAN MICROWAVES

EUMA
EUROPEAN MICROWAVE ASSOCIATION

> Innovation TEAM

Responsible Publisher : Daryna Pesina - EuMA aisbl - Rue Louis de Geer 6 - B-1348 Louvain-la-Neuve, Belgium

Welcome to Utrecht!

Utrecht: A City of History and Innovation
Utrecht is a place where 2,000 years of history blend with a vibrant present. The city is home to museums, theaters, and cultural events that make it a lively and inspiring destination. A walk through the historic city streets or the Museum Quarter, with its canals, immediately reveals the charm that sets Utrecht apart. But Utrecht is more than just a city. Just outside the city, you'll find tranquil nature, historic landmarks, and an open countryside that offers a welcome contrast to the energy of the urban center.

Utrecht: Heart of Health
Utrecht region is the center for innovation in health and sustainability. Businesses, governments, and knowledge institutions work together to develop solutions that improve physical, mental, and social well-being. The focus is on creating an environment that supports a healthier way of living.

Sustainability is not just a goal but a necessity. That's why the region prioritizes nature, biodiversity, and climate-conscious choices. Through collaboration, Utrecht contributes to a healthier and more sustainable society, both locally and globally.

Discover Utrecht. Where history and innovation meet.

MORE ...

If you would like more details and costs of the attractions or tours that are not linked directly, please contact Sally Garland at sally@connexhotelsandevents.com.

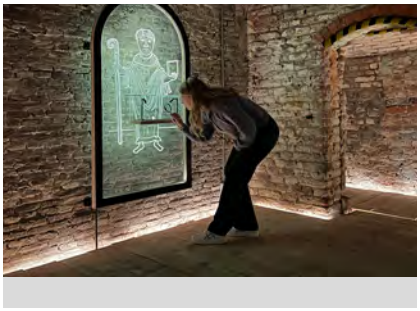
DOM TOWER

As the tallest church tower in the Netherlands, the Dom Tower is not only a striking landmark–it's a symbol of Utrecht's rich history and cultural heritage. Climb its 465 steps, and you'll be rewarded with a breathtaking panorama. From the top, take in the stunning views of Utrecht's historic skyline, winding canals, and lively squares. On a clear day, you can even spot Amsterdam in the distance.

Uncover the fascinating history of the Dom Tower with an expert guide. Learn about its Gothic architecture, the legends woven into its past, and its role in shaping Utrecht's identity. Explore hidden chambers, admire intricate stone carvings, and hear the stories of those who built this monumental structure.

→ visit Website

DOMUNDER



Beneath the historic Dom Square, 2,000 years of Dutch history await discovery. Right in the heart of Utrecht, an underground entrance leads you on a journey through time at DOMunder. You'll explore hidden archaeological treasures beneath the centuries-old square. Through interactive stories and animated films, history literally comes to life before your eyes. Travel back to 45 A.D., when the Romans built Castellum Trajectum, and uncover why Utrecht became the heart of the Netherlands during the Middle Ages. Witness the dramatic moment when a devastating tornado brought down the nave of the Dom Cathedral in 1674.

→ visit Website

DOM CHURCH

Built as a cathedral for the Bishop of Utrecht and dedicated to St. Maarten, the Dom Church is one of the city's most iconic landmarks. With its Gothic architecture and richly decorated tombs, the church's interior leaves a lasting impression.

Whether you join a guided tour to explore its fascinating history or simply step inside for a moment of peace and reflection, the Dom Church welcomes visitors daily.

→ visit Website

DISCOVER THE CITY OF AMERSFOORT

Step back in time and explore the charming medieval city of Amersfoort with an expert guide. Wander through its historic streets, pass through the iconic Koppelpoort–a unique land and water gate–and admire the remarkable Wallhouses built into the old city walls.

Your journey continues at the Mondriaan House, the birthplace of world-renowned artist Piet Mondriaan. Here, you'll discover a permanent exhibition about his life and artistic evolution, along with a full-scale replica of his famous Paris studio.

After the tour, take some time to explore Amersfoort's vibrant shops and cozy restaurants at your own pace. When you're ready, hop on a train back to Utrecht–just a 15-minute ride, with departures six times per hour.

→ visit Website

MIFFY MUSEUM

The house of Miffy (Nijntje) is a museum for all ages where you can discover the world of Dick Bruna's world famous creation: Miffy. In the Atelier Dick Bruna you can find out how he worked.

→ visit Website

DE HAAR CASTLE

Just outside of Utrecht you can find the largest and most opulent castle in the Netherlands, De Haar Castle stands among Europe's finest historic estates. A visit to this breathtaking landmark transports you back to its glamorous past, when it was a playground for the international elite of the early 20th century. Step inside and experience the extraordinary luxury enjoyed by the Van Zuylen family and their illustrious guests, surrounded by priceless art and rich history.

With its majestic towers, ramparts, moats, gates, and drawbridges, De Haar embodies the perfect vision of a medieval fortress. Rising from lush parklands, it is framed by towering trees, historic gardens, and serene ponds–a truly enchanting sight.

→ visit Website

UTRECHT GUIDED TOURS

Utrecht and its surroundings are full of surprises and hidden gems. A city walk is a great way to uncover its secrets. Looking to explore beyond the city? Hop on a bike–the perfect way to get around!

Many different themed tours are offered; the professional guides have in-depth knowledge of the city and region and can share fascinating insights about Utrecht's history, architecture, and must-see spots.

→ visit Website

THE RIETVELD SCHRÖDER HOUSE

In 1924, furniture maker and architect Gerrit Rietveld (1888-1964) realized this unique building. It is the only building built according to the architectural principles of De Stijl. Utrecht is internationally known as the city where Rietveld lived and worked all his life.

→ visit Website

CHEESE EXPERIENCE WOERDEN

Immerse yourself in Dutch cheese heritage through an immersive experience at the Cheese Warehouse in Woerden. This center of taste and flavor is the place where everything about cheese comes together. Learn, watch, taste, and more! The cheese experience in Woerden is the closest you will get to the process of making and storing cheese.

→ visit Website

Thanks to Utrecht Marketing for these images.

Social Events

Welcome Reception

Date: Tuesday 23rd September
Time: 18:30 – 21:30

Location: Beatrix Theater, Mies Bouwman Foyer. Jaarbeursplein 6A, 3521AL Utrecht.

Cost: Free to conference delegates & invited exhibitors.

All registered conference delegates, as well as invited representatives from companies participating in the exhibition are invited to the EuMW2025 Welcome Reception on Tuesday evening at the Jaarbeurs. Delegates will need to bring their badge and exhibitors their invite along with them to gain entrance. The evening will begin with drinks, followed by the General Chairs' handover from EuMW2025, Utrecht, to EuMW2026, London, as well as an address from the Platinum Sponsor, Keysight Technologies. Complimentary umbrellas generously provided by Keysight Technologies will be available in your delegate bag for your walk to the Beatrix Theatre

EuMIC 'Get-Together' Dinner

Date: Monday 22nd Sept.
Time: 18:30-21:30

Location: Paushuize. Kromme Nieuwegracht 49, 3512 HN Utrecht
Cost: Free to EuMIC delegates, get your ticket at the reception

Following the tradition of the European Microwave Integrated Circuits Conference, delegates are invited to enjoy a walking dinner on Monday evening in the charming sixteenth century "Paushuize" (Pope's house) in the historic city centre of Utrecht.

EuMW Delegates Lunch

Date: Monday 22nd - Friday 26th September
Time: 12:30 – 13:50

Location: TransitZone
Cost: Free to EuMW delegates, forums, and WS/SC registered attendees

Enjoy the daily lunches at the conference! During exhibitions days (Tuesday-Thursday) dessert and coffee will be served in the exhibition hall.

AperiRadar [NEW]

Date: Thursday 25th September
Time: 18.00 – 20:30

Location: TransitZone, Jaarbeurs (on-site)
Cost: Free to all EuRAD delegates

Join us for this new event at EuMW2025! An evening aperitivo held at the Jaarbeurs for the delegates of the EuRAD conference. This event is sponsored by Robin Radar.

Automotive Forum Networking Dinner

Date: Tuesday 23rd September
Time: 18:30 – 23:00

Location: Museum Speelklok. Steenweg 6, 3511JP Utrecht
Cost: Free to Automotive Forum registered delegates

Join us for this unique event, which includes a welcome reception and a seated dinner. You will have plenty of time to network and discuss Automotive Forum topics with other attendees in an open setting.

6G Forum Networking Dinner [NEW]

Date: Monday 22nd September
Time: 17:30-20:00

Location: Barzone, Jaarbeurs (on-site)
Cost: Free to 6G Forum registered delegates.

Join us for this interactive walking dinner at the barzone! We will start with drinks at 17:30, and continue with dinner until 20:00.

EuMW Experience [Gala Dinner]

Date: Wednesday 24th September
Time: 18:30-23:00

Location: Utrecht Railway Museum - TRAINS LEAVE FROM CENTRAL STATION!
Cost: €60 (get your ticket at registration)

Hop on the EuMW train at Utrecht Central station at 18:30 and join us for an evening event, including dinner, in the Utrecht Railway Museum. The EuMW Experience intends to foster a lively and friendly interaction between as many as possible of the week's participants against the backdrop of beautiful railway travelling landmarks. Opening, at the Railway Museum will be at 19:00, closing at 23:00 - including a train back to Utrecht Central station. There will be guidance to get from the conference venue to the correct train.

Young Professionals Get-Together

Date: Sunday 21st September
Time: 18:30 – 23:00

Location: The Boules Club Utrecht. Oudegracht aan de Werf 83, 3511 AL Utrecht
Cost: Free for young professionals and student school participants, ticket required!

We welcome you to our young professionals evening get-together in Utrecht's The Boules Club, where you can try your hand at Jeu de Boules while enjoying dinner and drinks with fellow students and young professionals. Doors will open at 18:00. Entry is free, but a ticket is required; tickets (limited number) will be handed out at the registration desk on Sunday. The YP get-together is sponsored by IEEE YP and the IEEE Foundation, IEEE Region 8 YP, IEEE AP-S YP, IEEE MTT-S YP, and EuMA!

IEEE AP-S Antennas and Propagation Society
MTT-S IEEE MICROWAVE THEORY & TECHNOLOGY SOCIETY
EuMA EUROPEAN MICROWAVE ASSOCIATION
IEEE Foundation
IEEE young professionals Region 8
IEEE youngprofessionals

Young Professionals' Company Visit: Qorvo Excursion

Monday, 22nd September
Group 1: 13:50 – 14:35; Group 2: 14:50 - 15:35

Location: Qorvo, Leidseveer 10, 3511 SB Utrecht, Netherlands
Cost: Free to conference delegates, ticket (available during registration) required!

Join us for an exclusive company visit to Qorvo, organized specifically for Young Professionals and scheduled in two groups to provide a more engaging experience. Participants will gather at the exhibition venue and walk together (approximately 10 minutes) to Qorvo.

Entrepreneurship in RF

A joint Young Professionals and Women in Microwaves event
Date: Wednesday September 24
Time: 12:30 – 17:00

Location: Various, transport is arranged.
Cost: Free to EuMW delegates, registration required.

This unique event will be focused on the challenges and opportunities of starting a company in RF, to inspire you to do the same or to take their learnings to apply them to your current position! Part 1 (inside conference venue, room Polar): Lunch (12:30-13:00) with panel with four RF entrepreneurs with various stories and backgrounds (13:00-14:30). Part 2 (off site): Boat tour through Utrecht (leaves from the boat ramp underneath the Hoog Catharijne mall). You will get off at 'De Werfkelder' for networking and a presentation by an RF venture capitalist/investor (14:30-17:00). After registering, make sure to pick up your proof of entry at the main registration desk.

There are only limited spots available so make sure to register as soon as possible! Participation is free for all EUMW delegated, but registration is needed. We are looking forward to seeing you there!

This event is sponsored by EuMA, Eindhoven University of Technology, IMST, IEEE Women in Microwaves, IEEE MTT-S and IEEE Young Professionals.

Microwave Nightfever

Date: Thursday 25th September
Time: 20:30 – 00:00

Location: Jaarbeurs (on-site)
Cost: Free for microwave students and young professionals, ticket required!

Join us in the Jaarbeurs for Microwave Nightfever (20:30 – 00:00), the ultimate conference party, where RF and microwave engineers and industry partners come together for a high-energy night of music and networking.

ASML · ihp Leibniz Institute for High Performance Microelectronics · robin radar systems · qorvo

EuMA European Microwave Association · esa The European Space Agency · Keysight Technologies · THALES

Workshops and Short Courses

Despite the organiser's best efforts to ensure the availability of all listed workshops and short courses, the list below may be subject to change. Also workshop numbering is subject to change. Please refer to www.eumw.eu at the time of registration for final workshop availability and numbering.

Code	Time	Conf.	Title
Sunday 21 September 2025			
SS-01	Full day	EuMIC	Fundamentals of Microwave PA Design
SS-02	Half-day	EuMC	Wearable Antenna Systems for Joint Body-Centric Communication, Powering and Sensing
WS-01	Full day	EuMC/EuMIC	Advancements in Technologies and Circuits Leading to 6G
WS-02	Full day	EuMC	Polymer Microwave Fiber (PMF) Communication for Sub-THz, Low-Cost High Data Rate Short-Range Systems
WS-03	Full day	EuMC	Acoustic Wave Filters for Space Applications
WS-04	Full day	EuMC	Additive Manufacturing for Microwave Components and Systems
WS-05	Full day	EuMC/EuMIC	Opportunities and Challenges for the Cryogenic Microwave Control of Quantum Processors
WS-06	Full day	EuMC/EuMIC	RFIC Design, Packaging and Antenna Solutions for mm-Wave and Sub-THz Communication and Radar
WS-07	Full day	EuMC	Integrated Microwave Photonics
WS-08	Full day	EuMIC	Thermal Effects and Heat Management in Active Phased Arrays: Chip, Package and Antenna Level Concepts
WS-09	Full day	EuMC/EuMIC	Innovations in Load-Pull Techniques for Wideband and High-Frequency Applications
WS-10	Full day	EuMC/EuMIC	Advanced mm-Wave IC Design: A Step Ahead
WS-11	Half-day	EuMC/EuMIC	The Path to 2030: Joint Communication and Sensing in the 6G Internet-of-Everything Era
WS-12	Half-day	EuMC/EuMIC	AI and Data-Driven Modeling for RF/MW Design
WS-13	Half-day	EuMC	Microwave Carbon Footprint of Wireless Communications – From Energy Efficiency to Embedded Emissions
Monday 22 September 2025			
SM-01	Half-day	EuMC	Architecture and Applications for Emerging SATCOM and NTN Communication Networks
SM-02	Half-day	EuMC	Radiative Wireless Power Transfer Basics and Implementation
WM-01	Full day	EuMC	Photonic Technologies and Systems for RF Applications
WM-02	Full day	EuMC	Latest Advancements in Microwave Measurement Techniques for Future Communications and Quantum Applications
WM-03	Half-day	EuMC/EuRAD	Standard, Prototype, and Measurement for Integrated Sensing and Communications in the COST Action INTERACT

Code	Time	Conf.	Title
Wednesday 24 September 2025			
SW-01	Full day	EuMC/EuMIC	Embedding Sustainability into RF Technologies
WW-01	Half-day	EuMC	Innovative Semiconductor Device Architectures and Accurate Modeling for Emerging Applications – Bridging the Gap Between Circuit Design Challenges and Practical Commercialization
WW-02	Half-day	EuMC/EuRAD	High Resolution Radar Technologies for Future Automotive Systems
WW-03	Half-day	EuMC/EuMIC	RF & Sub-THz Heterogeneous Integration
WW-04	Half-day	EuMC	Recent Progress in Compact, Ultra-Low Phase Noise Microwave-Photonic Frequency Synthesis
Thursday 25 September 2025			
STh-01	Full day	EuMC/EuRAD	Basics of Systems Engineering for the Microwave Engineering Community
STh-02	Half-day	EuRAD	Synchronization in Distributed Radar – Prospective and Problems
WTh-01	Full day	EuRAD	Automotive Radar Research Trends
WTh-02	Half-day	EuRAD	Multistatic/Distributed Radar Systems
Friday 26 September 2025			
SF-01	Half-day	EuRAD	Integrated Sensing and Communications: Fundamentals, State-of-the-Art and the Road Ahead
SF-02	Half-day	EuRAD	Nonlinear Radar: From Concepts to Applications

Registration Information

CONFERENCE REGISTRATION DETAILS

Join the global microwave and RF community at EuMW 2025. Register today and be part of the conversation shaping the future of our industry. For pricing, please see the following page.

ONLINE REGISTRATION
- All online registrations should be made at www.eumw.eu
- Registrations completed up to and including 22nd August 2025 will be charged at the 'Advance Discounted Rate' and those from 23rd August 2025 will be charged at the 'Standard Rate'.
- Online registration is open from mid June 2025 up to and during the event until 26th September 2025.

ONSITE REGISTRATION
Onsite registration is available during the following timeslots:
- Saturday 20 September 2025 (16:00 – 19:00)
- Sunday 21 – Thursday 25 September 2025 (08:00 – 17:00)
- Friday 26 September 2025 (08:00 – 10:00)

Onsite registration will be charged at the Standard Rates.

HOW TO REGISTER

If you have any questions regarding registration procedures and payment, please email:
- Conference Registration questions: eumweek@mcon-mannheim.de
- Exhibition Registration questions: exhibitionreg@eumweek.com

REGISTER ONLINE AT WWW.EUMW.EU
- Delegates can register for one, two or all three of the conferences.
- Discounts will be given to those registering for two or more conferences.
- Payment can be made online using Amex, Visa, Mastercard or Bank Transfer.
- Registrants paying by Credit Card will be sent an automatic email confirmation, with a receipt and badge barcode.
- Registrants choosing to pay by Bank Transfer will receive their confirmation, but their receipt and badge barcode will be sent only once payment has been received and cleared by Horizon House.
- Bring your receipt, barcode and photo ID with you to the event.
- Go to the Fast Track Check In Desk and print out your badge.

ONSITE REGISTRATION
- The registration area will be as signposted.
- There will be Self Service terminals in the registration area where delegates can enter their details and pay immediately by swiping their credit cards through the readers attached to the terminals.
- Delegates can also choose to 'Pay at Cashier' and then proceed to the Cashier Point and pay using credit cards or cash. Receipts will be given accordingly.

For any questions, please email:
eumweek@mcon-mannheim.de (conference) or
exhibitionreg@eumweek.com (exhibition)

Registration Fees

Get the most out of this year's Microwave Week with a Full Week ticket. Combine all three conferences with additional access to the Defence, Security and Space and the 5G to 6G Forum (the Automotive Forum and the Schools are not included) as well as all the Workshops and Short Courses.

Registration at one conference does not allow access to the sessions of the other conferences.

The fees shown below are invoiced in the name and on behalf of the European Microwave Association. All payments must be in € Euros – cards will be debited in Euros.

Reduced rates are offered if you have society membership to any of the following: EuMA, GAAS®, IET or IEEE. Reduced rates for the conferences are also offered if you are a Student/Senior (Full-time students 30 years or younger and Seniors 65 or older as of 23rd September 2025).

One can apply for EuMA membership by ticking the appropriate box during registration for EuMW. Membership is valid for one year, starting when the subscription is completed. The discount for the EuMW fees applies immediately.

BECOME A MEMBER – NOW!

EuMA membership fees: Professional € 25 / year, Student € 15 / year.

Members have full e-access to the International Journal of Microwave and Wireless Technologies. The printed version of the journal is no longer available.

EUMA KNOWLEDGE CENTRE

The EuMA website has its Knowledge Centre which presently contains over 22,000 papers published under the EuMA umbrella. Full texts are available to EuMA members only, who can make as many copies as they wish, at no extra-cost.

Conferences

	ADVANCE DISCOUNTED RATE (From now up to & including 22 August 2025)				STANDARD RATE (From 23 August 2025 & Onsite)			
	Society Member		Non-Member		Society Member		Non-Member	
1 Conference	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.
EuMC	€ 710	€ 200	€ 1,000	€ 280	€ 1,000	€ 280	€ 1,400	€ 400
EuMIC	€ 540	€ 180	€ 760	€ 250	€ 760	€ 250	€ 1,060	€ 350
EuRAD	€ 490	€ 170	€ 680	€ 240	€ 680	€ 240	€ 950	€ 330
2 Conferences	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.
EuMC + EuMIC	€ 1,000	€ 250	€ 1,400	€ 350	€ 1,400	€ 350	€ 1,970	€ 450
EuMC + EuRAD	€ 960	€ 250	€ 1,340	€ 350	€ 1,340	€ 350	€ 1,900	€ 450
EuMIC + EuRAD	€ 820	€ 250	€ 1,150	€ 350	€ 1,150	€ 350	€ 1,610	€ 450
3 Conferences	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.
EuMC + EuMIC + EuRAD	€ 1,220	€ 300	€ 1,710	€ 400	€ 1,710	€ 400	€ 2,390	€ 500
Full Week Ticket	€ 2,070	€ 500	€ 2,680	€ 600	€ 2,680	€ 600	€ 3,510	€ 700

Special Forums And Sessions Registration

		ADVANCED DISCOUNTED RATE (Up to & including 22 August 2025)		STANDARD RATE (From 23 August 2025 & Onsite)	
	Date	**Delegates***	**All Others****	**Delegates***	**All Others****
Automotive Forum	23 September 2025	€ 365	€ 515	€ 510	€ 720
Defence, Security & Space Forum	24 September 2025	€ 180	€ 250	€ 250	€ 350
6G Forum	22 September 2025	€ 365	€ 515	€ 510	€ 720
Tom Brazil Doctoral School	21 September 2025	€ 40	€ 40	€ 55	€ 55
European Microwave School in Radars	22 September 2025	€ 40	€ 40	€ 55	€ 55
EuMW Experience	24 September 2025	€ 60	€ 60	€ 60	€ 60

*those registered for EuMC, EuMIC or EuRAD
**those not registered for a conference

Workshops And Short Courses

	IN COMBINATION WITH CONFERENCE REGISTRATION				WITHOUT CONFERENCE REGISTRATION			
	Society Member		**Non-Member**		**Society Member**		**Non-Member**	
	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.	Standard	Student/Sr.
Half Day	€ 120	€ 90	€ 170	€ 120	€ 170	€ 120	€ 220	€ 170
Full Day	€ 180	€ 130	€ 240	€ 180	€ 240	€ 180	€ 320	€ 240

Sunday: lunch boxes provided to delegates
Monday – Friday: delegates receive a seated lunch

14th Tom Brazil Doctoral School of Microwaves: Co-design and heterogeneous integration for Future Electronic Systems

Date: Sunday 21st September
Location: Juliana CZ1

Chair: Anouk Hubrechsen, Antennex

Modern electronic systems demand unprecedented levels of performance, compactness, and functionality. Achieving this requires not only technological advances in circuits and components, but also a paradigm shift toward co-design and heterogeneous integration. This one-day course is designed to introduce students, PhD researchers, and young professionals to the principles, challenges, and cutting-edge solutions in the co-development of RF circuits, antennas, packaging, and system-level architectures.

Co-design refers to the concurrent development of multiple system domains–from circuit and antenna to packaging and interconnects–while heterogeneous integration addresses the physical and functional merging of disparate technologies, such as Si CMOS, III-V semiconductors, and waveguide structures. Together, these approaches are key to enabling high-frequency systems for next-generation wireless communication, sensing, and radar applications.

The course is structured in three parts: Co-design principles and use cases, Advanced packaging and integration, and Integration of photonic and electronic components. The course features technical presentations from leading universities, research institutions and companies.

This course is ideal for graduate students, PhD candidates, and early-career engineers working in RF/microwave design, electronics packaging, antennas, or systems engineering. It will benefit anyone seeking to understand how to approach system design holistically, across domains and technologies.

Registration

Please visit (click or scan)

Further information
Fee: € 40
Only 50 places, save your ticket in advance

Students are required to bring their laptops!

Part 1: Co-design Principles and Use Cases

08:30 – 09:15 **Trends and Outlook for Future RF Systems Design**
Peter Baltus, Eindhoven University of Technology

09:30 – 10:05 **Packaging and Integration of Silicon ICs with Antennas/Waveguides**
Piyush Kaul, Eindhoven University of Technology

10:10 – 10:55 **Mm-Wave Circuits for Sensing and Communication: Design and Characterization**
Vojkan Vidojkovic, Eindhoven University

11:00 – 11:45 **A Demonstrated Co-Design Workflow for Power-Amplifier Integrated Active Phased Arrays**
Martijn de Kok, TNO and Eindhoven University of Technology

12:00 – 13:30 **Lunch with Demonstration of Measurements in a reverberation chamber by Antennex**

13:50 – 14:35 **Mastering Accurate and Practical Over-the-Air Characterization Techniques from Passive to Active Antenna Systems**
Marc Vanden Bossche, AntenneX

14:40 – 15:25 **Antenna Front-End Co-Design and Integration in Silicon Technologies at Sub-Terahertz Frequencies.**
Maria Alonso del Pino (TU Delft)

Part 2: Advanced Packaging and Integration

15:30 – 16:15 **Heterogeneous Integration for mm-Wave: What [not] to do?**
Peter Magnee, NXP

Part 3: Integration of Photonic and Electronic Components

16:20 – 17:05 **Heterogeneous Photonics Integration for Microwave Photonics**
Martijn Heck, Eindhoven University of Technology

European Microwave School in Radars
Build a 1GHz FMCW Radar in a day

Date: Monday 22nd September
Location: Spark
Time: 08:30 – 17:50

Chair: Shian Su, North Carolina State University, USA

This hands-on short course provides participants with a practical introduction to Frequency Modulated Continuous Wave (FMCW) radar design. The workshop begins with a foundational lecture covering radar system theory and signal processing principles. Attendees will then collaborate in teams to design, fabricate, and assemble a fully functional 1 GHz FMCW radar system. First, each team will build a connectorized radar system to understand the principle of operation. Then each participant will focus on designing and building a specific microwave component, including a power amplifier, low-noise amplifier, rat-race coupler, and mixer, with baseband signal components provided. No prior radar experience is required—only a general understanding of microwave engineering. By the end of the session, participants will have gained hands-on experience in radar system integration, component testing, and real-world applications.

Material will be provided, students are required to bring their own laptops.

Schedule

08:30 – 08:40	**Welcome**
08:40 – 10:10	**Introduction to FMCW Theory and Demo**
10:10 – 10:40	Coffee break
10:40 – 12:30	**Design and Fabricate Radio Components**
12:30 – 13:40	Lunch Time
13:50 – 15:30	**Performance Measurement for Hand-Build Components**
15:30 – 16:10	Coffee break
16:10 – 17:50	**Assembling/Testing Prototypes and Conclusion**

Registration

Please visit (click or scan)

Further information
Sponsored by Thales
Only 50 participants, get your ticket in advance!

Student Design Competition
Crack the Codes!

We are excited to offer a student design competition taking place at EuMW2025 in Utrecht! The winning team will receive a prize.

Whether you are visiting the integrated circuits conference, are here for the radar systems, or whether you are a big fan of microwave-based devices does not make a difference this week; we are all inventors at heart. This competition will be centred around codes and inventions. A number of code words have been hidden around the area. Hints to where to look for can be found all around the place. Think for example about a secret radio transmission that spells out a code, or an RFID tag with a hidden message. The goal is simple: crack as many of the codes as possible. If all codes are found, the first team to do so wins.

You will receive a Joy-Pi kit which includes a breadboard and a number of sensors and two programmable ESP-32 chips to aid in your quest. Hence, you can build circuits and write software to aid in your quest. You are free to build whatever you deem necessary.

The competition is open to all students. If the competition is not full, ex-students who are interested in cracking a code are free to join. Only student teams are eligible for the awards, though. Furthermore, a representative of the design team must be present at the competition day. For more information and questions, please contact Elles Raaijmakers (e.a.l.raaijmakers@tue.nl).

How to Participate

1. Request the entry form (by e-mail to be sent to Elles Raaijmakers – e.a.l.raaijmakers@tue.nl).

2. Submit the entry form before September 11th, 2025 (a confirmation letter will be sent).

3. Students are encouraged to install Arduino supporting software before the competition begins.

4. Students should bring their own laptops to participate in the competition.

Entrepreneurship in RF
A joint Young Professionals and Women in Microwaves event

Date: Wednesday September 24th
Room/Location: Polar/Off-site
Time: 12:30 – 17:00

Chair: Anouk Hubrechsen, Antennex
Co-chairs: Pilar Castillo-Tapia, KTH Royal Institute of Technology; Ana Inês Inácio, TNO

This unique event will be focused on the challenges and opportunities of starting a company in RF, to inspire you to do the same or to take their learnings to apply them to your current position! We have two parts: a panel session at the conference venue, followed by a boat tour and off-site networking with a presentation.

There are only limited spots available, so make sure to register as soon as possible! Participation is free for all EUMW delegates, but registration is needed. We are looking forward to seeing you there!

Lunch

Room: Barzone
Time: 12:30 - 13:00

Part 1: Panel Discussion

Room: Polar
Time: 13:00 – 14:30

A panel discussion consisting of four RF entrepreneurs with various stories and backgrounds.

Panelists:
- Anouk Hubrechsen, CEO Antennex (moderator and panelist)
- Tanja Claasen-Vujcic, CTO Robin Radar Systems
- Michael McLaughlin, CTO Decawave (now Qorvo)
- Pepe Rico, CEO Northern Waves

Registration & Cost

Free to EuMW delegates, registration is required. Limited places available, so register early! **After registering, make sure to pick up your proof of entry at the main registration desk.**

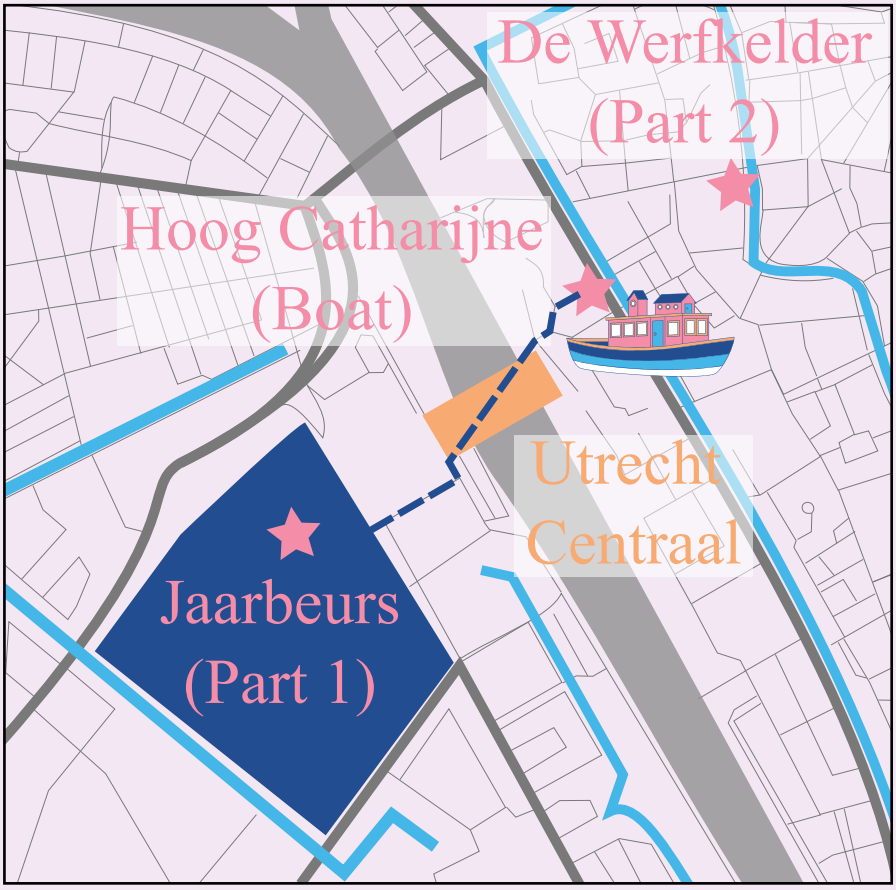
This event is organized by IEEE MTT-S Women in Microwaves and IEEE Region 8 Young Professionals, and sponsored by EuMA, Eindhoven University of Technology, IMST, IEEE Women in Microwaves, IEEE MTT-S and IEEE Young Professionals.

Part 2: Excursion

Location: off site
Time: 14:30 – 17:00

We will walk together from Room Polar (Jaarbeurs) to the Boat Ramp in the basement of the Hoogh Catharijne mall (see map). The boat travels 30min through the city canals and will bring us to 'De Werfkelder' in the Utrecht city center. There, we will meet an RF venture capitalist who will present on what makes an investable startup. After the event, it is a 5min walk to the station where you can go immediately to the gala dinner, or a 15min walk back to the Conference Venue. The number of tickets for Part 2 is limited, so make sure to register for this part.

Speaker:
Ronald Wissink, Managing Partner Value Creation Capital



Student Career Event
Connect with Leading Technology Companies!

Date: Thursday September 25th
Room: Polar + Flame Foyer
Time: 11:30 – 16:10

Chair: Paola Escobari Vargas, Eindhoven University of Technology

The Student Career Event at EuMW 2025 returns with an expanded format, offering more ways for students and young professionals to engage with leading technological companies. Building on last year's edition, this year introduces a series of events designed to foster meaningful connections, provide career insights, and support your next professional step.

Whether you're exploring internships, graduate roles, or simply looking to expand your network, the Student Career Event offers valuable opportunities to connect and grow.

Career-Focused Activities

Join us for a dedicated day of student–industry interaction

11:30 – 12:30 **Polar: Company Pitches**
Get to know the companies through short presentations introducing their work and what they're looking for.

12:30 – 13:50 **Flame Foyer: Company Booths**
Meet company representatives in an informal setting, ask questions, and explore available opportunities.

13:50 – 16:10 **Flame Foyer: One-on-One Speed Interviews**
Engage in short, focused conversations with recruiters. Students are encouraged to bring printed copies of their CVs.

Job Wall

Date: Starting Sunday September 21st
Location: Near the registration area

The Job Wall will feature posters from participating companies highlighting job openings, internship opportunities, and company information. Visit anytime during the week to explore your options and identify companies of interest.

Sponsors

ASML

ihp Leibniz Institute for High Performance Microelectronics

robin radar systems

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EuMA EUROPEAN MICROWAVE ASSOCIATION

esa → THE EUROPEAN SPACE AGENCY

KEYSIGHT TECHNOLOGIES

THALES

The Automotive Forum
Innovations and Technology Trends for High-Performance Automotive Radars and Their Advanced Testing Capabilities

Date: Tuesday 23rd September 2025
Room: Progress
Time: 08:30 – 18:00

Chair: Benjamin Nuss, Karlsruhe Institute of Technology, Germany
Co-Chairs: Martin Kunert, Radar Expert, Germany & Kostas Doris, NXP Semiconductors, The Netherlands & Thomas Zwick, Karlsruhe Institute of Technology, Germany

Applications like keyless entry or tire pressure monitoring systems, mobile communications and, more recently, automotive radar systems made microwave technologies a strong pillar inside the automotive world.
The first 77 GHz automotive radar sensors entered the European vehicle market in 1999. In 2019, the European Microwave Association (EuMA) for the first time organized the Automotive Forum to provide an open platform for industrial experts to discuss technical aspects, concepts and radar architectures as well as market issues in the area of microwaves in the automotive industry.

The forum consists of a good mix of technical talks and poster presentations, a keynote speech, a panel discussion, and plenty of time for networking. This year's event will focus on the following topics:

1. Enabling technologies and chip design
2. AI and future market outlook
3. Imaging radars
4. Radar testing

The forum is mainly devoted to technical experts from automotive industry throughout the whole supply chain. Keynote speakers will present their views on special technical solutions as well as regulatory or strategic issues. Early registration is recommended.

Registration and Programme Updates

Please visit (click or scan)

Automotive Forum Networking Dinner

Tuesday 23rd September 2025
18:30 – 23:00

Cost: Dinner is already included in the Automotive Forum registration fee
(Please bring your badge to gain admission.)

Location off-site: Museum Speelklok, Steenweg 6, 3511 JP Utrecht

Join us for this unique event, which includes a welcome reception and a seated dinner. You will have plenty of time to network and discuss Automotive Forum topics with other attendees in an open setting.

The Automotive Forum
Programme

Session 1: Opening & Enabling Technologies

Chair: Benjamin Nuss, Karlsruhe Institute of Technology

08:30 – 08:55 **Facing Challenges: Advancing Radar for Next-Gen ADAS and Autonomous Driving**
Maximilian Steiner, Mercedes-Benz, Germany

08:55 – 09:20 **High Performance Interference Mitigation Edge DSP Solutions for Automotive Radars**
Ryan Wu, NXP, United States

09:20 – 09:45 **Enabling the Future of High-Channel Count Imaging Radars**
Farzad Inanlou, GlobalFoundries, USA

09:45 – 10:10 **A Comparative Case Study of In-Cabin Sensing: Child Presence Detection (CPD) with 60 GHz Radar and Emerging UWB Technologies**
Yaohui Liu, Calterah, China

Session 2: AI & Future Market Outlook

Chair: Martin Kunert, Radar Expert

10:50 – 11:15 **The Challenge of Large Scatterers: Ensuring Accurate Scene Reconstruction for L3/L4 Autonomous Driving Systems**
Tim Campbell, Wayve, United Kingdom

11:15 – 11:40 **Model-Based Learning for DOA Estimation and Radar Imaging in Autonomous Vehicles**
Shunqiao Sun, The University of Alabama, USA

11:40 – 12:05 **140 GHz Automotive Radar as the Enabler for New System Design Approaches**
Christian Sturm, Valeo, Germany

12:05 – 12:30 **Automotive Radar 2025–2030: Technology Trends and Market Outlook**
Hassan Saleh, Yole, France

Poster Presentations

Efficiently Measuring 360° RCS Profiles for Accurate Automotive Radar Simulations
Resmi Johnson, Maximilian Schmid, Maximilian Steiner, Mercedes Benz, Germany

Empowering ADAS: Flexible, Hardware-Agnostic Radar Software for Monostatic and Distributed Aperture Architectures
Jake Dehm, Srikant Vasudevan, Michael McKinney, Christopher F. Barnes, Allyson McKinney, Robert Jennings, SoloPulse, USA

Calterah Lancang SoC for High Performance In-Cabin Radar Solution
Yaohui Liu, Calterah Semiconductor, China

Lens Integrated Radome for Modular Sensing Performance
Coen van de Ven, Gapwaves, Sweden

Improving In-Cabin Safety: UWB Automotive-Radar Applications for Child Presence Detection
Sevda Abadpour, Qorvo, Germany

Contactless Air Integrated Waveguides in FR4 for 140 GHz Automotive Radar
Simona Bruni, Nataliia Lupyna, Andreas Bettray, Markus Krengel, Aline Friedrich, Lila Stavrou, Marta Arias, Oliver Litschke, IMST, Germany

Optimized 77 GHz Radar Solution via Waveguide Antenna-Welding Co-Design
Haoyu Wan, Pan-yoo ZH-R&D Office Hangzhou, China

Advantages of a Radar-Centric Approach for ADAS
Andreas vom Felde, ZENDAR, Germany | Holger Meinel, Automotive Radar Expert, Germany

Research Advances in Digital Radar Transceivers, RF-Chiplets, and Novel System Approaches
Tobias T. Braun, Ruhr University Bochum, Germany

Robotic-Assisted Radar Transmission Measurements of Painted Bumper Samples to Validate TLM Simulations
Mehdi Khlif, Florian Pfeiffer, perisens, Germany

Session 3: Poster Presentations & Imaging Radar Progress

Chair: Kostas Doris, NXP Semiconductors

13:50 – 14:15 **Poster Presentations**

14:15 – 14:40 **Resolving the Most Challenging Use Cases with Radar**
Matan Nurick, Shlomit Hacohen, arbe, Israel

14:40 – 15:05 **Imaging Radar Enables Eyes off on the Highway**
Yaniv Avital, Ophir Shabtay, Ilia Yoffe, Ofer Markish, Mobileye, Israel

15:05 – 15:30 **Digital Radar in Software-Defined Vehicles**
Jungah Lee, Aura Intelligent Systems, USA

Session 4: Radar Testing

Chair: Thomas Zwick, Karlsruhe Institute of Technology

16:10 – 16:35 **How Hyper-Realistic Radar Simulation Can Revolutionize AI for Automotive Radars**
Marcel Hoffmann, Christian Schüßler, Eva Dorschky, Tim Pfahler, Michael Stelzig, fiveD, Germany

16:35 – 17:00 **Effectiveness Testing of ADAS in the PTI**
Andreas Himmler, dSPACE, Germany | Peter Geigle, MAHA, Germany

17:00 – 17:25 **Refined Ray Patterns and Propagation for Automotive Radar Applications**
Nikola Caric, Basim Alabd, IPG, Germany

17:25 – 18:00 **Panel Discussion**

Poster Presentations

Cooperative SDR Evaluation Platform for Digital Automotive Radar and ISAC
Lukas Witte, Andre Scheder, Tobias Kögel, Jonas Rottinghaus, Christian Karle, Benjamin Nuss, COMSENTRY, Germany

A Centralized Radar Architecture for Next-Generation Software Defined Vehicles
Andre Giere, Stefan Brisken, Cruise Munich, Germany

The Defence, Security and Space Forum

Space Weather and its Effects on Critical Infrastructures Here on Earth

Date: Wednesday 24th September 2025
Room: Auditorium

Organizer: André Bos, NEST Group

Space Weather: Terrestrial weather is not the only type of weather we are experiencing. The other type of weather is Space Weather. Space Weather originates from the high energy processes that take place at our Sun causing a solar wind -- stream of charged particles released from the upper atmosphere of the Sun, called the corona. The most well-known observation that results from Space Weather are the Northern and Southern Lights (Aurora Baleares and Aurora Australis, respectively), but we also experience changes in long distance radio propagation, and disturbances in radio reception due to eruptions at the Sun.

Space Weather can be dangerous: Space Weather can also be dangerous for life here at Earth. In the year 1859 (Sept 1st and 2nd) we have witnessed how a violent Sun can have serious effects on our electrical systems. At that time our Sun did generate an intense geomagnetic storm that generated sparking and even firing in telegraph systems. The storm, later known as the Carrington Event after the British astronomer that studied the event, generated several solar flares and a Coronal Mass Ejection (CME). And although in the last decades our society has been increasingly dependent on advanced electronic systems, we haven't felt the impact of violent space weather yet as the Sun has been rather quiet. But nothing guarantees that remains at these calm levels. The 11 year cycle may indicate an increase in activity for the coming years, but no one yet can tell. All of that extra radiation can damage the satellites we use for communications and navigation, or disturb their signals. It can disrupt power grids that provide our electricity. The radiation from solar storms can also be dangerous for astronauts in space.

Defense has a special interest in Space Weather. Key technologies used by Defense are vulnerable to disruption from the effects of severe space weather on technology and the near-Earth space environment:

- Improved understanding of how space weather affects military systems increases our ability to manage disruptions and outages
- Maintaining technological diversity and designing robust systems are vital to building Defense resilience to severe space weather.

The US military is operating a large observation system network, the Solar Electro-Optical Network (SEON), which is a real-time solar optical and radio observing and analysis network.
Attending this forum will increase your understanding of most aspects of space weather. During the forum you will:

- Increase the understanding of the basic physics underlying Space Weather
- How Space Weather affects military operations and critical infrastructure, and what the societal impact will be on Earth
- What current and future systems do monitor Space Weather
- How Space Weather affects GPS and other GNSS navigation and timing.
- How Space Weather affects communications on Earth
- How to obtain Space Weather open-source data, and how to do research.

"Space Weather and How it Affects Systems on Earth"

Please visit (click or scan)

2024 – Paris
How Future Defence Strategies are Driving Technological Advancements from Devices to Systems

2023 – Berlin
Boosting Connectivity for Moving Platforms

2022 – Milano
Modern Defence Systems: Key Technologies and Future Challenges

2021 –London
RF Sensing from Space: Modern Trends and Challenges

2020 – Utrecht
Space Situtational Awareness

2019 – Paris
New Radio Architectures: The Evolution for Satellite Constellations

2018 – Madrid
Integrating Unmanned Systems in Defence and Security Scenario's

The Defence, Security and Space Forum
Programme

10:40 – 11:20	**General SPW introduction** US Space Force (USSF) Stephen White
11:20 – 12:00	**SPW Products and services** Solar-Terrestial Centre of Excellence (STCE) Petra VanLommel
12:00 – 12:30	**SPW impact on military operations** Dutch MoD Major WP van der Laan
12:30 – 13:50	Lunch
13:50 – 14:30	**(GNSS) Signal disturbances due to SPW** ESA/ESTEC Raul Orus Perez
14:30 – 14:50	**Building Resilient RF Electronics: Mitigating Interference from Space Weather and Other Sources** Spectrum Control Jeff Miner
14:50 – 15:30	**SPW Monitoring systems with DISTURB as a prime example** ASTRON NL Michiel Brentjes
15:30 – 16:10	Coffee / Tea
16:10 – 16:40	**Supporting Space Domain Awareness with the SMART-L MM radar** Thales Nederland B.V. Erwin van der Poel
16:40 – 17:00	**Developing Robust and Economical RF Solutions for Next Generation Defense and Commercial Space Platforms** Qorvo Dean White
17:00 – 17:50	**All -- Round table**

2017 – Nuremberg
The Internet of Space: Technologies and Applications

2016 – London
Challenges and Opportunities for Indoor/Enclosed and Urban Communications and Sensing Technologies

2015 – Paris
RF Payloads for Unmanned Aerial Vehicles

2014 – Rome
Protection and Security of our Infrastructure and Home Land

2013 – Nuremberg
Military Radar vs. Automotive Radar

2012 – Amsterdam
Defence and Security including Space

2011 – Manchester
MMW Imaging Systems

2010 – Paris
The Defence, Security and Space Forum

6G Forum

Date: Monday 22nd September 2025
Room: Auditorium

Chair: Prof. Bart Smolders (Eindhoven University of Technology)
Organizing committee: Ulf Gustavsson (Ericsson), John Gajadharsing (Ampleon), Jos Berière (TNO/FNS-6G) and Bart Smolders (Eindhoven University of Technology)

The 6G forum is a dynamic and interactive industrial-oriented event to bring you up to date with the latest developments in wireless communications. There will be several exclusive keynote presentations from experts on applications, standardization, spectrum management and advanced microwave and antenna technologies. We will address the ongoing discussions on which frequency bands will be most successful from a commercial point of view. In addition, there will be several live demos showing recent technological developments on the road to 6G. In addition, there will be plenty of room for discussion and networking. The event includes a networking lunch and dinner, sponsored by the Dutch FNS-6G program.

Including networking dinner sponsored by FNS-6G

Programme

6G Leading applications

09:00 – 09:30 **Business First only by clean Technology Second implementation**
Jacob Groote, KPN

09:30 – 10:00 **5G/6G for medical equipment used during minimally invasive surgery**
Danny Ruijters, Philips

10:00 – 10:30 **How to kill your colleagues and get away with it, or why safety systems are important**
Peter Burman, Boliden

10:30 – 11:00 Coffee break and networking

Physical Layer Overview, Standardization & Regulation (incl. deployment)

11:00 – 11:30 **Fundamental 6G physical layer properties**
Robert Baldemair, Ericsson

11:30 – 12:00 **The mid-band spectrum (FR3) for 6G: Opportunities, challenges and technological advancements.**
Stefan Wesemann, Nokia

Registration and Programme Updates

Please visit (click or scan)

Sponsors from industries participating in the forum

12:00 – 12:30 **Spectrum for 6G: where technology and policy meet**
Pieter Nooren, TNO, The Netherlands

12:30 – 13:00 **When and How AI Meets 6G - Innovations, Challenges, and Future Directions**
Giovanni D'amore, Keysight

13:00 – 14:20 Lunch and demo
Walking lunch including live Demo's from Keysight, Rohde&Schwarz and Antennex

6G technologies, Sub-6 towards 7-24 GHz, (FR1, FR3)

14:20 – 14:50 **Future basestation architectures**
Ulf Gustavsson, Ericsson Research

14:50 – 15:20 **New semiconductor technologies for improved power efficiency**
Fred van Rijs, Ampleon

15:20 – 15:50 **Analog Fronthaul for 6G**
Simon Rommel, Eindhoven University of Technology

15:50 – 16:30 Coffee/Tea break
Drinks and Networking

6G technologies, 24-300 GHz (FR2, FR4)

16:30 – 17:00 **Full Antenna in Package Solution for 100GHz 6G infrastructure, in 140nm SiGe BiCMOS Technology**
Mustafa Acar, NXP Semiconductors

17:00 – 17:30 **Development of InP-on-Si for high-speed communications**
Bertrand Pervaes, IMEC

17:30 – 20:00 Networking dinner
Walking dinner at Barzone. Starts with drinks at 17:30

The generations of wireless networks

6G – Enabling a smart sustainable society ~2030
- Extension to (sub) mmWave frequencies
- Real-time cloud computing

1 Tbps

5G – Embracing a networked society ~2020
- 1000 × increase in capacity
- Support for 100+ billion connections
- Below 1 ms latency

10 Gbps

4G – Mobile broadband enhanced ~2010
- Designed primarily for data
- IP based protocol
- True mobile broadband

100 Mbps

3G – The foundation of mobile broadband ~2000
- Designed for voice and data
- First mobile broadband
- Voice through circuit & Data-Packet Switching

2 Mbps

2G – Mobile telephony for everone ~1990
- Designed for voice
- First digital stAndards (GSM, CDMA)

64 Kbps

1G – The foundation of mobile telephony ~1980
- Basic voice service
- Analog based protocols

2.4 Kbps

MONDAY 08:30 – 10:10

ROOM **Polar**

EuMIC01
EuMIC Opening

Chair: Marion K. Matters-Kammerer[1]

Co-Chair: Cicero S. Vaucher[2]

[1]Eindhoven University of Technology - TU/e, [2]NXP / TU Delft

08:30 – 08:50

Welcome Address: Opening of the European Microwave Integrated Circuits Conference 2025

Marion K. Matters-Kammerer[1]

[1]Eindhoven University of Technology - TU/e

08:50 – 09:30

mm-Wave Radar and Beyond: An Automotive Sensing Perspective

Kostas Doris[1]

[1]NXP Semiconductors

The recent evolution of automotive radar sensors operating in the 76–81 GHz band has enabled advanced safety features in modern vehicles. To achieve higher levels of autonomous driving, future sensors must support high-resolution applications such as precise environmental mapping, accurate localization, and enhanced classification of small objects and vulnerable road users.

Meeting these demands requires radar systems with significantly higher resolution, robust perception capabilities, and rich point cloud generation across wide fields of view and extended ranges. These systems must also integrate seamlessly into vehicle chassis and networks. This raises a critical question: will mm-wave radar eventually run out of steam? This talk will explore innovations in waveform design, antenna systems, and circuit architectures that push the performance boundaries of large-scale MIMO radar within the 76–81 GHz band. It will also examine the challenges and opportunities of extending beyond 100 GHz and adopting hybrid sensing approaches that bridge the gap between millimeter and optical wavelengths.

09:30 – 10:10

Next-Gen Terahertz SoCs: Light-Field Imaging and Scalable Incoherent Architectures

Ullrich R. Pfeiffer[1]

[1]University of Wuppertal

Bridging the Terahertz (THz) gap remains one of the toughest challenges in circuit design. As frequencies rise, key circuit parameters such as gain, bandwidth, and noise performance degrade rapidly. Maintaining coherence becomes increasingly inefficient and blocks the path to large-scale, practical system integration.

This keynote explores a new direction: scalable, incoherent THz system-on-chip

(SoC) architectures that offer a fundamentally different approach to overcoming traditional limitations. Recent demonstrations from our laboratory highlight both sides of the technology landscape. A 6G MIMO transceiver operating at 300 GHz showcases the strengths of coherent communication systems, pushing the boundaries of data throughput and integration. THz light-field imaging and 2D near-field cameras, in contrast, illustrate the potential of incoherent architectures, enabled by spatio-directional THz sources and detectors that capture rich spatial information without requiring phase coherence.

The advantages and trade-offs between coherent and incoherent techniques will be analyzed, offering a roadmap for future THz SoC designs. These emerging architectures are poised to open new domains across communications, imaging, and sensing, driving the next generation of high-performance, accessible THz systems.

MONDAY 10:50 – 12:30

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMIC02 Doherty Amplifiers and Linearizers for Communication Systems Chair: Kevin Morris[1] Co-Chair: Chiara Ramella[2] [1]University of Leeds, [2]Politecnico di Torino	**EuMIC03** High-Performance Integrated LNAs Chair: Vojkan Vidojkovic[2] Co-Chair: Ulrich Lewark[1] [1]IMST GmbH, [2]Eindhoven Univeristy of Technology	**EuMIC04** Technologies for mm-Wave Transmitters and Receivers Chair: Frank E. van Vliet[1] Co-Chair: Herbert Zirath[2] [1]TNO Defense, Safety and Security, [2]Chalmers University of Technology	**EuMIC05** Integrated Circuits for Emerging Applications Chair: Nathalie Deltimple[1] Co-Chair: Alessandro Cidronali[2] [1]Bordeaux INP, IMS Laboratory, [2]University of Florence
10:50 – 11:10	**EuMIC02-1** An Integrated GaAs HBT Doherty Power Amplifier for Wi-Fi 6 Francesco Manni[1], Rocco Giofrè[1], Corrado Florian[2], Alberto Maria Angelotti[2], Gian Piero Gibiino[2], Marco Pirola[3], Chiara Ramella[3], Paolo Colantonio[1] [1]University of Rome Tor Vergata, [2]University of Bologna, [3]Politecnico di Torino	**EuMIC03-1** Broadband LNA MMIC with Enhanced Selectivity Using an Optimized Coupled-Line Matching Network for Efficient Out-of-Band Rejection Sunghyuk Kim[1], Songjune Lee[1], Dabin Kim[1], Min-Su Kim[2], Junghyun Kim[1] **EuMIC CP&YEP nominee** [1]Hanyang University ERICA Campus, [2]Mokpo National University	**EuMIC04-1** A Superheterodyne 300 GHz InGaAs Receiver and Transmitter Chipset for 6G and Beyond Applications Lukas Gebert[1], Benjamin Schoch[1], Thomas Ufschlag[1], Dominik Wrana[1], Simon Haussmann[1], Laurenz John[2], Sandrine Wagner[2], Ingmar Kallfass[1] [1]Institute of Robust Power Semiconductor Systems (ILH), University of Stuttgart, Germany, [2]Fraunhofer Institute for Applied Solid State Physics (IAF), Germany	**EuMIC05-1** A 320 GHz 32×32 Pixel Near-Field Sensor SoC for Real-Time Imaging in 130-nm SiGe BiCMOS Hamadi Sadkaoui[1], Ullrich R. Pfeiffer[1], Xinpeng Du[1], Marcel Andree[1], Holger Rücker[2] **EuMIC CP nominee** [1]University of Wuppertal, [2]IHP - Leibniz-Institut für innovative Mikroelektronik
11:10 – 11:30	**EuMIC02-2** An Ultra-Compact Ku-Band Doherty Power Amplifier with a Single-Footprint Triple Two-Turn Asymmetric Combiner for 6G FR3 Jinglong Xu[1], Edward Liu[1], Mohamed Eleraky[1], Tzu-Yuan Huang[1], Chenhao Chu[1], Hua Wang[1] **EuMIC YEP nominee** [1]ETH Zurich, Switzerland	**EuMIC03-2** Linearity Enhancement of GaN LNA MMIC Using RF-based Approach of Derivative Superposition Sanaul Haque[1], Ralf Doerner[2], Serguei A. Chevtchenko[2], Matthias Rudolph[1] [1]Brandenburg University of Technology, [2]Ferdinand Braun Institut (FBH)	**EuMIC04-2** D-Band DPDT Switch with Reverse Saturated SiGe HBTs for Squint-Free Communication Systems Nicolò Moroni[1], Andrea Malignaggi[1], Corrado Carta[1] [1]IHP GmbH	**EuMIC05-2** Differential 45° Phase-shifted LO Signal Generation to Enable Subharmonic IQ Modulation for Broadband 6G Communication in the D-Band Jan Schöpfel[1], Tobias T. Braun[2], Marcel van Delden[2], Nils Pohl[3] [1]Fraunhofer FHR, [2]Ruhr University Bochum, [3]Ruhr University Bochum / Fraunhofer FHR
11:30 – 11:50	**EuMIC02-3** Design of a 5 W, 28-32 GHz Doherty Power Amplifier using 150-nm GaN Technology for 5G NR FR2 mmWave Communications Haftu Hiluf Kahsay[1], Pierre Medrel[1], Mohammed Ayad[2], Denis Barataud[1] [1]XLIM Laboratory, UMR CNRS n°7252, University of Limoges, [2]United Monolithic Semiconcuctors SAS	**EuMIC03-3** Switch-Integrated GaN LNAs: A Technology-focused Analysis Megha Krishnaji Rao[1], Petros Beleniotis[2], Thomas Hoffmann[1], Hossein Yazdani[3], Andreas Wentzel[1], Matthias Rudolph[2] [1]Ferdinand-Braun-Institut (FBH), Berlin, Germany, [2] Brandenburg University of Technology (BTU), Cottbus, Germany, [3]Paul Drude Institute for Solid State Electronics (PDI), Berlin, Germany	**EuMIC04-3** A 276-GHz Beamforming Transmitter in 16nm FinFET for Phased-Array Applications Runzhou Chen[1], Boxun Yan[1], Hao-Yu Chien[1], Mau-Chung Frank Chang[1] **EuMIC CP nominee** [1]University of California Los Angeles (UCLA)	**EuMIC05-3** Analysis and Development of a K-band GaAs MMIC Voltage Controlled Reflection Amplifier Suitable for Active Reconfigurable Intelligent Surfaces Giovanni Lasagni[1], Marco Badii[1], Giovanni Collodi[1], Stefano Maddio[1], Monica Righini[1], Alessandro Cidronali[1] [1]Università degli Studi di Firenze
11:50 – 12:10	**EuMIC02-4** Analog Predistorter for Millimeter-Wave Integrated Transmitters Implemented Using 22nm FDSOI Sauli Haukka[1], Jere Rusanen[1], Mikko Hietanen[1], Timo Rahkonen[1], Aarno Pärssinen[1], Janne P. Aikio[1] [1]University of Oulu (UOULU)	**EuMIC03-4** High Performance 6-18 GHz Broadband LNA Design Using Self-Bias Network Optimization Songjune Lee[1], Sunghyuk Kim[1], Wonwoo Seo[1], Dabin Kim[1], Min-Su Kim[2], Junghyun Kim[1] [1]Hanyang University ERICA Campus, [2]Mokpo National University	**EuMIC04-4** A 25 Gbps SiGe BiCMOS Quasi-Coherent Receiver Chip with Chromatic Dispersion Compensation for 5G and Beyond 5G Fronthaul Tom Keinicke Johansen[1], Michele Squartecchia[2], Guillermo Silva Valdecasa[1], Jose Altabas[2], Omar Gallardo[2], Jesper Bevensee Jensen[2] [1]Technical University of Denmark, [2]Bifrost Communications Aps.	**EuMIC05-4** Design and Wireless Characterisation of Cryogenic RF Oscillators Faedra Webers[1], Filip Tavernier[1], Patrick Reynaert[1] [1]KU Leuven MICAS
12:10 – 12:30	**EuMIC02-5** A Ka-Band SATCOM Analog Linearizer with IMD Self-Alignment on Rad-Hard SiGe-BiCMOS Stefan Koch[1], Michael Schick[2], Andreas Fischer[1], Christian Bohn[1], Michael Jutzi[1], Lars Baumgärtner[1], Alexander Scharpf[1], Johannes S. Reckter[1], Jon Schlipf[1], Björn Klingenberg[1] [1]Tesat-Spacecom GmbH & Co. KG, [2]Michael Schick SiGe mmic Design	**EuMIC03-5** A 121-141 GHz 6.3 dB NF D-Band Low Noise Amplifier in 22-nm FDSOI Samir Aziri[1], Waseem Abbas[1], Christoph Wagner[1], Hao Gao[2], Peter Baltus[2] [1]Silicon Austria Labs GmbH, [2]TU Eindhoven	**EuMIC04-5** Resistive D-Band Mixers with Monolithic Integrated Broadband IF Balun and LO Amplifier Patrick Umbach[1], Fabian Thome[1], Arnulf Leuther[1], Rüdiger Quay[1] **EuMIC YEP nominee** [1]Fraunhofer Institute for Applied Solid State Physics IAF	**EuMIC05-5** A 0.003-mm2 42.6-dB Gain Ultrawideband Inductor-Less LNA in 28-nm CMOS for Quantum Computing Readout Applications Mahesh Kumar Chaubey[1], Yin-Cheng Chang[2], Po-Chang Wu[2], Hann-Huei Tsai[2], Shawn S.H. Hsu[1] [1]National Tsing Hua University, [2]Taiwan Semiconductor Research Institute, National Applied Research Laboratories, Taiwan

MONDAY 13:50 – 15:30

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMIC06 Microwave and mm-Wave Integrated Power Amplifiers Chair: Nathalie Deltimple[1] Co-Chair: Piyush Kaul[2] [1]Bordeaux INP, IMS Laboratory, [2]Eindhoven University of Technology - TU/e	**EuMIC07** RF Building Blocks in CMOS and BiCMOS Technologies Chair: Aleks Dyskin[1] Co-Chair: Johan Bauwelinck[2] [1]Nvidia, [2]Ghent University - imec	**EuMIC08** mmWave Frequency Generation and Translation Chair: Ingmar Kallfass[1] Co-Chair: Frank E. van Vliet[2] [1]University of Stuttgart, [2]TNO Defense, Safety and Security	**EuMIC09** Emerging Architectures for Communications Chair: Cicero S. Vaucher[1] Co-Chair: Nils Pohl[2] [1]NXP / TU Delft, [2]Ruhr University Bochum
13:50 – 14:10	**EuMIC06-1** A Ku-Band CMOS Power Amplifier with Common-Mode Suppression Using Inter-Stage Transformer Donghwan Seo[1], Jaeyong Lee[2], Jinho Yoo[2], Changkun Park[2] [1]Agency for Defense Development, Republic of Korea, [2]Intelligent Microwave Systems Lab., Soongsil University, Republic of Korea	**EuMIC07-1** A 5–7 GHz BiCMOS Front-End Module for WiFi 6e with 2.2 dB NF and 16 dBm PAVG at -40 dB EVM Davide Pecile[1], Andrea Pollin[1], Daniele Dal Maistro[2], Alberto Gambarucci[2], Giuseppe De Astis[2], Andrea Bevilacqua[1] [1]University of Padova, [2]Infineon Technologies	**EuMIC08-1** A 114-169 GHz Compact, Power Efficient ×8 Frequency Multiplier in 40-nm CMOS DONG YEOL YANG[1], Jae-Hyun Park[2], SEUK WON KANG[1], Sungho Lee[3], Byung-Sung Kim[1] [1]Sungkyunkwan University, [2]Samsung Electronics, [3]Korea Electronics Technology Institute	**EuMIC09-1** Ultra-Wideband as The Next Ubiquitous Radio Mousumi Roy[1] **SESSION KEYNOTE** [1]Qorvo
14:10 – 14:30	**EuMIC06-2** A Dual-Drive Power Amplifier in 130 nm CMOS for Ku-Band Applications Arya Moradinia[1], Kshitij Mohan Krishnan[1], Ed Balboni[1], Edgar Garay[1] [1]Falcomm	**EuMIC07-2** X-Band CMOS Variable Gain Amplifier Using Mixed Structure of Variable Attenuation and Gain Stages with Impedance Buffer to Suppress Phase Variations for 6G Applications Yejin Kim[1], Dongin Min[1], Jaeyong Lee[1], Changkun Park[1] [1]Intelligent Microwave Systems Lab., Soongsil University, Republic of Korea	**EuMIC08-2** Ultra-Broadband Frequency Multiplier (x8) Chain in 90-nm SiGe BiCMOS Technology at H-band Frida Strömbeck[1], Herbert Zirath[1], Klaus Aufinger[2] [1]Chalmers University of Technology, [2]Infineon Technologies AG	**EuMIC09-2** An Analog Frontend for an Ultra Low Power Wakeup Receiver for On-Off Keying at 434 MHz with -94 dBm Input Sensitivity and 28 nW DC Power Consumption at 10 kbps Georg Meller[1], Michael Methfessel[2], Florian Protze[1], Maximilian Froitzheim[1], Jens Wagner[1], Gunter Fischer[2], Frank Ellinger[1] [1]Technical University Dresden, [2]IHP
14:30 – 14:50	**EuMIC06-3** 76 - 81 GHz Automotive Radar Power Amplifiers with High-Power High-Efficiency in 22-nm FD-SOI Liyou Lu[1], Chi Zhang[1], Nourhan Elsayed[1], Abdellatif Bellaouar[1] [1]Global Foundries	**EuMIC07-3** 19-31GHz Wideband Electrical Balance Duplexer For In-Band Full Duplex Communication Armen Harutyunyan[1], Padmanava Sen[1] [1]Barkhausen Institut gGmbH	**EuMIC08-3** An H-band sub-harmonically pumped up-converter mixer in 250 nm InP DHBT technology Yu Yan[1], Vessen Vassilev[1], Herbert Zirath[1] [1]Chalmers University of Technology	**EuMIC09-3** Enabling 2-D Beamforming for 6G Commmunication in the D-Band With a Scalable Transmitter MMIC Utilizing On-Chip Antennas Lasse Cordes[1], Jan Schöpfel[2], Hendrik Richter[3], Jonathan Bott[3], Nils Pohl[3], Tobias T. Braun[3] [1]Ruhr-Universität Bochum, [2]Fraunhofer Inst. High Freq. Phys. Radar Tech., [3]Ruhr Universität Bochum
14:50 – 15:10	**EuMIC06-4** A 200mW, high-gain GaN-based D-Band Power Amplifier for 6G Communication Applications Thomas Zieciak[1], Philipp Neininger[1], Christian Friesicke[1], Peter Brückner[1], Rüdiger Quay[1] **EuMIC CP nominee** [1]Fraunhofer IAF, Fraunhofer Institute for Applied Solid State Physics	**EuMIC07-4** A Cryogenic 30 Gb/s PAM3 BiCMOS Serializer for Josephson Arbitrary Waveform Synthesizer Yerzhan Kudabay[1], Paul Julius Ritter[1], Vadim Issakov[1] [1]Technische Universität Braunschweig	**EuMIC08-4** A Fully Integrated 100 GHz Phase-Locked Loop With 12% Tuning Range, 180-fs RMS Jitter in 22nm FDSOI Technology Nazmus Saquib[1], Mona M. Hella[1] [1]Rensselaer Polytechnic Institute	**EuMIC09-4** Multichannel LO Generation for Frequency-Interleaving Systems Christoph Herold[1], Andrea Malignaggi[1], Corrado Carta[1] [1] IHP - Leibniz-Institut für innovative Mikroelektronik
15:10 – 15:30	**EuMIC06-5** A 15-dB Dynamic Range 110-170 GHz AGC Loop for BIST Transmitter Power Monitoring Alper Guner[1], Batuhan Sutbas[1], Alper Karakuzulu[1], Corrado Carta[1], Mohamed Hussein Eissa[1] [1]IHP Microelectronics, Frankfurt Oder, Germany	**EuMIC07-5** A 2-to-1 PAM-4 Analog Multiplexer with Integrated Equalizer in 22nm FDSOI CMOS Khaled Matloub[1], Sorin P. Voinigescu[1] [1]University of Toronto	**EuMIC08-5** A Fundamental D-Band VCO in SiGe:C HBT Technology for Next-Generation Automotive Applications Ahmad Zaben[1], Christian Bredendiek[2], Stephan Hauptmeier[1], Klaus Aufinger[3], Nils Pohl[4] [1]Ruhr University Bochum, [2]Fraunhofer FHR, [3]Infineon Technologies AG, [4]Ruhr University Bochum / Fraunhofer FHR	**EuMIC09-5** Impact of Modulation Signals on Digital Self-Interference Cancellation in Amplitude Modulation Systems Alexander Ruderer[1], Fabian Lurz[1], Thomas Ussmueller[2] [1]Otto von Guericke University Magdeburg, [2]B & E antec Nachrichtentechnik GmbH

MONDAY 16:10 – 17:50

ROOM	Progress	Breakout Room 2

EuMIC10
EuMIC Foundry Panel

Chair: Patrick Reynaert[1]

Co-Chair: Piyush Kaul[2]

[1]KU Leuven ESAT-MICAS

[2]Eindhoven University of Technology

16:10 Session Welcome

16:20 Introductory Presentations by the Panel Members

- Christof Heer, TSMC Europe
- Patricie Merkert, Fraunhofer Institute for Applied Solid State Physics IAF
- Nadine Collaert, IMEC Leuven
- Alireze Shamsafar, Smart Photonics
- Pascal Oberndorff, NXP
- Gergory Clark, Qorvo

17:00 Panel Discussion

17:00 – 18:00 IEEE P1765 - Modulated Signal Measurement Uncertainty Working Group Meeting

TUESDAY 08:30 – 10:10

ROOM	Auditorium	Spark	Flash	Glow
	EuMC01 Advances in Passive Components and Structures Chair: Anthony Ghiotto[1] Co-Chair: Ke Wu[2] [1]University of Bordeaux, [2]Polytechnique Montreal	**EuMC02** Novel Antenna Solutions for Wireless Communications Chair: Gabriele Federico[1] Co-Chair: Francesco Caminita[2] [1]Eindhoven University of Technology, [2]Wave Up s.r.l.	**EuMC03** Sub-THz Antennas, Systems, and Measurements Chair: Joachim Oberhammer[1] Co-Chair: David Marpaung[2] [1]KTH Royal Institute of Technology, [2]University of Twente	**EuMC04** Advanced Interconnects and Packaging Technologies for Applications Beyond 100 GHz Chair: Aurelian Crunteanu[1] Co-Chair: Nadine Collaert[2] [1]Xlim - UMR 7252 - CNRS- University of Limoges, [2]imec
08:30 – 08:50	**EuMC01-1** Study and design of a dual-cavity differential resonant sensor for small liquid samples Houssem Eddine Rouached[1], Julien Swifka[2], Josephine Pichereau[2], Saber Dakhli[3], Fethi Choubani[1], Elodie Richalot[4] [1]Laboratoire Innov'Com (LR11TIC03), [2]LABORATOIRE ESYCOM, [3]CentraleSupélec, Université Paris-Saclay, [4]Laboratoire ESYCOM (UMR-9007)	**EuMC02-1** SatCom terminal based on rotating Metascreens with extreme control of grating lobes Francesco Caminita[1], Cristian Della Giovampaola[1], Massimo Nannetti[1], Gabriele Minatti[1], Nicola Bartolomei[1], Enrica Martini[2], Benedikt Byrne[3], Giovanni Toso[3], Stefano Maci[2] [1]Wave Up s.r.l., [2]University of Siena, [3]ESTEC (European Space Agency)	**EuMC03-1** A 58 Gb/s D-band NLOS link enabled by active RIS Jose Luis Gonzalez-Jimenez[1], Alexandre Siligaris[1], Abdelaziz Hamani[1], Antonio Clemente[1], Francesco Foglia Manzillo[1], Cédric Dehos[1], Jean-Baptiste Doré[1], Nicolas Cassiau[1] **EuMC CP nominee** [1]CEA Leti, Univ. Grenoble Alpes, F 38000 Grenoble, France	**EuMC04-1** Waferscale RF Silicon Interposer Packaging Technology for mm-Wave and Sub-THz Applications Siddhartha Sinha[1] **INDUSTRIAL KEYNOTE** [1]IMEC
08:50 – 09:10	**EuMC01-2** Miniaturized 1-to-4 In-Phase/ Out-of-Phase Power Splitter Using Fully-Packaged Hybrid SIDGS/ CPWG Scheme With Wide Isolation Bandwidth Qiqi Luo[1], Jie Zhou[1], Xun Luo[1] [1]University of Electronic Science and Technology of China	**EuMC02-2** The Implementation and Measurement of A mm-wave 60 GHz LCP Short Range Communication Module Wei-Ting Lee[1], Chih-Yang Lou[1], Sin-Siang Wang[1], Chu-Yu Chen[2] [1]QuantumZ Inc., [2]National University of Tainan	**EuMC03-2** 140 GHz Wide Scan Lens Antenna Design Jinglin Geng[1], Nuria LLombart Juan[1], Waqas Syed[2], Giorgio Carluccio[2], Harish Nandagopal[2], Maria Alonso del Pino[1], Kostas Doris[2], Daniele Cavallo[1] [1]Delft University of Technology, [2]NXP Semiconductors	**EuMC04-2** An Ultra-Broadband Flip-Chip Interconnect Based on Flexible Polymer Foil from DC up to 240 GHz Johannes Fleischmann[1], Andre Scheder[1], Stefan Sohr[2], Anna Bridier[2], Doris Aigner[2], Martin Vossiek[1] **EuMC CP nominee** [1]Friedrich-Alexander Universität Erlangen-Nürnberg, [2]Rohde und Schwarz GmbH
09:10 – 09:30	**EuMC01-3** Enhanced Robustness in Wideband Rectangular Waveguide-to-Substrate-Integrated Waveguide Transition Using Dielectric Superstrate Samuel Rimbaut[1], Kamil Yavuz Kapusuz[1], Hendrik Rogier[1], Sam Lemey[1] [1]Ghent University -imec, IDLab – Electromagnetics Research Group	**EuMC02-3** Fluidically Tunable Liquid Metal Antenna for Small Satellite Communication Applications Hao Huang[1], Jian Wang[1], Xin Zhao[1], Bin Yan[1], Ling Meng[1], Ming Tang[1], Lu Cao[1] [1]Academy of Military Sciences	**EuMC03-3** Design and Optimization of a Conformal Lens for a sub-THz Leaky-Wave Antenna Akanksha Bhutani[1], Joel Dittmer[1], Georg Gramlich[1], Luca Valenziano[1], Sebastian Randel[1], Thomas Zwick[1] [1]Karlsruhe Institute of Technology (KIT)	**EuMC04-3** Dielectric Waveguide-Based Interconnects for Integrated mm-Wave and Terahertz Systems Ashish Kumar[1], Muhsin Ali[2], Daniel Headland[3], Alejandro Rivera[2], Guillermo Carpintero[1] [1]Universidad Carlos III de Madrid, [2]Leapwave Technologies SL, [3]The University of Adelaide, Adelaide
09:30 – 09:50	**EuMC01-4** A Compact Digitally Tuned Capacitor with Improved Tuning Range for mmWave applications Arul Balasubramaniyan[1], Miguel Meza Campos[1], Abdellatif Bellaouar[1] [1]Global Foundries, USA	**EuMC02-4** X-Band Power Divider Based Phase Shifter Zehan Guo[1], Padraig Fitzgerald[2], Dimitra Psychogiou[3] [1]Tyndall National Institute, [2]Analog Devices, Inc., [3]University College Cork	**EuMC03-4** Miniaturized Orthomode Transducer with Layered Structure for D-band Klas Eriksson[1] [1]Ericsson Research, Ericsson AB	**EuMC04-4** A 300 GHz Bond-Wire Interconnect Solution for Heterogeneous System Integration Luca Valenziano[1], Joachim Hebeler[2], Yiyang Bao[1], Christian Koos[1], Thomas Zwick[1], Akanksha Bhutani[1] [1]Karlsruhe Institute of Technology, [2]Rohde & Schwarz GmbH
09:50 – 10:10	**EuMC01-5** Frequency Tunable Circulator Using Spatiotemporal Modulation of Mixed Static and Time-Modulated Resonators Girdhari Chaudhary[1], Palaystint Thorng[1], Suyeon Kim[1], Yongchae Jeong[1] [1]Jeonbuk National University, South Korea	**EuMC02-5** SAID Fiber-Antenna Radio Head at 50 GHz Sara Vega[1], María C. Santos[1], Youssra Sadki[1], Sebastian Lauck[2], Garrit Schwanke[2], Simon Nellen[2], Robert B. Kohlhaas[2], Lluís Jofre-Roca[1] [1]Universitat Politècnica de Catalunya (UPC), [2]Fraunhofer Heinrich Hertz Institute	**EuMC03-5** D-Band Wideband Phase Noise Reduction Utilizing Multiple Receivers with LO Delay Difference Dedar Rashid[1], Bilal Khan[1], Marko E. Leinonen[1], Aarno Pärssinen[1], Nuutti Tervo[1] [1]Centre for Wireless Communications - Radio Technologies (CWC-RT), University of Oulu	**EuMC04-5** Design of D-Band MMIC-WG Contactless Transition Based on Silicon Process Haojie Chang[1], Vessen Vassilev[1], Omid Habibpour[1], Herbert Zirath[1] [1]Chalmers University of Technology

TUESDAY 08:30 – 10:10

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMIC/EuMC01 Load-Modulated High-Efficiency Power Amplifiers Chair: José Carlos Pedro[1] Co-Chair: Mark Ingels[2] [1]instituto de telecomunicaçeos, University of Aveiro, [2]imec, Leuven	**EuMIC11** GaN Amplifiers from VHF to V-band Chair: Rocco Giofrè[1] Co-Chair: Konstantinos Mimis[2] [1]Università di Roma Tor Vergata, [2]Sony Europe B V	**EuMIC12** mmWave Amplifiers and Components Chair: Piyush Kaul[1] Co-Chair: Benjamin Schoch[2] [1]Eindhoven University of Technology - TU/e, [2] University of Stuttgart, Institute of Robust Power Semiconductor Systems	**EuMIC13** RF and Millimeter-Wave Devices Chair: Dusan Milosevic[1] Co-Chair: Aleksander Bogusz[2] [1]Eindhoven University of Technology, [2]Cardiff University
08:30 – 08:50	**EuMIC/EuMC01-1** RF-Input Sequential Circulator Load Modulated Amplifier with Back-Off Efficiency Enhancement Han Zhou[1], Haojie Chang[1], Christian Fager[1] [1]Chalmers University of Technology	**EuMIC11-1** 100W and 80% Efficiency GaN PA for VHF Space-Borne Earth Sensing Applications Francesco Manni[1], Paolo Colantonio[1], Gianni Bosi[2], Francisco de Arriba[3], Lorena Cabria[3], Reinel Marante[3], Antonio Raffo[4], Giorgio Vannini[4], Rocco Giofrè[1] [1]Electronic Engineering Department, University of Rome "Tor Vergata", Rome-Italy, [2]University of Milano-Bicocca, [3]TTI Norte, Santander, [4]University of Ferrara	**EuMIC12-1** A 35-170 GHz Ultrawideband Distributed Power Amplifier with >16% Peak PAE and 14 dBm Peak Output Power in InP DHBT Technology Tanjil Shivan[1], Maruf Hossain[1], Tom Keinicke Johansen[2], Ralf Doerner[1], Hady Yacoub[1], Wolfgang Heinrich[1], Viktor Krozer[1] [1]FBH, Leibniz Institut für Höchstfrequenztechnik, [2]Technical University of Denmark	**EuMIC13-1** RF Performance of CMOS Technology Passive Devices using 3D Hybrid Bonding Interconnections at mm-Wave Frequencies Mohammad Alsukour[1], Olivier Valorge[1], Margot Faure[1], Loic Sanchez[1], Cédric Durand[2], Victor Milon[3], Loic Vincent[4], Daniel Gloria[3], Pascal Chevalier[3], Emmanuel Pistono[5], Jean-Daniel Arnould[4], Christophe Dubarry[1] [1]CEA - LETI, [2]ST Microelectronics, [3]STMicroelectronics, [4]Grenoble-inp/University Grenoble Alpes , [5]University of Grenoble Alpes (UGA)
08:50 – 09:10	**EuMIC/EuMC01-2** A Single-Driver Doherty Power Amplifier Module with Harmonic Load Insensitivity Ioannis Peppas[1], Mustazar Iqbal[2], Marco Pitton[2], Peter Singerl[2] [1]Graz University of Technology/ IHF- TU Graz, [2]Infineon Technologies Austria AG, Villach, Austria	**EuMIC11-2** S-band 600 W Power Amplifier MMIC in 0.5 µm GaN High Voltage Technology Gijs van der Bent[1], Marc van Heijningen[1], Sebastian Krause[2], Peter de Hek[1], Frank E. van Vliet[1] [1]TNO, [2]Fraunhofer Institute for Applied Solid State Physics IAF, Germany	**EuMIC12-2** Current/Voltage Mode VCSEL Drivers with Tunable Pre-emphasis for Large Temperature Range Stavros Giannakopoulos[1], Siavash Mowlavi[2], Lars Svensson[2] [1]SiNIX GROUP AB, [2]Chalmers University of Technology	**EuMIC13-2** A Digitally Reconfigurable Shunt Capacitance in RF GaN Technology Based on Inter-Finger Capacitors Alessandro Chillico[1], Sophie Paul[1], Bernd Janke[1], Serguei A. Chevtchenko[1], Wolfgang Heinrich[1], Patrick Scheele[1], Olof Bengtsson[1] [1]Ferdinand Braun Institut gGmbH (FBH), Leibniz Institut für Höchstfrequenztechnik
09:10 – 09:30	**EuMIC/EuMC01-3** GaN-Based Digital Class-E Doherty Power Amplifier for 5G FR1 Frequency Band Giulia Bartolotti[1], Anna Piacibello[1], Vittorio Camarchia[1], Deguang Sun[2], Thomas Hoffmann[2], Andreas Wentzel[2] [1]Politecnico di Torino, [2]Ferdinand-Braun-Institut (FBH)	**EuMIC11-3** A 4-18 GHz Non-uniform Distributed Power Amplifier in Leonardo's 150-nm GaN-on-SiC Process Technology Alfonso Ferreras[1], Marta Ferreras[2], Álvaro Prieto[1], Javier Montero-de-Paz[1], Jesús Grajal[2], Juan José Sánchez-Martínez[1] [1]Indra Sistemas S.A., [2]Universidad Politécnica de Madrid	**EuMIC12-3** 105 GHz Triple-Stack Distributed Amplifier in a 0.1 µm Commercial GaAs process Jakov Mihaljevic[1], Andrew Jones[1], Evan Shelley[1], Simon J. Mahon[1], Melissa Gorman[1] [1]Macquarie University	**EuMIC13-3** A Highly Compact and Broadband Wilkinson Combiner for Automotive Radar Bas van de Ven - van der Zanden[1], Marion K. Matters-Kammerer[1] [1]Eindhoven University of Technology (TU/e)
09:30 – 09:50	**EuMIC/EuMC01-4** High Efficiency 2-Stage MMIC GaN Doherty Power Amplifiers with more than 38 % Fractional Bandwidth in C Band Victor Dufrene[1], Wilfried Demenitroux[1], Michel Campovecchio[2], Denis Barataud[2], Julien Ceugnard[3], Pablo Rochas[3], Olivier Jardel[3], Pierre-Yves Mailloux[1], Nicolas Berthou[1] [1]Thales SIX GTS, [2]XLIM Laboratory, UMR CNRS n°7252, [3]Thales Alenia Space	**EuMIC11-4** Gallium Nitride switchless PALNA MMIC operating at Ka-band showing typical 31 dBm output power and 4.5 dB noise figure Patrick Ettore Longhi[1], Walter Ciccognani[2], Sergio Colangeli[2], Antonio Serino[2], Ernesto Limiti[2] [1]University of Roma Tor Vergata, [2]Università di Roma "Tor Vergata"	**EuMIC12-4** Influence of Phased Array Antenna Impedance on a 40-100 GHz Active Circulator in Commercial GaAs Simon J. Mahon[1], Andrew Jones[1], Melissa Gorman[1] [1]Macquarie University	**EuMIC13-4** 80 GHz Stable Amplifier utilizing the Standing-Wave Controlled Gate Structure Shinji Hara[1], Keiichi Sakuno[1] [1]Nagoya University
09:50 – 10:10	**EuMIC/EuMC01-5** Design of a Fast-Switchable Three-Stage GaN Doherty PA for High DC-to-RF Efficiency Maximilian Gottfried Becker[1], Robert Krämer[1], Marco Gunia[1], Frank Ellinger[1] [1]TU Dresden	**EuMIC11-5** A V-Band (61-72 GHz) GaN HEMT High-Power Amplifier Moise Safari Mugisho[1], Christian Friesicke[1], Sandrine Wagner[1], Rüdiger Quay[1] [1]Fraunhofer IAF	**EuMIC12-5** D-Band High-Gain Low-Power Phase Shifter for Transmitarray Dristy Parveg[1], Jaakko Haarla[1], Arto Rantala[1], Antti Lamminen[1], Mikko Kantanen[1], Mikko Varonen[1] [1]VTT Technical Research Centre of Finland	**EuMIC13-5** Low Phase-Noise THz-Generation using SiN Kerr Microrings and MUTC-Photomixers Marcel Grzeslo[1], Jonas Tebart[2], Yilmaz Uçar[1], Shuya Iwamatsu[1], Thomas Haddad[2], Sumer Makhlouf[2], Andrej Lavrič[3], Andreas Stöhr[1] [1]Microwave Photonics GmbH, [2]Department of Optoelectronics, University of Duisburg-Essen, Duisburg, Germany, [3]University of Ljubljana

TUESDAY 09:30 – 10:10

ROOM **Media Arena**

EuMIC/EuMC-PP

1-Minute Poster Pitch: EuMIC/EuMC

Chair: Mark S. Oude Alink[1]

Co-Chair: Piyush Kaul[2]

[1]University of Twente, [2]Eindhoven University of Technology - TU/e

09:30 – 10:10

1-Minute Poster Pitch: EuMIC/EuMC

NEW at EuMW: 1-Minute Poster Pitches! Join us for this exciting and fast-paced new format in which posters are pitched in a maximum of one minute. In this session, the posters of EuMIC/EuMC03 will be pitched.

TUESDAY 10:50 – 12:30

ROOM **Beatrix Theatre**

EuMW01
EuMW/EuMC Opening

Chair: Mark Bentum[1]

Co-Chair: Ioan E. Lager[2]

[1]Eindhoven University of Technology (TU/e), [2]Delft University of Technology

10:50 – 10:55 Welcome Address: Opening of the European Microwave Week 2025

Mark Bentum[1]

[1]Eindhoven University of Technology (TU/e)

10:55 – 11:05 EuMA Welcome Address

Frank van den Bogaart[1]

[1]EuMA President

11:05 – 11:10 Greetings from the IEEE MTT-S

Goutam Chattopadhyay[1]

[1]NASA-Jet Propulsion Laboratory, California Institute of Technology

11:10 – 11:15 Greetings from the EuMW 2025 Platinum Sponsor

Thierry Locquette[1]

[1]Keysight EMEA VP and GM at Keysight

11:15 – 11:20 Technical Program of EuMW 2025

Diego Caratelli[1]

[1]Eindhoven University of Technology (TU/e)

11:20 – 11:35 Surprise Act

11:35 – 12:20 Antenna and Over-The-Air Measurement Innovation Enabling Next-Gen Wireless Systems – Our Journey in the Last Decade and the Road Ahead

Benoit Derat[1]

[1]Rohde & Schwarz GmbH & Co. KG

In today's hyper-connected world—shaped by 5G / 6G, connected cars, Internet of Things (IoT), and other Non-Terrestrial Networks (NTN)—wireless communication is no longer a convenience but a fundamental enabler of our daily lives. As everything becomes increasingly wireless and over-the-air (OTA), the demand for accurate and comprehensive testing of wireless systems has never been greater.

The ongoing trend toward higher density electronic and mechanical integration has driven a paradigm shift in testing methodologies. Traditional conducted measurements are giving way to OTA testing, which provides a holistic view of the full transceiver system performance in realistic operational conditions. This shift has required significant innovation in antenna design, measurement techniques, and test environments to capture the complex behavior of wireless devices ´ – while controlling test system cost and size.

In this keynote, we will explore the recent the technological advances and inventions that have made modern OTA measurements both possible and indispensable. We will also discuss how evolving measurement instrumentation and antenna test technologies are paving the way for new testing principles, enabling more efficient and insightful validation processes.

Furthermore, the increasing demand for earlier ("shift-left") testing in more realistic scenarios is driving the convergence of measurement and environment emulation / simulation technologies.

Looking ahead, what is the next frontier in OTA testing? How can we innovate to keep pace with evolving wireless standards, diverse use cases, and stringent performance demands? This talk will highlight emerging trends and research directions poised to extend OTA measurement capabilities—accelerating time-to-market, boosting performance, and expanding test coverage for wireless components and systems.

12:20 – 12:30 Awards Ceremony

Frank E. van Vliet[1]

[1]TNO Defense, Safety and Security

TUESDAY 13:50 – 15:30

ROOM	Spark	Flash	Mission 2	Quest
	EuMC05 Special Session: Antenna Challenges and Solutions for 6G Mobile Connectivity Chair: Yvonne Weitsch[1] Co-Chair: Matthias Geissler[2] [1]Rohde & Schwarz International GmbH, [2]IMST GmbH	**EuMC06** Cryogenic Applications of RF Technologies Chair: Fabio Sebastiano[1] Co-Chair: Marco Spirito[1] [1]Delft University of Technology	**EuMIC14** mm-Wave GaN Technology Chair: Chong Li[1] Co-Chair: Jan Grahn [2] [1]University of Glasgow, [2]Chalmers University of Technology	**EuMIC15** Characterization, Modelling, and Simulation of Devices and Circuits Chair: Teresa M. Martín-Guerrero[1] Co-Chair: Ernesto Limiti[2] [1]Universidad de Málaga, [2]University of Rome Tor Vergata
13:50 – 14:10	**EuMC05-1** Link Budget for Direct to Cell Georg Strauß[1] [1]Munich University of Applied Sciences	**EuMC06-1** Low-Temperature Superconducting MMIC Diplexers for RF Quantum AC-Voltage Standards Abdulrahman Widaa[1], Oliver Kieler[1], Frauke Gellersen[1], Michael Haas[1], Johannes Kohlmann[1], Mark Bieler[1] [1]Physikalisch-Technische Bundesanstalt	**EuMIC14-1** High-Power and Low-Noise AlN/GaN/AlGaN-on-Si HEMT Technology for Low-Voltage mm-Wave Monolithically Integrated "..." Yihao Zhuang[1], Hanchao Li[1], Qingyun Xie[2], Siyu Liu[1], Zhongzhiguang Lu[1], Pengju Cui[1], Hanlin Xie[2], Ameera Nur[3], Xavier Teo Leng Seah[3], Stefan Degroote[3], Marianne Germain[3], Yuanjin Zheng[1], Geok Ing Ng[1] **EuMIC CP & YEP nominee** [1]Nanyang Technological University, [2]Agency for Science, Technology and Research (A*STAR), [3]Soitec	**EuMIC15-1** Development of a GaAs Stacked Cells based on Common-Gate Model Extraction Procedure Negar Choupan[1], Valeria Vadalà[1], Gianni Bosi[1], Marco Pirola[2], Chiara Ramella[2] [1]University of Milano-Bicocca, [2] Politecnico di Torino
14:10 – 14:30	**EuMC05-2** Automotive Connectivity in the 3D Network of 6G Matthias Geissler[1] [1]IMST GmbH	**EuMC06-2** Model Parameter Estimation of Passive Components at Millikelvin Temperatures for Cryogenic Microwave Circuit Design Nicole Zocher[1], Martin Vossiek[1], Christian Carlowitz[1] [1]Friedrich-Alexander Universität Erlangen-Nürnberg	**EuMIC14-2** High efficiency and high linearity 70 nm GaN technology for future SatCom applications Philipp Döring[1], Peter Brückner[1], Sebastian Krause[1], Thomas Maier[1], Rüdiger Quay[1] [1]Fraunhofer IAF, Fraunhofer Institute for Applied Solid State Physics	**EuMIC15-2** Error Term Analysis in 16-Term Calibration: Enhancing SiGe HBT S-Parameter Accuracy up to 330 GHz Tarek Bouzar[1] [1]Laboratoire IMS, CNRS UMR, 5218, Université de Bordeaux, Bordeaux INP, Talence Cedex, France
14:30 – 14:50	**EuMC05-3** Comparative Analysis of Antenna Technologies for High Data Rate CubeSat Communication Hans Adel[1], Armin Fischer[1], Noah Sielck[1], Christian Steinmetz[1], Frank Mayer[1] [1]Fraunhofer IIS/EAS	**EuMC06-3** A 45.4-dB Gain Gm-Boosting Triple Noise-Canceling LNA in 28-nm CMOS for Spin Qubit Readout Mahesh Kumar Chaubey[1], Yin-Cheng Chang[2], Po-Chang Wu[2], Hann-Huei Tsai[2], Shawn S.H. Hsu[1] **EuMC YEP nominee** [1]National Tsing Hua University, [2]Taiwan Semiconductor Research Institute, National Applied Research Laboratories, Taiwan	**EuMIC14-3** GH10-UMS 100 nm GaN Technology Samira Driad[1], Manfred Madel[2], Linh Trinh-Xuan[3], Pierre Denis[2], Alexandre Bessemoulin[4], Gregory D. U'Ren[5], R Pecheux[3], R Arouri[3], Jonathan Leroy[3], Valeria Di Giacomo-Brunel[4], Hermann Stieglauer[5], Hervé Blanck[3] [1]United Monolithic Semiconducter, [2]United Monolithic Semiconductors GmbH, [3]United Monolithic Semiconductor, [4]United Monolithic Semiconductors, [5]UMS GmbH	**EuMIC15-3** Measured and Simulated Linearity Metrics Comparison of a Pre-Matched AlGaN/GaN HEMT at 29 GHz José Anderson Silva Dos Santos[1], Julien alleman[1], Margot LEVENTOUX[1], Pierre Medrel[2], Christophe Chang[3], Raphaël SOMMET[1], Fabien COURRÈGES[1], Jean-Christophe Nallatamby[1] [1]XLIM - Campus Universitaire de Brive, [2]XLIM - Université de Limoges, [3]United Monolithic Semiconcuctors SAS
14:50 – 15:10	**EuMC05-4** Reducing Cost and Complexity of User Terminal Antennas for Satcom-on-the-Move Applications Stefano Caizzone[1], Aparna P.T. Adithyababu[1], Simon P. Hehenberger[1] [1]German Aerospace Center (DLR), Oberpfaffenhofen, Germany.	**EuMC06-4** Enhanced Multi-Band Reception with MGT-based PAM4 All-Digital Receivers Jose Domingues[1], Samuel Pereira[1], Luís Almeida[1], Hugerles Silva[1], Arnaldo Oliveira[1], Nuno Borges Carvalho[1] [1]Instituto de Telecomunicacoes - Universidade de Aveiro	**EuMIC14-4** Large-signal Performance Comparison of Ion Implant and Mesa Etch Isolated AlGaN/GaN HEMT Switches on Silicon Arthur Collier[1], Abdalla Eblabla[1], Wesley Sampson[1], Daniel Shepphard[2], Alan Harvey[2], Roberto Quaglia[1], Khaled Elgaid[1] [1]Cardiff University, [2]Leonardo UK	**EuMIC15-4** Field Plate Engineering for FETs using 1-D Model Ahmad Shafiei Alavijeh[1], Kenji Vitória Morimoto[1], Luís Cótimos Nunes[1], José Carlos Pedro[1] [1]Instituto de Telecomunicaçeos
15:10 – 15:30	**EuMC05-5** Advancing Connectivity: Testing and Technologies for Electronically Steered Array Antennas in Future 3D Networks Yvonne Weitsch[1] [1]Rohde & Schwarz International GmbH	**EuMC06-5** Simulation-Based Verification of Radiometer Measurements for Human Subjects Lukas Furtmüller[1], Michael Winklehner[1], Florian Lehner[1], Stefan Schuster[2], Stefan Scheiblhofer[2], Andreas Stelzer[1], Reinhard Feger[1] [1]Institute for Communications Engineering and RF-Systems / Johannes Kepler University Linz, [2]voestalpine Stahl GmbH	**EuMIC14-5** Characterization and Modeling of the 3D Integration Effects on GaN-on-Si-Based HEMTs for "..." Mohammed Medbouhi[1], G. Palomino-Marcelo[2], O. Valorge[3], C. Dubarry[3], M.-L. CALVO-MUNOZ[3], R. FRANIATTE[3], D. MERMIN[4], R. VELARD[3], Y. Gobil[3], F.Morisot[3], A. L. C. Serrano[4], R. G. Pamplona[4], E. Morvan[3], J. Lugo-Alvarez[3], P. Ferrari[2] [1]CEA-LETI UGA, [2]TIMA Laboratory, Grenoble INP, CNRS, University of Grenoble Alpes, [3]CEA - LETI, [4]Universidade de Sao Paulo	**EuMIC15-5** Stability Envelope Using Nodal Transfer Functions Thomas Winslow[1] [1]MACOM

TUESDAY 13:50 – 15:30

These posters will have 1-minute pitches in EuMIC/ EuMC-PP on Tuesday morning!

Hall 7

EuMIC/EuMC03

EuMIC/EuMC Interactive Poster Session

Chair: Piyush Kaul[1]

Co-Chair: Mark S. Oude Alink[2]

[1]Eindhoven University of Technology - TU/e, [2]University of Twente

EuMIC/EuMC03-1
X-Band GaN Low Noise Amplifier with Oscillation Suppression Techniques

Bohyeon Kim[1], Hyojin Yoon[1], Jaeyong Lee[1], Changkun Park[1]

[1]Intelligent Microwave Systems Lab., Soongsil University, Republic of Korea

EuMIC/EuMC03-2
Interference and Blockage Mitigation Through Direct RF System-on-Chip Receiver

Francesco Raimondo[1], Xiaoqiang Gu[1], Mark Beach[1]

[1]University of Bristol

EuMIC/EuMC03-3
An Integrated W-Band Dual-Polarization Receiver Front-End Featuring Ultra-Low Noise Figure

Philipp Neininger[1], Fabian Thome[1], Sébastien Chartier[1], Ralf Henneberger[2], Bertrand Thomas[3], Oilid Bouzekri[3], Elodie Richard[3]

[1]Fraunhofer Institute for Applied Solid State Physics IAF, [2]RPG Radiometer Physics GmbH, [3]ESA ESTEC

EuMIC/EuMC03-4
GaN/Si 26-30 GHz T/R Chip MMIC for 5G Communications

Ahmad AL HAJJAR[1], Valentin Deremaux[1], Majid ElKaamouchi[2]

[1]MACOM Technology Solutions, [2]Macom

EuMIC/EuMC03-5
Design of High-Power Harmonic Controlled Doherty Power Amplifier Using Internally Matched 350-W GaN HEMT for RF Plasma Source

Jisu Park[1], Minjae Ahn[1], Dongsu Kim[2], Yunsik Park[2], Hyunchul Ku[1]

[1]Konkuk University, Republic of Korea, [2]Korea Electronics Technology Institute, Republic of Korea

EuMIC/EuMC03-6
Active RIS Element in Ka-band Based on Slot Antennas and 1-bit Digital Phase Shifter: a Novel Dual Input SiGe BiCMOS Low Noise Amplifier Implementation

Roberto Vincenti Gatti[1], Giulio Brancali[1], Ethan Bernardini[1], Guendalina Simoncini[1], Giacomo Schiavolini[1], Giulia Orecchini[1], Federico Alimenti[1]

[1]University of Perugia

EuMIC/EuMC03-7
Frequency-Dependent Power Consumption Modeling of CMOS Transmitters for WNoC Architectures

Mohammad Shahmoradi[1], Korkut Kaan Tokgöz[2], Eduard Alarcón[1], Sergi Abadal[1]

[1]Universitat Politècnica de Catalunya UPC-Barcelona Tech., [2]Sabanci University

EuMIC/EuMC03-8
An Iterative Electro-Thermal Model for An Active Antenna Element and Its Application to Arrays

Feza Turgay Celik[1], Christian Fager[2], Alexander Yarovoy[1], Yanki Aslan[1]

[1]TU Delft, MS3, [2]Chalmers University of Technology, Sweden

EuMIC/EuMC03-9
A 9 W Low-Cost GaAs MMIC Power Amplifier for X-Band Communications

Carlo Poledrelli[1], Michael Ciardullo[1], Joseph Merenda[1]

[1]Mini-Circuits

EuMIC/EuMC03-10
A 0.4-2 GHz MMIC LNA with Integrated Limiter

Sergio Colangeli[1], Antonio Serino[1], Patrick Ettore Longhi[1], Walter Ciccognani[1], Francesco Vitulli[2], David Cuadrado-Calle[3], Valerie Dutto[3], Ernesto Limiti[1]

[1]University of Roma Tor Vergata, [2]Thales Alenia Space Italia, [3]European Space Agency, European Space Research and Technology Centre

EuMIC/EuMC03-11
X-Band Asymmetric GaN HEMT SPDT Switch Using LC Resonator and Quarter-wave Stub for High Power Handling Capability and High Isolation

Seungjong Moon[1], Jaehyun Kwon[1], Jaeyong Lee[1], Changkun Park[1]

[1]Intelligent Microwave Systems Lab., Soongsil University, Republic of Korea

EuMIC/EuMC03-12
Thermal Resistance Estimation for AlGaN/GaN HEMTs with Trapping Effects

Zhijian Yu[1], Amir Mirza Gheytaghi[1]

[1]Ampleon

EuMIC/EuMC03-13
Machine Learning Assisted Design of Frequency Variants of Low-Noise Amplifiers Using Hybrid of NN with Bayesian Optimization

Mikko Kaikkonen[1], Sumra Batool[1], Muditha Ranaweera[1], Janne P. Aikio[1], Timo Rahkonen[1], Mikko Hietanen[1], Olli Kursu[1], Olli Silvén[1], Aarno Pärssinen[1]

[1] University of Oulu

EuMIC/EuMC03-14
mm-Wave CMOS Layout Optimization and Accurate Noise Deembedding for Super-300GHz fMAX and Minimum Noise

Jyh-Chyurn Guo[1], Adhi Cahyo Wijaya[1], Jinq-Min Lin[1]

[1]National Yang Ming Chiao Tung University

EuMIC/EuMC03-15
50 nm InP HEMTs with Tgates Fabricated by Single-Step Electron Beam Lithography for High-Frequency Application

Huihua Cheng[1], Long Jiang[2], Afesomeh Ofiare[1], Jichun Shi[1], Taiyu Ju[1], William McGenn[2], Danielle George[2], Chong Li[1]

[1]University of Glasgow, [2]University of Manchester

EuMIC/EuMC03-16
Ka-Band True Time Delay in a 130-nm SiGe-BiCMOS Technology for Phased-Array Applications

Lukas Schmitz[1], Olaf Saalmann[2]

[1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR), [2]Fraunhofer FHR, Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR

These posters will have 1-minute pitches in EuMIC/ EuMC-PP on Tuesday morning!

EuMIC/EuMC03-17
A 28-nm CMOS D-Band Passive Modulator Achieving 43-dB Image Rejection Ratio

Tian-Wei Huang[1], Kai-Jie Chuang[1], Kin-Ping Tang[1], Yi-Wen Wang[1], Ting-Yu Chang[1], Jeng-Han Tsai[2]

[1]National Taiwan University, [2]National Taiwan Normal University

EuMIC/EuMC03-18
A Millimeter-Wave Ultralow-Power Injection-Locked Frequency Divider with Dual-Mixing Technique in 90-nm CMOS Process

Sheng-Chun Chen[1], Chau-Ching Chiong[2], Yunshan Wang[1], Huei Wang[1]

[1]National Taiwan University, [2]Institute of Astronomy and Astrophysics, Academia Sinica, Taiwan

EuMIC/EuMC03-19
Design of an X-Band Low Noise Amplifier with Integrated Limiter for Front-End Modules

Tan Do[1]

[1]Viettel

EuMIC/EuMC03-20
A DC to 17 GHz Area-Efficient VGA with 20 dB Linear dB Tuning Range in 22 nm FDSOI

Kai Scheller[1], Andre Engelmann[1], Philip Hetterle[1], Jens Löffler[1], Robert Weigel[1], Albert-Marcel Schrotz[1], Norman Franchi[1]

[1]Friedrich-Alexander Universität Erlangen-Nürnberg

EuMIC/EuMC03-21
Dual-Band Techniques in A 79/135 GHz Power Amplifier in 28nm Bulk CMOS

Yiqin Hou[1], Alexander Rainier van Dommele[1], Evangelos Zaoutis[1], Dusan Milosevic[1], Vojkan Vidojkovic[1]

[1]Eindhoven University of Technology

EuMIC/EuMC03-22
Integrated Time Domain Multiplexer for Superconducting Qubit Control at Millikelvin Temperatures

Vanessa Wirth[1], Sascha Breun[1], Jens Löffler[1], Manuel Koch[1], Michael Loose[1], Marco Dietz[1], Christian Carlowitz[1], Robert Weigel[1], Norman Franchi[1]

[1]Friedrich-Alexander Universität Erlangen-Nürnberg

TUESDAY 13:50 – 15:30

ROOM

Expedition

EuMIC16
Wideband and mm-Wave Building Blocks

Chair: Vojkan Vidojkovic[1]

Co-Chair: Vadim Issakov[2]

[1]Eindhoven Univeristy of Technology, [2]Institute for CMOS Design, Technical University Braunschweig

13:50 – 14:10 **EuMIC16-1**
V-Band InAlN/GaN/SiC MMIC Amplifier Embedded by Fan Out Wafer Level Packaging Technology

Stéphane Piotrowicz[1], Mohamed Bouslama[1], Sébastien Aroulanda[1], Linh Trinh-Xuan[2], Louiza Hamidouche[1], Jean-Claude Jacquet[1], Anass Jakani[1], Quentin Lévesque[1], Romain Mathieu[2], Mourad Oualli[1], Jesse Riedl[2], Benoit Lambert[2], Gildas Gauthier[1]

[1]III-V Lab, [2]UMS - United Monolithic Semiconductors

14:10 – 14:30 **EuMIC16-2**
RF Front-End Building Blocks for 6G cmWave Radio Base Station in 300 mm GaN-on-Si Technology

Örjan Renström[1], Olle Axelsson[1], Olov Haapalahti[1], Henrik Felding[1], David Gustafsson[1], Kristoffer Andersson[2], Jag Rangaswamy[3], Marko Radosavljevic[3], Han Wui Then[3]

[1]Ericsson AB, [2]SAAB Surveillance AB, [3]Intel Corporation

14:30 – 14:50 **EuMIC16-3**
A 60 GHz LNA with Variable Transmission Characteristics Using Q-Enhancement

Helmuth Morath[1], Jens Wagner[1], Frank Ellinger[1]

[1]TU Dresden, Germany

14:50 – 15:10 **EuMIC16-4**
A Tunable True Time Delay up to 50 GHz Based on HBT Pairs in Stacked Common Base Topology with Incorporated Delay Lines

Janis Nikolai Wörmann[1], Burak Güven Özat[1], Mathias Pius Scharpf[1], Mark Johannes Neff[1], Benjamin Schoch[1], Ingmar Kallfass[1]

[1]Institute of Robust Power Semiconductor Systems (ILH) - University of Stuttgart

15:10 – 15:30 **EuMIC16-5**
2.5 to 64 GHz Nonuniform Distributed Power Detector in 130 nm SiGe BiCMOS

Mark Johannes Neff[1], Burak Güven Özat[1], Janis Nikolai Wörmann[1], Prakhar Singhal[1], Benjamin Schoch[1], Ingmar Kallfass[1]

[1]Institute of Robust Power Semiconductor Systems (ILH), University of Stuttgart

Mission 1

EuMW02
EuMC/APMC Special Session: mm-Wave and THz Circuits and Systems

Chair: Hyunchul Ku[1]

Co-Chair: Diego Caratelli[2]

[1]Konkuk University, Republic of Korea, [2]Eindhoven University of Technology (TU/e)

EuMW02-1
CMOS Compact Concurrent Transceiver Pixel Arrays for Terahertz Imaging Applications

Wooyeol Choi[1], Kenneth O[2]

[1]Seoul National University, [2]The University of Texas at Dallas

EuMW02-2
Silicon-based Scalable Active Phased Arrays above 100GHz

Yi Hu[1], Xiangao Meng[1], Bingli Dai[1], Yan Li[1], Zhi Chen[1], Bo Zhang[1], Cheng Wang[1]

[1]University of Electronic Science and Technology of China, Chengdu, China

EuMW02-3
THz Antenna Designs and Measurements

Yu-Hsiang Cheng[1]

[1]National Taiwan University

EuMW02-4
Compound Semiconductor Technologies for mm-wave and sub-THz applications

Nadine Collaert[1]

[1]imec

EuMW02-5
Quasi-Optical Antenna Systems: From Space to Widespread Sub-THz Applications

Nuria LLombart Juan[1]

[1]TU Delft

Juliana CZ1

URSI Benelux Forum

13:50 – 16:30 **URSI Benelux Forum**

Auditorium

EuMIC/EuMC02
Panel Session: On-going R&D and Industrial Projects Towards More Sustainable Microwave Engineering

Chair: Ann Franchois[1]

Co-Chair: Jean-Pierre Raskin[2]

[1]Ghent University

[2]Université catholique de Louvain

13:50 – 15:30 **Panel Session: On-going R&D and Industrial Projects Towards More Sustainable Microwave Engineering**

Future RF, mm-wave, photonics, and IC technologies must align with the UN Sustainable Development Goals (SDGs), promoting harmony with nature and society. Key SDG themes include climate action, waste reduction, and responsible production. The EU's Ecodesign for Sustainable Products Regulation (ESPR), effective since July 2024, drives this shift toward greener, circular products. In this panel session, representatives from the EIC, industry and RTOs will share visions and engage with the audience in an open discussion.

13:50 – 14:10 **EIC Engagement with the European Sustainable Electronics Ecosystems.**

Isabel Obieta, European Innovation Council

14:10 – 14:40 **Pitches by Panelists from Industry and RTOs**

Bertrand Parvais, imec, Belgium;

Gregory Clark, Qorvo, USA

Duncan Platt, RISE, Sweden

Moritz Schlagmann, Infineon Technologies AG, Germany

Hugues Ferreboeuf, The Shift Project, France

14:40 – 15:30 **Panel Discussion**

Moderator: Jean-Pierre Raskin, UCLouvain

TUESDAY 16:10 – 17:50

ROOM	Mission 2	Quest	Expedition	Auditorium
	EuMC07 Materials and Packaging Concepts for Microwave and mm-Wave Applications Chair: Amelie Hagelauer[1] Co-Chair: Holger Maune[2] [1]Technical University of Munich & Fraunhofer EMFT, [2] Otto von Guericke University Magdeburg	**EuMC08** mm-Wave Antennas for Radar and Wireless Communications Chair: Alexander Kölpin[1] Co-Chair: Akanksha Bhutani[2] [1]Hamburg University of Technology, [2]Karlsruhe Institute of Technology (KIT)	**EuMC09** RF Engineering - An Educational Perspective Chair: Alessandro Galli[1] Co-Chair: Guy Vandenbosch[2] [1]Sapienza University of Rome, [2]KU Leuven	**EuMC10** Special Session: Can Truly Environmentally Friendly ICT Become a Reality? Chair: Jean-Pierre Raskin[1] Co-Chair: Ann Franchois[2] [1]Université catholique de Louvain, [2]Ghent University
16:10 – 16:30	**EuMC07-1** Enhanced QFN Package Design Utilizing HTCC-Based GCPW Structures and Air Cavities for V-Band Applications Jin-Young Jeong[1], Juwan Kim[1], Wonshil Kang[1], Hyunchul Ku[2] [1]RF Materials Co.,Ltd., [2]Konkuk University, Republic of Korea	**EuMC08-1** A Wideband Glass Resonator Antenna as AiP Concept for Sub-THz Application Mario Faliero[1], Alexander Quint[1], Luca Valenziano[1], Elizabeth Bekker[1], Thomas Zwick[1], Akanksha Bhutani[1] [1]Karlsruhe Institute of Technology (KIT)	**EuMC09-1** VO2-switchable microwave components in planar technology for at home hands-on teaching deposition techniques and microwave devices characterization Baptiste Henriot[1], Manon Gireau[2], Olivier Tantot[1], Frederic Dumas-Bouchiat[2], Corinne Champeaux[2], Aurélien Périgaud[1], Damien Passerieux[1], Serge Verdeyme[1] [1]Xlim - UMR 7252 - CNRS- Universite De Limoges, [2]IRCER UMR CNRS 7315 - University of Limoges	**16:10 – 16:35** **16:10-16:35: EuMC10-1** Circular and Environmentally Friendly ICT: A Distant Dream? Karel Van Acker[1] [1]KU Leuven
16:30 – 16:50	**EuMC07-2** Evaluation of CPW Transmission Lines on 3D Printed Alumina in D-band Elizabeth Bekker[1], Till Glage[1], Alexander Quint[1], Luca Valenziano[1], Thomas Zwick[1], Akanksha Bhutani[1] [1]Karlsruhe Institut of Technology (KIT)/ Institute of Radio Frequency Engineering and Electronics (IHE)	**EuMC08-2** Steerable High Gain E-Band Antenna Marcello Salerno[1], Luigi Cervi[1] [1]Greenwaves srl	**EuMC09-2** Near-Field Visualization of Antennas' Radiated Electric Field by Infrared Thermography as a Supplement Tool for RF Engineering Education Ricardo Carrizales Juarez[1], Adrien Laffont[1], Stéphane Faure[1] [1]ANYFIELDS	**16:35 – 17:00** **16:35-17:00: EuMC10-2** Beyond the Quest for Performance in Power Electronics Jean-Christophe CREBIER[1], Tugce TURKBAY ROMANO[1] [1]G2ELab, Université Grenoble Alpes, Grenoble INP, CNRS
16:50 – 17:10	**EuMC07-3** A Wideband Waveguide Launcher in the Interposer for 79GHz Automotive Radar eWLB Package Rasoul Ebrahimzadehchari[1], Abdellatif Zanati[2], Mohammad-Reza Nezhad Ahmadi[1] [1]mmSense Technologies Inc., [2]NXP Semiconductor Inc	**EuMC08-3** 2&4 -Cascade Imaging Radar Antennas using Waffle-iron Ridge Guide Yutaka AOKI[1], Naoki Ise[2], Hiroyuki Kamo[2], Hitoshi Tanaka[2], Takashi Shimizu[3] [1]TAIYO YUDEN CO.,LTD, [2]TAIYO YUDEN CO., LTD., [3]Utsunomiya University	**EuMC09-3** Integrating Research into Undergraduate EE Education: An MMIC RF Power Amplifier Design Laura Margot van Vliet[1], David Niven[2], Ilke Ercan[1], Simon J. Mahon[2] [1]TU Delft, [2]Macquarie University	**17:00 – 17:25** **17:00-17:25: EuMC10-3** Eco-Reliability in Electronic Design: A Methodological Approach for Sustainable Technology Selection Léo Saillenfest[1], Marina Proske[1], Daniel Hahn[1] [1]Fraunhofer IZM, Berlin
17:10 – 17:30	**EuMC07-4** Electrooptical Integration of an Electronic Photonic Integrated Circuit into Plastic Substrates using MID-Technology Stephan Kruse[1], Jabil Diri[2], Thomas Mager[2], Christian Kress[1], J. Christoph Scheytt[1] [1]Paderborn University, Department of Electrical Engineering, Heinz Nixdorf Institute, [2]Product Engineering, Fraunhofer Research Institute for Mechatronic Systems Design IEM	**EuMC08-4** A Scalable, Low-Cost, V-Band Bulls Eye Antenna Frederike Bartels[1], Dominik Langer[1], Alexander Kölpin[1] [1]Hamburg University of Technology (TUHH)	**EuMC09-4** Transmitter Education Based on the Mixerless Architecture Lukas Hüssen[1], Muh-Dey Wei[1], Renato Negra[1] [1]HFE RWTH Aachen	**17:25 – 17:50** **17:25-17:50: EuMC10-4** Sustainable ICT: Measuring is Knowing Koen De Bosschere[1] [1]Ghent University
17:30 – 17:50	**EuMC07-5** Electrical Extraction of Amorphization Ratio in Phase Change Material (PCM) RF Switches Lucas Henrique de Araujo[1], Nicolas Le Gall[2], Julien Lintignat[1], Pierre Blondy[1] [1]Xlim - UMR 7252 - CNRS- Limoges University, [2]Thales Land & Air System	**EuMC08-5** 2D Leaky-Wave Antenna with All-Dielectric Partially Reflecting Surface at mm-Wave Frequencies Guillaume François[1], Henrik Jansen[1], Amar Al-Bassam[1], Suramate Chalermwisutkul[2], Dirk Heberling[1] [1]RWTH Aachen University, Germany, [2]TGGS, KMUTNB	**EuMC09-5** Building a Low-Cost Solar Radio Telescope: an Effective Approach for Teaching Microwave Electronics, Antennas and Noise Giacomo Schiavolini[1], Francesco Alunni[1], Giulio Brancali[1], Giulia Orecchini[1], Valentina Palazzi[1], Camille C.A. Westerhof[2], Timo S. Prinz[2], Anna Engler[2], Martin Hübner[2], Sebastian Lange[2], Maurizio Burla[2], Federico Alimenti[1] [1]University of Perugia, Italy, [2]Technische Universität Berlin, Germany	

TUESDAY 16:10 – 17:50

ROOM	Spark	Hall 7
	EuMC11 Advancements in Active Antennas and Arrays Chair: Alessandra Costanzo[1] Co-Chair: Alessandro Garufo[2] [1]Università di Bologna, [2]TNO Defense, Safety and Security	URSI Benelux Poster Session Chair: TBD Co-Chair: TBD
16:10 – 16:30	**EuMC11-1** Waveform Synthesis for Active Loadpulling Mitigation in Multi-user MIMO Transmitters Jiayu Hou[1], Yuan Ding[2], George Goussetis[2], Symon K. Podilchak[3] [1]Heriot-Watt University and the University of Edinburgh, [2]Heriot Watt University, UK, [3]University of Edinburgh	**16:10 – 17:50** **URSI Benelux Poster Session**
16:30 – 16:50	**EuMC11-2** Improved Hybrid Numerical Methodology for Fast Design of Reconfigurable Transmit-Arrays Antenna Alessandro Henrique De Oliveira Cabral Junior[1], André Barka[1], Hamza Kaouach[2] [1]ONERA, [2]LAPLACE, Université de Toulouse, CNRS	
16:50 – 17:10	**EuMC11-3** Active Transmitarray with End-Fire Dipole Elements for E-band Antti Lamminen[1], Jehki Pusa[1], Arto Rantala[1], Mikko Kaunisto[1], Mikko Varonen[1], Mikko Kantanen[1], Jussi Säily[1], Dristy Parveg[1], Hans Toivanen[1] [1]VTT Technical Research Centre of Finland	
17:10 – 17:30	**EuMC11-4** Hybrid Simulation-Measurement Characterization Method for Active Phased-Array Transmitters Alberto Maria Angelotti[1], Francesca Benassi[1], Mattia Mengozzi[1], Gian Piero Gibiino[1], Alberto Santarelli[1], Alessandra Costanzo[1] [1]University of Bologna	
17:30 – 17:50	**EuMC11-5** A Single Element Antenna with Continous Beam Steering using a Versatile AMC Shahinshah Ali[1], Farhan Abdul Ghaffar[1] [1]Lakehead University	

TUESDAY 16:10 – 17:50

ROOM **Polar**

EuMIC17

EuMIC Closing

Chair: Marion K. Matters-Kammerer[1]

Co-Chair: Patrick Reynaert[2], Piyush Kaul[1]

[1]Eindhoven University of Technology - TU/e, [2]KU Leuven ESAT-MICAS

16:10 – 16:15 Session Welcome

Marion K. Matters-Kammerer[1]

[1]Eindhoven University of Technology - TU/e

16:15 – 17:00 Progress in Design and Integration for Near-THz Wireless Communications Systems

Yves Baeyens[1]

[1]Nokia Bell Labs

In recent years, the proliferation of mm-Wave radios has been accelerated by the global drive toward ultra-high-capacity 5G systems and advanced imaging for security and radar for automotive applications. Realizing these capabilities relied not only on RFIC advancements, but also on innovations in packaging, materials engineering, and cross-domain co-design to enable scalable, manufacturable solutions.
As we look toward 6G, near-THz systems are emerging as key enablers of unprecedented peak data rates. This talk will detail the technological path toward scalable near-THz implementations, highlighting RFIC developments and Radio-on-Glass interposer platforms operating across E-Band, D-Band, and beyond. We will also examine the challenges in modeling, packaging, and characterizing sub-THz integrated systems, and present recent solutions that support multi-Gb/s data rates with high spectral utilization for wireless backhaul applications.

17:00 – 17:20 Awards ceremony

Andrea Neto[1], Marion K. Matters-Kammerer[2]

[1]TU Delft, [2]Eindhoven University of Technology - TU/e

EuMIC Prize
EuMIC Young Engineer Prizes
Tom Brazil Fellowship Award (by the GAAS® Association)
EuMIC Best Poster Award

17:20 – 17:40 Closing Remarks

Marion K. Matters-Kammerer[1]

[1]Eindhoven University of Technology - TU/e

17:40 – 17:50 Invitation to EuMW 2026

Tudor Williams[1]

[1]Filtronic

WEDNESDAY 08:30 – 10:10

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMC12 Power Amplifier Design and Linearisation Techniques Chair: Anding Zhu[1] Co-Chair: Anna Piacibello[2] [1]University College Dublin, [2]Politecnico di Torino	**EuMC13** Special Session: Antenna Systems for Non-Terrestrial Networks Chair: Giuseppe Virone[1] Co-Chair: Thomas Delamotte[2] [1]CNR-IEIIT, [2]University of the Bundeswehr Munich	**EuMC14** Metasurfaces and Lenses Chair: David González Ovejero[1] Co-Chair: Giampiero Gerini[2] [1]CNRS, [2]Eindhoven University of Technology	**EuMC15** Innovative Fabrication Techniques for Passive Components Chair: Gerald Gold[1] Co-Chair: Hjalti H. Sigmarsson[2] [1]Friedrich-Alexander Universität Erlangen-Nürnberg, [2]Oklahoma University
08:30 – 08:50	**EuMC12-1** Deep Learning Driven Design of Highly Efficient Harmonic-Tuned Class F-1 Power Amplifiers Han Zhou[1], Haojie Chang[1], Christian Fager[1] [1]Chalmers University of Technology	**EuMC13-1** Shared Aperture Full Duplex Phased Array User Terminals for Satellite-on-the-Move Applications Teanette van der Spuy[1], Rob Maaskant[2], Marianna Ivashina[2], Thomas Eriksson[2], Henrik Holter[2], Sten Gunnarsson[4], Lukas Nyström[5] [1]Chalmers University of Technology, SATCUBE, [2]Chalmers University of Technology, [3]Ericsson AB, Sweden, [4]SAAB AB, Sweden, [5]SATCUBE	**EuMC14-1** Design and Implementation of Reconfigurable Metasurfaces for Mobile Communication Antennas Francesco Caminita[1] **INDUSTRIAL KEYNOTE** [1]Wave Up s.r.l.	**EuMC15-1** Micro Additively Manufactured Suspended Stripline for Sub-THz Applications Hiba LAHLIMI ALAMI[1], Cyril Guines[1], Nicolas Delhote[1], Aurélien Périgaud[1], Sébastien Rougier[1], Damien Passerieux[1], Pedro Rynkiewicz[2], Stéphane Bila[1] [1]Xlim - CNRS- Unversite De Limoges, [2]Centre National d'Études Spatiales (CNES)
08:50 – 09:10	**EuMC12-2** Phase-Controlled Matching Networks Using Quality Circles for Enhanced Efficiency in Wideband Power Amplifiers Sergio Lopez de Pablo[1], Jordi Verdú[1], Pedro de Paco[1] [1]Universitat Autònoma de Barcelona	**EuMC13-2** Active Antenna Array Experimental Platform Jiayu Hou[1], Yuan Ding[2], George Goussetis[2] [1]Heriot-Watt University and the University of Edinburgh, [2]Heriot-Watt University	**EuMC14-2** From Design to Manufacturing of a Metasurface Antenna System for LEO Satellite "..." Abdel Hadi Hobballah[1], Cristian Della Giovampaola[2], Gabriele Minatti[2], Amaury Veille[1], Maël Moguedet[1], Jean Chazelas[3], Charlotte Tripon-Canseliet[3], Stefano Maci[4] [1]S2P-Smart Plastic Products, [2]Wave Up Innovation in Electromagnetics, [3]Ultimetas, [4]University of Siena	**EuMC15-2** Fine Pitch Coplanar Waveguides on a 3D Printed Substrate using an Optimized Laser Structuring Process Alexander Quint[1], Luca Valenziano[1], Marius Kretschmann[1], Pascal Maier[1], Patrick Schwaab[1], Georg Gramlich[1], Alexander Kotz[1], Christian Koos[1], Thomas Zwick[1], Akanksha Bhutani[1] [1]Karlsruhe Institute of Technology (KIT)
09:10 – 09:30	**EuMC12-3** A Compact GaN-Based D-Band High-Power Waveguide Amplifier Module Nico Riedmann[1], Maciej Ćwikliński[1], Dirk Schwantuschke[2], Peter Brückner[2] [1]Rohde & Schwarz GmbH & Co. KG, [2]Fraunhofer IAF, Fraunhofer Institute for Applied Solid State Physics	**EuMC13-3** Active Antennas Onboard LEO Satellites Roger Montoya-Roca[1], Carlos Vazquez-Sogorb[1], Sören Harms[2], Ashifa M. Musthafa[3] [1]THALES ALENIA SPACE (ITALY), [2]THALES ALENIA SPACE (FRANCE), [3]Antenna Company	**EuMC14-3** Design of a 2D beamforming network based on geodesic lenses with a physical optics tool Pilar Castillo-Tapia[1], Sergio Garcia-Martinez[2], Francisco Mesa[3], Jose Rico-Fernandez[4], Oscar Quevedo-Teruel[1] [1]KTH - Royal Institute of Technology, [2]Universidad Politécnica de Madrid, [3]University of Sevilla, [4]Northern Waves AB	**EuMC15-3** Monolithically 3-D Printed E-Plane-Stub Waveguide Filters With Flexible Polarization Rotation and Allocation of Transmission Zeros Zhihong Xu[1], Jin Li[1], Tao Yuan[1] [1]Shenzhen University
09:30 – 09:50	**EuMC12-4** Joint Full-Band and Sub-Band Modeling for Digital Predistortion of Broadband Power Amplifiers Lin Qi[1], Anding Zhu[1] [1]University College Dublin	**EuMC13-4** Millimeter Wave Antennas for Ground Terminals Theodoros Pavlidis[1], Dijun Lin[2], Saba Aslam[2], Ramonika Sengupta[1], Naila Rubab[3] [1]Satcube AB, [2]Ericsson AB , [3]ANTENNEX B.V.	**EuMC14-4** Dual-Beam Planar D-Band Antenna Array: Filtering Patch Antennas and Dielectric Lens Vitor Carvalho de Almeida[1], Mehmet Ahad Yurtoglu[1], Ramez Askar[1], Laurenz John[2], Jaehoon Chung[3], Arnulf Leuther[2], Woochan Kim[3], Chulkyu Mun[3], Jeongin Kim[3], Yonghak Suh[3], Jongpil Lee[3], Michael Peter[1], Thomas Haustein[1], Wilhelm Keusgen[4] [1]Fraunhofer Heinrich Hertz Institute, [2]Fraunhofer IAF, [3]LG Electronics, Inc., [4]Technical University Berlin	**EuMC15-4** Analog Phase Shifter with Substrate Integrated Electrodes in Dielectric Image Line Technology Tobias Bader[1], Gerald Gold[1] [1]Friedrich Alexander University of Erlangen-Nürnberg
09:50 – 10:10	**EuMC12-5** A Design of Self-Adaptive True-Time-Delay Alignment CMOS Module for Millimeter-Wave Power Amplifiers Linearization Yaojia Fan[1], Fei You[1], Longhao Li[1], Yingjie Liu[1], Zehua Xiao[1], Yin Chen[1], Songbai He[1] [1]The School of Electronic Engineering, University of Electronic Science and Technology of China	**EuMC13-5** Antenna technology for Low-Earth-Orbit Satellites Adrian Martin[1] [1]SWISSto12	**EuMC14-5** W-band Horn Beam-Forming Network Fed Wide-Angle Multibeam Metasurface Antenna Based on Through Glass Via Technology Chun Geng[1], Ji-Wei Lian[1], Dazhi Ding[1] [1]Nanjing University of Science and Technology	**EuMC15-5** Post-fab Local Porous Silicon Integration in Standard Resistivity Silicon Wafers for RF Applications Romain Tuyaerts[1], Gilles Scheen[1], Martin Rack[2], Massinissa Nabet[2], Arthur Vandroogenbroek[2], Amin Rassekh[1], Khaled Aouadi[1], Jean-Pierre Raskin[2] [1]Incize, [2]UCLouvain

WEDNESDAY 08:30 – 10:10

ROOM	Auditorium	Spark	Flash	Glow
	EuMC16 Panel Session: EE Education in Paradigm-changing Times - Challenges & Opportunities Chair: Guy Vandenbosch KU Leuven	**EuMC17** Material Characterisation Chair: Kamran Ghorbani[1] Co-Chair: Nicolas Delhote[2] [1]RMIT University, [2]XLIM Research Institute, University of Limoges	**EuMC18** mm-Wave and THz Photonics: Devices, Systems, and Applications Chair: David Marpaung[1] Co-Chair: Guillaume Ducournau[2] [1]University of Twente, [2]University of Lille	**EuMC19** Advanced Rectification Techniques for High-Efficiency Wireless Power Systems Chair: Nuno Borges Carvalho[1] Co-Chair: Jiafeng Zhou[2] [1]University of Aveiro / Instituto de Telecomunicações, [2]University of Liverpool
08:30 – 08:50	**08:30 – 10:10 Panel Session: EE Education in Paradigm-changing Times** Education in Microwave Engineering faces daunting challenges in an epoch of indiscriminate access to information and unprecedented technological progress. Supplementary pressure was recently added by the explosive impact of generative AI. Does academic education meet the demands of these times? Five educators with a best-practice track-record will frontally tackle these questions in a panel session, opened by a keynote address, followed by short pitches and an engaging, open debate. 8:30 Teaching Conceptual Electromagnetics: from Mathematics, over Physics, to Applications Guy Vandenbosch, KU Leuven 8:50 Pitches by European Educators Mark Bentum, Eindhoven University of Technology Alessandro Galli, Sapienza Università di Roma, Dirk Heberling, RWTH Aachen University Hendrik Rogier, Ghent University 9:15 Panel Discussion	**EuMC17-1** Analysis of parameters impacting measurement uncertainties and implementation of the calibration protocol for permittivity extraction using a GSG probe Ikram Sbai[1], Damien Passerieux[1], Nicolas Delhote[1], Olivier Tantot[1], Emmanuel Perrin[2] [1]XLIM - CNRS - Universite de Limoges, [2]CISTEME, FR	**EuMC18-1** Beam Steering for Long-Distance Sub-THz Links Using a Lens-Integrated Leaky-Wave Antenna Joel Dittmer[1], Akanksha Bhutani[2], Luca Valenziano[2], Felix Beuthan[1], Sandrine Wagner[3], Axel Tessmann[3], Thomas Zwick[2], Christian Koos[1], Sebastian Randel[1] [1]Institute of Photonics and Quantum Electronics, Karlsruhe Institute of Technology, Germany, [2]Institute of Radio Frequency Engineering and Electronics, Karlsruhe Institute of Technology, Germany, [3]Fraunhofer Institute for Applied Solid State Physics (IAF), Germany	**EuMC19-1** Small High-Efficiency Broadband Rectifier Based on Compact Coupled structure Haoming He[1], Kai Song[1], Zhongqi He[1], Liping Yan[1], Changjun Liu[1] [1]Sichuan University
08:50 – 09:10		**EuMC17-2** RF Characterization of New Generations of Bio-Based PCB Substrates in Harsh Environment Ferial GUIDOUM[1] [1]Centre de radiofréquences, optique et micro-nanoélectronique des Alpes (CROMA), UMR-CNRS 5130	**EuMC18-2** Advanced Electro-Optic Comb Techniques for dynamic THz wave generation and MWP RF filtering Jean Berney[1], Ewelina Obrzud[1], Sanghoon Chin[1] [1]CSEM	**EuMC19-2** High-Power Class-F GaN MMIC Rectifier for Space-Based Solar Power Applications Xiaoqiang Gu[1], Jiteng Ma[1], Dongchi Zhang[1], Mark Beach[1] [1]University of Bristol
09:10 – 09:30		**EuMC17-3** Reflection TDS-THz characterization and Drude modelling of n-type doped c-Si from room temperature to 475 K Paolo Sberna[1], Laurens Beijnen[1], Martijn Huiskes[1], Andrea Neto[1] [1]Delft University of Technology	**EuMC18-3** Heterogeneous InGaAs/SiC UTC-PDs with Array Antennas Enabling On-Chip THz Wireless Communication Ming Che[1], Yoshiki Kamiura[1], Yuanhao Li[1], Kazutoshi Kato[1] [1]Kyushu University	**EuMC19-3** Watt-Level X-Band GaN Schottky Diode Rectifier Xiaochen Yu[1], Haoran Wang[2], Xiantao Yang[1], Shawn S.H. Hsu[2], Ta-Jen Yen[2], Yejun He[3], Chaoyun Song[3], Yi Huang[1], Jiafeng Zhou[1] [1]University of Liverpool, [2]National Tsing Hua University, [3]Shenzhen University
09:30 – 09:50		**EuMC17-4** Non-Uniform Rectangular Waveguide Sensor for Measuring the Dielectric Constant of Vegetable Oils Paula Viudes-Pérez[1], Héctor García-Martínez[1], Germán Torregrosa-Penalva[1], Julia Arias-Rodríguez[1], Enrique Bronchalo[1], Ernesto Ávila-Navarro[1], Ilona Piekarz[2], Jakub Sorocki[2] [1]Miguel Hernandez University of Elche, [2]AGH University of Science and Technology	**EuMC18-4** Fully Photonic Wireless Link Operating between 100 and 600 GHz with up to 90 Gbit/s Line Rate Milan Deumer[1], Oliver Stiewe[1], Simon Nellen[1], Robert Elschner[1], Ronald Freund[1], Martin Schell[1], Robert B. Kohlhaas[1] [1]Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute	**EuMC19-4** Compact Broadband Voltage Doubler Rectifier with Nonuniform Transmission Line Based Input Matching Lukas Hüssen[1], Muh-Dey Wei[1], Renato Negra[1] [1]HFE RWTH Aachen
09:50 – 10:10		**EuMC17-5** Waveguide-based Characterization of Magnetically-biased Soft Ferrites for Nonreciprocal Devices at Sub-THz Frequencies S. Hossein Hosseini Buiki[1], Mehrdad Rezaei Golghand[1], Mohammad Memarian[2], Behzad Rejaei[2], Joachim Oberhammer[1] [1]KTH - Royal Institute of Technology, [2]Sharif University of Technology	**EuMC18-5** Compact Bidirectional Fiber-Antenna for Radio-over-Fiber Adrian Ramos[1], Maria C. Santos[1], Victor Polo[1], Antoni Barlabé[1], Josep Prat[1] [1]Universitat Politecica de Catalunya (UPC)	**EuMC19-5** Power Combining in Wireless Power Transfer Receivers Comparing RF and DC Combining Helena Ribeiro[1], Amit Baghel[1], Nuno Borges Carvalho[1] [1]Universidade de Aveiro - IT

WEDNESDAY 08:30 – 10:10

ROOM	Polar	Media Arena
	EuRAD01 EuRAD Opening Chair: Laura Anitori[1] Co-Chair: Kostas Doris[2] [1]CNIT RASS, [2]NXP Semiconductors	**EuMC-PP1** 1-Minute Poster Pitch: EuMC Chair: Mark S. Oude Alink[1] Co-Chair: Kamil Yavuz Kapusuz[2] [1]University of Twente, [2]IMEC-Ghent University/Belgium
08:30 – 08:50	Welcome Address: Opening of the European Radar Conference 2025 Laura Anitori[1] [1]CNIT RASS	
08:50 – 09:30	High resolution Radar for next level of autonomous Driving! Will AI at the edge change the way of thinking? Mark Steigemann[1] [1]NXP	
09:30 – 10:10	Evolution of AESA technologies and trends in military phased array radar systems Simon van den Berg[1] [1]Thales Nederland B.V.	**1-Minute Poster Pitch: EuMC** NEW at EuMW: 1-Minute Poster Pitches! Join us for this exciting and fast-paced new format in which posters are pitched in a maximum of one minute. In this session, the posters of EuMC26 will be pitched.

WEDNESDAY 10:50 – 12:30

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMC20 Active Circuits and Modules Chair: Kamal Samanta[1] Co-Chair: Nils Weimann[2] [1]AMWT Ltd UK, [2]University of Duisburg Essen	**EuMC21** Tunable, Reconfigurable, and Acoustic-Wave Filters Chair: Photos Vryonides[1] Co-Chair: Nicolas Delhote[2] [1]Frederick Research Center, Cyprus, [2]XLIM Research Institute, University of Limoges	**EuMC22** Microwave Antennas with Radiation Control Chair: Marlene Harter[1] Co-Chair: Jo Tamura[2] [1]Offenburg University of Applied Sciences, [2]Nihon University	**EuMC23** Printed Antennas and Lenses for Microwave and mm-Wave Frequencies Chair: Hjalti H. Sigmarsson[1] Co-Chair: Gerald Gold[2] [1]University of Oklahoma , [2]Friedrich-Alexander Universität Erlangen-Nürnberg
10:50 – 11:10	**EuMC20-1** A Reconfigurable Modulator for All-Digital Multiphase Transmitters with Minimal Clock Complexity Deguang Sun[1], Andreas Wentzel[1] [1]Ferdinand-Braun-Institut gGmbH, Leibniz-Institut für Höchstfrequenztechnik	**EuMC21-1** Re-imagining Acoustic Filters with Piezo-On-Insulator (POI) Technology S. Ballandras[1], A. Clairet[1], E. Courjon[1], T. Makdissy[1], T. Laroche[1], F. Bernard[1], S. N'diaye[1], G. Aspar[1], L.R. du Roscoat[2], F. Allibert[2], I. Huyet[2], A. Drouin[2], L. Capello[2], M. Broekaart[2], M. Bousquet[3], A. Reinhardt[3], T. Baron[4], W. Daniau[4], R. Salut[4], G. Martin[4], A. Alami-Idrissi[2], C. Didier[2] **INDUSTRIAL KEYNOTE** [1]SOITEC SA, Besançon site, [2]SOITEC SA, [3]CEA - LETI, [4]FEMTO-ST	**EuMC22-1** A Compact Automotive Multi Antenna Module with New Octagonal GNSS Scarabaeus Antenna Maximilian Holzner[1], Josua Ephraim Immanuel Buschmann[1], Stefan Lindenmeier[1] [1]Universitaet der Bundeswehr Muenchen	**EuMC23-1** Inkjet-Printed Monolithically-Integrated Magneto-electric Dipole Antennas Kevin Martin[1], Dimitra Psychogiou[1] [1]University College Cork and Tyndall National Institute
11:10 – 11:30	**EuMC20-2** A Q Band MMIC Low Noise Amplifier Design Using 100 nm Gate Length GaAs pHEMT Technology Long Jiang[1], William McGenn[1], Elle Franks[1], Brian Ellison[1], Gary Fuller[1], Danielle George[1] [1]The University of Manchester	**EuMC21-2** A Channelized RF Reconfigurable Filter MMIC utilizing Differential Synthesis Structure Juncai Lv[1], Zhipeng Li[2], Tao Cao[1], Youjiang Liu[2], Li Gu[1] [1]Institute of Electronic Engineering of CAEP, [2]China Academy of Engineering Physics	**EuMC22-2** A Trap-Loaded Tri-Band Antenna for Wi-Fi 7 (2.4/5/6 GHz) Applications Jo Tamura[1], Hiroyasu Ishikawa[1], Hiroyuki Arai[2] [1]Nihon University, [2]Yokohama National University	**EuMC23-2** A 3D-Printed Multi-Material GRIN Lens with an Integrated Matching Layer at 20 GHz Simon P. Hehenberger[1], Stefano Caizzone[1], Alexander Yarovoy[2] [1]German Aerospace Center (DLR), Oberpfaffenhofen, Germany., [2]TU Delft
11:30 – 11:50	**EuMC20-3** Robust Ku-Band Low-Noise Amplifier in GaN HEMT Technology Luisa de la Fuente[1], Beatriz Aja[1], Enrique Villa[1], Eduardo Artal[1], Philipp Neininger[2], Christian Friesicke[2], Fabian Thome[2], Peter Brückner[2], Aintzane Lujambio[3], David Lobato[3], Mario Rueda[3], David Cuadrado-Calle[4], Valerie Dutto[4] [1]Universidad de Cantabria, [2]Fraunhofer IAF, Fraunhofer Institute for Applied Solid State Physics, [3]ALTER Technology TÜV Nord, [4]European Space Agency, European Space Research and Technology Centre	**EuMC21-3** A Miniature Acoustic-Wave Bandstop Filter with a Broad Passband Mehran Golcheshmeh[1], Matthew Ou[1], Raafat R. Mansour[1] [1]University of Waterloo	**EuMC22-3** Quasi-Absorptive Planar Monopole Antenna Runze Li[1], Li Yang[1], Zekai Luo[2], Roberto Gómez-García[1] [1]University of Alcalá, [2]Sun Yat-Sen University	**EuMC23-3** 3D-Printed Pickett-Potter Horn With a Sine-Squared Antenna Profile Dominik Langer[1], Sarah Klass[1], Bartosz Tegowski[1], Frederike Bartels[1], Alexander Kölpin[1] [1]Hamburg University of Technology (TUHH), Institute of High-Frequency Technology
11:50 – 12:10	**EuMC20-4** Best-In-Class Phase Noise for Next Generation Connectivity by Super High Frequency Crystal Resonator Tadayuki Nomura[1] [1]Murata Manufacturing Co., Ltd.	**EuMC21-4** RF co-designed Single- and Multi-band Acoustic-Wave Filter-LNAs with Intrinsic Switching Steven Matthew Cheng[1], Dimitra Psychogiou[1] [1]University College Cork & Tyndall National Institute	**EuMC22-4** Differentially-Fed High-Selectivity Filtering Antenna Array With Quasi-Reflectionless Behavior and High Common-Mode Suppression Xi-Bei Zhao[1], Roberto Gómez-García[2] [1]Harbin Engineering University, [2]University of Alcalá	**EuMC23-4** Effective Permittivity Determination Procedure for 3D-Printed Dielectric Lenses Rasmus Mentzer[1], Frederike Bartels[1], Nico Weiss[1], Alexander Kölpin[1] [1]Hamburg University of Technology (TUHH), Institute of High-Frequency Technology
12:10 – 12:30	**EuMC20-5** A J-Band Low-Noise Amplifier with 100+ GHz 3-dB Bandwidth in a 130-nm SiGe BiCMOS Technology Arjith Chandra-Prabhu[1], Janusz Grzyb[1], Marcel Andree[1], Zhichu Cao[1], Holger Rücker[2], Ullrich R. Pfeiffer[1] **EuMC CP & YEP nominee** [1]University of Wuppertal, Wuppertal, [2]IHP - Leibniz-Institut für innovative Mikroelektronik	**EuMC21-5** A Study on the Co-design of On-chip Varactor-based Gallium Nitride Microstrip Bandpass Filters Andrés Fontana[1], Dimitra Psychogiou[1] [1]Tyndall National Institute	**EuMC22-5** Enhanced Low Frequency GPR Measurement Using Optimized Vivaldi Antennas Philip Arthur[1], Mathias Kromer[1], Marlene Harter[1] [1]Institute for Unmanned Aerial Systems, Offenburg University, Germany	**EuMC23-5** Compact Geodesic Lens Antenna with 220° Field-of-View: from the Concept to Additive Manufacturing Aurélie Dorlé[1], Alessandro Henrique De Oliveira Cabral Junior[1] [1]ONERA

WEDNESDAY 10:50 – 12:30

ROOM

Flash

EuMC24
Special Session: Microwave Photonics: Enabling the Future of Wireless, Radar, and Space Systems

Chair: Xin (Scott) Yin[1]
Co-Chair: Chris Roeloffzen[2]
[1]IDLab, Ghent University - imec, [2]LioniX International

10:50 – 11:10
EuMC24-1
Optical Frequency Combs for Enabling sub-THz 6G Communication System
Liam Barry[1], Alison Kearney[2], Amol Delmade[2], Frank Smyth[2]
[1]Dublin City University, [2]Pilot Photonics

11:10 – 11:30
EuMC24-2
Demonstration of a widely distributed multistatic multiband coherent photonics-based MIMO radar in a costal surveillance scenario
Mirco Scaffardi[1], Filippo Scotti[1], Antonio Malacarne[1], Luca Rinaldi[1], Federico Camponeschi[1], Malik Muhammad Haris Amir[2], Salvatore Maresca[3], Paolo Ghelfi[1], Antonella Bogoni[2]
[1]CNIT, [2]Scuola Superiore Sant'Anna, [3]CNR

11:30 – 11:50
EuMC24-3
Astro-FG: Agile Optical Frequency Generators for Space Applications
Amol Delmade[1], Alison Kearney[1], Gaurav Jain[1], Liam Barry[2], John Donegan[3], Frank Smyth[1]
[1]Pilot Photonics, [2]Dublin City University, [3]Trinity College Dublin

11:50 – 12:10
EuMC24-4
Microwave Photonics Empowered Integrated Sensing and Communication for 6G
Shilong Pan[1], Lihan Wang[1]
[1]National Key Laboratory of Microwave Photonics

12:10 – 12:30
EuMC24-5
High-speed electronics for microwave photonics
Xin (Scott) Yin[1]
[1]Imec - Ghent University

Glow

EuMC25
Advanced Wireless Sensing and Communication Technologies: Systems, Sensors, and Security

Chair: Jasmin Grosinger[1]
Co-Chair: Huib Visser[2]
[1]Graz University of Technology, [2]imec, The Netherlands

EuMC25-1
Wireless Lab-on-Chip: Inkjet Printed Flexible mm-Wave RFID Module with Integrated Embedded Fluidic Sensors for Salinity Monitoring
Theodore Callis[1], Marvin Joshi[1], Manos M. Tentzeris[1]
[1]Georgia Institute of Technology

EuMC25-2
CASSIOPeiA Solar Power Satellite Antenna Array – Final Breadboard Results
Neil Buchanan[1], Hossein Mardani[2], Yat Hin Chan[1]
[1]Queen's University Belfast, [2]Queen's University Belfast

EuMC25-3
Lens-Based High-Sensitivity 5G mm-Wave Electromagnetic Field Sensors
Leila Gottmer[1], Huasheng Zhang[1], Nuria LLombart Juan[1], Marco Spirito[1]
[1]Delft University of Technology

EuMC25-4
A New Genetic Algorithm Approach for Hybrid-Domain Spectral Signature Design
Nathalia Duque-Madrid[1], Miguel Ángel Gómez Laso[1], Francisco Luna[2], Alejandro Pons-Abenza[1], Txema Lopetegi[1], Iván Arregui[1], Israel Arnedo[1], Arancha Sánchez[1], Silvia Zabala[3], Eduardo Trébol[4], Germán Andrés Álvarez-Botero[1]
[1]Universidad Pública de Navarra, [2]Universidad de Málaga, [3]Centro Stirling S. Coop. (MC3), [4]Embega S.Coop.

EuMC25-5
A Novel Dual-Key Authentication via Wireless Power Transfer for Secure SWIPT-Based IoT Systems
Taki Eddine Djidjekh[1], Gaël Loubet[1], Daniela Dragomirescu[1], Alexandru Takacs[1]
[1]LAAS - CNRS

Polar

ARFTG 22nd On-Wafer Forum
Chair: Gia Ngoc Phung[1]
[1]PTB

On-Wafer Forum

For those of you who are new to us, we are an informal discussion group devoted to sharing information and issues related to the on-wafer measurement and calibration practices. The Forum is also a platform to define workgroups and gather experts in the field to progress the field of on-wafer measurements and calibrations.
Forum principles:

- Facilitate discussion with like-minded engineers
- Open exchange of experience, ideas, discussion of problems
- Informal atmosphere

10:50 – 11:20 **Matador - Autonomous characterization and optimization of µW transistors based on machine learning**
Olof Bengtsson (FBH)

11:20 – 11:40 **Discussion**

11:40 – 12:05 **Linear Propagation of Uncertainty in Probe Position Compensated Multiline-TRL**
Robin Schmidt (Keysight)

12:05 – 12:25 **Discussion**

12:30 **Closing**

WEDNESDAY 10:50 – 12:30

These posters will have 1-minute pitches in EuMC-PP1 on Wednesday morning!

Hall 7

EuMC26
EuMC Interactive Poster Session 1

Chair: Kamil Yavuz Kapusuz[1]

Co-Chair: Mark S. Oude Alink[2]

[1]IMEC-Ghent University/Belgium, [2]University of Twente

EuMC26-1
An Analysis to Predict the Optimal Physical Length of the Coupled Lines of a Transformer Balun

Nethini Thilanga Weerathunge[1], Sudipta Chakraborty[1], Simon J. Mahon[1], Melissa Gorman[1]

[1]Macquarie University

EuMC26-2
Loss Analysis of PCB-Based mm-Wave Air-Filled Substrate Integrated Waveguides

Bram Hoflack[1], Kamil Yavuz Kapusuz[1], Samuel Rimbaut[1], Victor Van der Elst[1], Sam Lemey[1], Hendrik Rogier[1]

[1]Ghent University -imec, IDLab – Electromagnetics Research Group

EuMC26-3
Ultra-wideband Common-Mode Rejection Filter Using Mode Conversion Technique

Dong Jae Go[1], Byungcheol Min[1], Mun Ju Kim[1], Hyun Chul Choi[1], Kang Wook Kim[1]

[1]Kyungpook National University

EuMC26-4
A High-Isolation Dual-Frequency Co-Polarized Ku/Ka Array Antenna

Bo Fu[1]

[1]University of Electronic Science and Technology of China

EuMC26-5
CPWG-to-Waveguide Transition-Integrated 8×1 Slot Array Antenna with Low Sidelobe Level for W-band

Deokjin Seo[1], Seokyeon Hong[1], Seunggoo Nam[1], Yunsik Park[1], Jong-In Ryu[1]

[1]KETI (Korea Electronics Technology Institute)

EuMC26-6
Impact of Duty Cycle on Dynamic Frequency Selection Capabilities of WLAN Equipment During In-Service Monitoring According to ETSI EN 301 893 V2.1.1

Zsolt Gulácsi[1]

[1]National Media and Infocommunications Authority

EuMC26-7
Digital-Twin Technology Solutions for Chip-Package-PCB-Antenna Systems: Correlation-aware Equivalent Circuit Representation Using Eigen-State Formulation

Sidina Wane[1]

[1]eV-Technologies

EuMC26-8
Compact and Robust Low-Power Termination for Ridge-Waveguides

Gian Marco Zampa[1], Maurizio Cirillo[2], Antonio Morini[1]

[1]Università Politecnica delle Marche, [2]Rheinmetall Italia SpA

EuMC26-9
90° H-Plane Transition Design from Standard Waveguide to Half-Mode Groove Gap Waveguide in E-Band

Wasim Alshrafi[1], Felix Kaltwasser[1], Carlos Galvis Salzburg[1], Thomas Bertuch[1]

[1]Fraunhofer FHR

EuMC26-11
Fabrication and Characterization of Eco-Friendly Non-Isocyanate Polyurethane Nanocomposites for Electromagnetic Shielding by Absorption

Ahmad KHAMIS[1], Laetitia Urbanczyk[2], Christophe Detrembleur[2], Isabelle Huynen[1]

[1]Université catholique de Louvain, [2]University of Liege

EuMC26-12
Design, Realization and Screwless Assembly of a Hybrid PCB-Waveguide Module Using Additive Manufacturing

Odette Denis[1], Romain Ammar[1], Benjamin Potelon[2], Cédric Quendo[1], Julien Haumant[3], Kyrian Mear[4], Dylia Bechiti[4], Julien Deza[5], Romain Hubert[5], Thomas Merlet[5], Christophe Goujon[6], Rachid Jaoui[6]

[1]University of Brest, Lab-STICC, [2]Lab-STICC, IMT-Atlantique, Brest, France, [3]Elliptika (GTID), [4]Protecno [GTID], [5]THALES LAS, Elancourt, France, [6]DGA / AID

EuMC26-13
Fabrication of Cavity-backed Serial-fed Microstrip Patch Antenna Array for D-band (140 GHz) using Quartz Glass on Silicon Hybrid Bonded Wafer

Kentaro Tani[1], Naotake Okada[1], Masato Tokai[1], Shoichiro Yamaguchi[1], Jungo Kondo[1], Makoto Iwai[2], Uwe Maaß[3], Alexander Gäbler[3], Wojciech Partyka[3], Ivan Ndip[3]

[1]NGK insulators ltd, [2]NGK Europe GmbH, [3]Fraunhofer Institut für Zuverlässigkeit und Mikrointegration (IZM)

These posters will have 1-minute pitches in EuMC-PP1 on Wednesday morning!

EuMC26-14
PTFE-core flexible waveguide and application to high-data-rate interconnects at 80 GHz

Alexandre Renau[1], Prakash Gyawali[1], Ronan Cranny[2], Julien Logette[2], Stéphanie Géas[2], Antoine Baudin[2], Yanis Charif[2], Ludovic Burgnies[1], Pascal Szriftgiser[3], Guillaume Ducournau[1]

[1]Univ. Lille, CNRS, Univ Polytechnique Hauts-de-France, UMR 8520 - IEMN - Institut d'Electronique de Microélectronique et de Nanotechnologie, F-59000 Lille, France, [2]Axon' Cable, [3]University of Lille, CNRS, Laboratoire de Physique des Lasers, Atomes et Molécules, PhLAM, UMR 8523, F-59000 Lille, France

EuMC26-15
A Wideband Low return Loss Measurement Fixture for Load-pull Verification of Power Transistors

Mohammadamin Kamali[1], Ioannis Peppas[1], Arezoo Abdi[1], Arash Arsanjani[1], Helmut Paulitsch[1], Michael Ernst Gadringer[1], Wolfgang Bösch[1]

[1]Graz University of Technology

EuMC26-16
15 GHz Independently Controllable Dual-Polarized 2-Bit Reconfigurable Intelligent Surface

Mehmet Ahad Yurtoglu[1], Ramez Askar[1], Sven Wittig[1], Mathis Schmieder[1], Michael Peter[1], Wilhelm Keusgen[2]

[1]Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute, HHI, [2]Technische Universität Berlin

EuMC26-17
Characterization of a Frequency Dependent Reflective Surface at 300 GHz: Absorption, Bandwidth and Losses

Dutin Frédéric[1], Victor Torres[2], Jorge Teniente[3], Abdu Subahan Mohammed[1], Rita Younes[1], Pascal Szriftgiser[4], Guillaume Ducournau[1]

[1]Université de Lille, CNRS, Centrale Lille, Univ. Polytechnique Hauts-de-France, UMR CNRS 8520 IEMN, Institut d'Electronique de Microélectronique et de Nanotechnologie, [2]Anteral, Spain, [3]Public University of Navarra (UPNA), [4]University of Lille, CNRS, Laboratoire de Physique des Lasers, Atomes et Molécules, PhLAM, UMR 8523, F-59000 Lille, France

WEDNESDAY 10:50 – 12:30

ROOM	Progress	Spark
	EuRAD02 Automotive Radar Data Processing 1 Chair: André Bourdoux[1] Co-Chair: Alessio Filippi[2] [1]imec, [2]NXP Semiconductors	**EuRAD03** Radar System Modeling and Signal Processing Chair: Marina Gashinova[1] Co-Chair: Felix Yanovsky[2] [1]University of Birmingham, [2]State University Kyiv Aviation Institute, Kyiv, Ukraine
10:50 – 11:10	**EuRAD02-1** Free Space Segmentation using Automotive Radar Mujtaba Hassan[1], Francesco Fioranelli[1], Alexander Yarovoy[1], Andras Palffy[1], Satish Ravindran[2], Dariu Gavrila[1] [1]Delft University of Technology, [2]NXP Semiconductors	**EuRAD03-1** On the modeling of plasma effects on radar signature Harmen van der Ven[1] [1]Royal Netherlands Aerospace Center NLR
11:10 – 11:30	**EuRAD02-2** Revisiting the Decimated Back-Projection for Forward-Looking MIMO-SAR Imaging Adnan Al Baba[1], Hichem Sahli[1], André Bourdoux[2], Marc Bauduin[2] [1]Vrije Universiteit Brussel - imec, [2]imec	**EuRAD03-2** Digital Twins for Radar Object Detection: Improving Deep Learning with Synthetic Data Philipp Reitz[1], Christian Künzle[1], Norman Franchi[1], Maximilian Lübke[1] [1]Friedrich-Alexander-Universität Erlangen-Nürnberg
11:30 – 11:50	**EuRAD02-3** Joint ego-motion estimation and multiple object tracking using automotive radar Sen Yuan[1], Taoyue Wang[1], Alexander Yarovoy[1], Francesco Fioranelli[1] [1]TUDELFT	**EuRAD03-3** Modelling Surface Roughness Using Measured Roughness Parameters for Automotive Radar Simulation Helmut Schön[1], Duc Bao Ha[1], Fabian Roos[1], Sascha Laue[1] **EuRAD CP nominee** [1]Robert Bosch GmbH
11:50 – 12:10	**EuRAD02-4** Novel Intuitive Metrics for Radar Point Cloud Validation Ram Kishore Arumugam[1], Patrick Wallrath[1], André Froehly[1], Reinhold Herschel[2], Nils Pohl[3] [1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques), [2]Wavesense Dresden GmbH, [3]Ruhr Universität Bochum	**EuRAD03-4** Digital Twin Creation Using CLEAN for Radar Target Emulation Arvid Sims[1], Bernhard Holzinger[1], Tom Vandeplas[2], Thomas Dallmann[3], Dirk Heberling[4] [1]Keysight Technologies Deutschland GmbH, [2]Keysight Technologies Belgium, [3]TU Ilmenau, [4]RWTH Aachen
12:10 – 12:30	**EuRAD02-5** Transformer-Based 4D Imaging Radar Point Clouds Understanding with Automatic Labeling Zhifei Wang[1], Huiqiang Zhou[1], Hongquan Liu[1] [1]Calterah Semiconductor Technology Co., Ltd.	**EuRAD03-5** Comparison of Re-Iterative Adaptive Beamformers for Phased Array Radars Eiichi Yoshikawa[1], Chandra V Chandrasekar[1], Daichi Kitahara[2], Koji Nishimura[3], Yuuki Wada[4], Tomoo Ushio[4] [1]Colorado State University, [2]Keio University, [3]Kyoto University, [4]Osaka University

WEDNESDAY 13:50 – 15:30

ROOM	Mission 2	Quest	Expedition	Spark
	EuMC27 New Synthesis, RF Design, and Integration Techniques for Microwave Filters Chair: Roberto Gómez-García[1] Co-Chair: Giuseppe Macchiarella[2] [1]University of Alcala, [2]Politecnico di Milano	**EuMC28** Antenna Arrays and Beamforming Networks I Chair: Marianna Ivashina[1] Co-Chair: Cyrille Menudier[2] [1]Chalmers University, [2]XLIM Research Institute, University of Limoges	**EuMC29** Advanced Resonator Technologies for Wireless Communications and Power Transfer Chair: Simon Hemour[1] Co-Chair: Changjun Liu[2] [1]Bordeaux University, IMS Laboratory, [2]Sichuan University	**EuMC30** Advanced Linear Measurements Chair: Ilona Rolfes[1] Co-Chair: Xiaobang Shang[2] [1]Ruhr University Bochum, [2]National Physical Laboratory
13:50 – 14:10	**EuMC27-1** Accurate Cascade Synthesis of High-Order Stopband Filters Matteo Oldoni[1], Stefano Tamiazzo[2], Giuseppe Macchiarella[1], Gian Guido Gentili[1] [1]Politecnico di Milano, [2]Andrew	**EuMC28-1** LOFAR: A hundred thousand element antenna array Paulus P. Krüger[1] **INDUSTRIAL KEYNOTE** [1]Netherlands Institute for Radio Astronomy - ASTRON	**EuMC29-1** Novel Coil Structures for Resonator-Coupled WPT Systems Enabling Long Distance Transmission Daichi Togiya[1], Toshio Ishizaki[1] [1]Ryukoku University	**EuMC30-1** A Reliable 2nd-tier Procedure for Characterizing Devices with N+1 Ports Using an N-Port VNA Ziad Hatab[1], Bart Schrijver[1] [1]Keysight
14:10 – 14:30	**EuMC27-2** Fully Formula-Based Design Approach of Asymmetric-Response Transmission-Line Filters Without Electromagnetic Coupling Tests Hyunjong Choi[1], Juseop Lee[1] [1]Korea University	**EuMC28-2** Phase-offset Based Sidelobe Suppression for Co-frequency Multi-beam Systems Chanhee Lee[1], Seong-Ju Lim[1], Young-Jun Lim[1], Ga-Yeong Park[1], Chihyun Cheong[2], Jong-Won Yu[1] [1]Korea Advanced Institute of Science and Technology, [2]Hanwha Systems	**EuMC29-2** Enhancing Microstrip Resonators through LTCC and new Photo-imageable Paste Technology Martin Ihle[1], Lynn Ratajczak[1], Kathrin Reinhardt[1], Stefan Körner[1], Benedykt Sikorski[2], Kamil Trzebiatowski[2], Łukasz Kulas[2], Krzysztof Nyka[2] [1]Fraunhofer Institut for Ceramic Technologies and Systems - IKTS, [2]Gdansk University of Technology	**EuMC30-2** Automatic Probe Adjustment for 4-port On-wafer Measurement Without VNA Calibration Ryo Sakamaki[1], Seitaro Kon[1], Takeshi Yoshida[2], Satoshi Tanaka[2], Shuhei Amakawa[2], Minoru Fujishima[2] [1]National Institute of Advanced Industrial Science and Technology, [2]Hiroshima University
14:30 – 14:50	**EuMC27-3** A Wideband Superconducting Filter with Extended Stopband Rejection for Radio Astronomy Receivers Bahare Mohamadzade[1], Alex Dunning[1], Ken Smart[1], Douglas B. Hayman[1], Yoon Chung[1], Santiago Castillo[1], Stephanie Smith[1] [1]Commonwealth Scientific and Industrial Research Organisation	**EuMC28-3** Polarization-Agile SatCom Antennas with Beamforming Chips on a Hexagonal Grid Bilal Cetin[1], Rens Baggen[1], Jens Leiss[1], Pia Bergtholdt[1], Jürgen Kunisch[1], Constantine Kakoyiannis[1], Michael Wleklinski[1], Jochen Mosig[1], Wolfgang Wischmann[1] [1]IMST GmbH	**EuMC29-3** Compact WPT System Using Four Resonators for Biomedical Implants Aboualalaa Mohamed[1], Ramesh K. Pokharel[2] [1]Kyushu University, [2]Binghamton University, Binghamton, NY 13902, USA	**EuMC30-3** Enhanced Machine-Learning Based Probe Alignment for On-Wafer RF Measurements Domenico Vitali[1], Alessandro Chillico[2], Bruno Puri[3], René Heldmaier[3], René Pascal Klausen[3], Wojciech Samek[3], Olof Bengtsson[1] [1]Ferdinand Braun Institut gGmbH (FBH), [2]FBH-Berlin, [3]Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute, HHI
14:50 – 15:10	**EuMC27-4** Substrate-Embedded Ka-Band Input Filter for Satellite Multibeam Payloads Paolo Vallerotonda[1], Andriy Verbitskyy[1], Luca Pellicia[1], Francesco Vitulli[2], Aurora De Padova[2], Sergio Di Nardo[2], Oilid Bouzekri[3], Francois Deborgies[3] [1]RF Microtech s.r.l, [2]THALES ALENIA SPACE (ITALY), [3]ESA ESTEC	**EuMC28-4** Monolithic Dual-Polarized Leaky-Wave Array with Off-Axis Pointing, 36 dBi Gain and "..." Valentin Lourenço Martins[1], Erwan Rahault[2], Aurélie Dorlé[3], Stéphane Méric[2], Esteban Menargues[4], María García-Vigueras[2] **EuMC CP & YEP nominee** [1]ONERA/DEMR, Univ. de Toulouse and Univ. Rennes, INSA, CNRS, IETR- UMR 6164, [2]Univ. Rennes, INSA Rennes, CNRS, IETR- UMR 6164, [3] ONERA/DEMR, Univ. de Toulouse, [4]SWISSto12	**EuMC29-4** Design of a Dual-Band Polarization-Insensitive Rectifying Metasurface for Wireless Power Transfer Kai Song[1], Liping Yan[1], Changjun Liu[1] [1]Sichuan University	**EuMC30-4** Influence of RF Probe Tip Geometry on Surface Wave Generation in Millimeter-Wave on-Wafer Characterization Arash Masrouri[1], Quentin Courte[1], Jean-Pierre Raskin[1], Dimitri Lederer[1] [1]ICTEAM, Université catholique de Louvain, Belgium
15:10 – 15:30	**EuMC27-5** Split-Type Dual- and Tri-Band Filter Design Using Miniaturized Substrate-Integrated Coaxial Cavities Min-Hua Ho[1], Wanchu Hong[1], Gwan-Wei Su[2], Mingchih Chen[3] [1]National Changhua University of Education, [2]Wistron Technology Inc., [3]Fu Jen Catholic University	**EuMC28-5** Dual Pattern Elements for Scan Loss Reduction in Wide-angle Scanning Phased Arrays Giacomo Giannetti[1], Stefano Maddio[1], Monica Righini[1], Stefano Selleri[1] [1]University of Florence	**EuMC29-5** Establishing BackCom Links Beyond Antenna Resonances Yishan Wang[1], Jayakrishnan Methapettyparambu Purushothama[1], Wei Gong[2], Symon K. Podilchak[3], George Goussetis[1], Vincent Fusco[4], Yuan Ding[1] [1]Heriot-Watt University, [2]University of Science and Technology of China, [3]University of Edinburgh, [4]Queen's University Belfast	**EuMC30-5** Experimental Study on the Repeatability of Nanoscale On-Wafer Calibration Structures on High Resistivity Silicon Substrate up to 110 GHz Daouda Seck[1], Djamel Allal[2], Kamel Haddadi[3] [1]LNE / University of Lille, [2]Laboratoire National de Metrologie et d'Essais (LNE), [3]University of Lille - IEMN

WEDNESDAY 13:50 – 15:30

ROOM	Flash	Glow	Progress	Mission 1
	EuMC31 THz Circuits and Systems Chair: Guillaume Ducournau[1] Co-Chair: Joachim Oberhammer[2] [1]University of Lille, [2]KTH Royal Institute of Technology	**EuMC32** Modelling for Remote Sensing and Scattering Chair: Andrea Neto[1] Co-Chair: Alessandro Galli[2] [1]TU Delft, [2]Sapienza University of Rome	**EuRAD04** Automotive Radar Data Processing 2 Chair: David Greig[1] Co-Chair: Martin Vossiek[2] [1]Leonardo UK, [2]Friedrich-Alexander University Erlangen-Nürnberg (FAU)	**EuRAD05** Industrial and Short-Range Radar Sensing Chair: Matthew Ritchie[1] Co-Chair: Francesco Fioranelli[2] [1]University College London, [2]TU Delft
13:50 – 14:10	**EuMC31-1** Superconducting Integrated Circuits for Sub-mm Wave Astronomy Jochem Baselmans[1], Akira Endo[2] **INDUSTRIAL KEYNOTE** [1]SRON Netherlands Institute for Space, TU Delft, Universität zu Köln, [2]TU Delft	**EuMC32-1** Fast Determination of the Monostatic Radar Channel in the Near-Field of Electrically Large Targets Bartosz Tegowski[1], Dominik Langer[1], Nils C. Albrecht[1], Alexander Kölpin[1] **EuMC YEP nominee** [1]Hamburg University of Technology (TUHH), Institute of High-Frequency Technology	**EuRAD04-1** MIMO-SAR Multi-Session Simultaneous Localization and Mapping Daniel Louback S. Lubanco[1], Ahmed Hashem[1], Markus Pichler-Scheder[2], Thomas Schlechter[3], Reinhard Feger[1], Andreas Stelzer[1] [1]Johannes Kepler University, [2]Linz Center Of Mechatronics Gmbh, [3]University of Applied Sciences Upper Austria	**EuRAD05-1** Multi-Purpose Handheld Photonic Terahertz FMCW Radar for Nondestructive Inspection of Thin and Thick Layers of Paint-Coated Glass Fiber-Reinforced Composites Shiva Mohammadzadeh[1], Raphael Hussung[1], Maris Bauer[1], Fabian Friederich[1], Dominik Gundacker[1] [1]Fraunhofer ITWM
14:10 – 14:30	**EuMC31-2** 320-GHz InP-HEMT Low Noise Amplifier with Modified Ridge Coupler Ibrahim Abdo[1], Hiroshi Hamada[1], Teruo Jyo[1], Takuya Tsutsumi[1], Tarou Sasaki[1], Hiroyuki Takahashi[1] [1]NTT Corporation	**EuMC32-2** A fast method for real-time SAR computation in homogeneous virtual models in the HF to the low-UHF bands Daniele Ferrante[1], Micol Colella[1], Giuseppe Vecchi[2], Francesca Apollonio[1], Micaela Liberti[1] [1]DIET, Sapienza, University of Rome, Italy, [2]LACE, Politecnico di Torino	**EuRAD04-2** Radar-based In-Vehicle Heart Rate Estimation with an AI-based Validity Check Philipp Stockel[1], Patrick Wallrath[1], Sandra Nowok[1], Maria A. Gonzalez Huici[1] [1]Fraunhofer Institute for High Frequency Physics and Radar Techniques (FHR)	**EuRAD05-2** A Novel Doppler Radar Setup with a Wireless Reference Connection for the Near-Range Particle Detection Kennet Braasch[1], Alexander Teplyuk[1], Michael Höft[1] [1]Kiel University
14:30 – 14:50	**EuMC31-3** High Power Characterization of SIW-based D-band Traveling Wave Amplifiers Weifeng Wu[1], Lei Li[2], James C. M. Hwang[2], Patrick Fay[1] [1]University of Notre Dame, USA, [2]Cornell University, Ithaca, NY	**EuMC32-4** 3D-Modeling of Electro-Magnetic Parameters of Microwave Plasmas Christoph Schopp[1], Holger Heuermann[1] [1]FH Aachen, University of Applied Sciences	**EuRAD04-3** Over-the-Air Virtual Scenario Emulation for Vehicle-in-the-Loop Testing with Improved Accuracy Muhammad Luqman Nazar[1], Masoumeh Pourjafarian[1], Matthias A. Hein[1] [1]Technische Universität Ilmenau	**EuRAD05-3** Radar-based Analysis of Combustion Processes Using a Stabilized FMCW Radar in W-Band Daria Tsukanova[1], Francesca Schenkel[1], Irwin Barengolts[1], Dennis Pohle[1], Ilona Rolfes[1], Christian Schulz[1] [1]Ruhr University Bochum
14:50 – 15:10	**EuMC31-4** A Photonic Assisted Visible Light FMCW Lidar System for Large Aperture Phased Array MIMO Based on LEDs Stephan Kruse[1], Jan Brockmeier[1], Max Schwengelbeck[1], Tobias Schwabe[1], J. Christoph Scheytt[1] [1]Paderborn University, Department of Electrical Engineering, Heinz Nixdorf Institute	**EuMC32-5** A PMCHWT-SMW Based Fast Solver for the EM Scattering Problems of Composite Metallic-Dielectric Structures Jie Kang[1], Jihong Gu[1], ZhaoYuan Wang[1], Dazhi Ding[1] [1]Nanjing University of Science & Technology	**EuRAD04-4** Aiding Radar Odometry with S-57 Nautical Charts for GNSS-free and Compass-free Pose Estimation Christian Denker[1], Carl Wölper[2], Sebastian Stäudte[2], Jens Wilbertz[1] [1]Jade Hochschule University of Applied Sciences, [2]University of Bremen	**EuRAD05-4** Depth Map Reconstruction from Low-altitude UAV Hamed Javadi[1], Hichem Sahli[1], André Bourdoux[1] [1]IMEC
15:10 – 15:30	**EuMC31-5** A High-Gain 300 GHz Upconversion Mixer Circuit in SiGe 130nm BiCMOS Technology Enrico Jimenez Tuero[1], Seyyid Dilek[1], Andrea Malignaggi[1], Corrado Carta[2] [1]IHP - Leibniz-Institut für innovative Mikroelektronik, [2]IHP - Leibniz Institut für innovative Mikroelektronik, Technische Universität Berlin		**EuRAD04-5** Automotive SAR for Advanced Road Debris Detection Theresa Noegel[1], Marc Reinecke[1], Oliver Sura[1], Max Heidbrink[1], Marcel Hoffmann[1], Martin Vossiek[1] **EuRAD YEP nominee** [1]Institute of Microwaves and Photonics (LHFT), Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany	**EuRAD05-5** Improving the Accuracy of Pseudo-Transmission Measurements in Material Charakterization Kits by Modulated Loads Jan Barowski[1], Birk Hattenhorst[2], Javagar Mahendran[1], Timo Jaeschke[2], Ilona Rolfes[1] [1]Ruhr University Bochum, [2]2pi-Labs GmbH

WEDNESDAY 14:50 – 15:30

ROOM **Media Arena**

EuMC/EuRAD-PP

1-Minute Poster Pitch: EuMC/EuRAD

Chair: Mark S. Oude Alink[1]

Co-Chair: Francesco Fioranelli[2]

[1]University of Twente, [2]TU Delft

14:50 – 15:30

1-Minute Poster Pitch: EuMC/EuRAD

NEW at EuMW: 1-Minute Poster Pitches! Join us for this exciting and fast-paced new format in which posters are pitched in a maximum of one minute. In this session, the posters of EuMC/EuRAD02 will be pitched.

WEDNESDAY 16:10 – 17:50

These posters will have 1-minute pitches in EuMC/ EuRAD-PP on Wednesday afternoon before this session!

Hall 7

EuMC/EuRAD02

EuMC/EuRAD Interactive Poster Session

Chair: Francesco Fioranelli[1]

Co-Chair: Mark S. Oude Alink[2]

[1]TU Delft, [2]University of Twente

EuMC/EuRAD02-1
A 10W, High Gain, Multi-Octave Bandwidth Driver Amplifier for HF Radar's Transmitter Application

Chiranjit Majumder Chiranjit Majumder[1], Nagaditya Poluri Nagaditya Poluri[1], Basudev Majumder Basudev Majumder[2]

[1]Indian Institute of Technology Kanpur, [2]Indian Institute of Space Science and Technology, Thiruvananthapuram

EuMC/EuRAD02-2
Power amplifier modeling and active antenna simulation

Jeremy Michel[1], Guillaume Neveux[1], Cyrille Menudier[1], Marc Thévenot[1], Clément Hallépée[1], Damien Pithon[2], Faycel Fezai[2], Michel Stanislawiak[2]

[1]XLIM - CNRS - Universite de Limoges, [2]Thales Land & Air Systems

EuMC/EuRAD02-3
Active Backscatter Modulation using FMCW Radar Sensor for V2X Communication

Christoph Domnik[1], Michael Meuleners[1], Christoph Degen[1]

[1]Hochschule Niederrhein University of Applied Sciences

EuMC/EuRAD02-4
A Local Interferometric Technique to Distinguish Between Different Radio-Vortices at 15 GHz

Lorenzo Scalcinati[1], Bruno Paroli[1], Mirko Siano[1], Marco A.C. Potenza[1]

[1]University of Milan

EuMC/EuRAD02-5
A Multi-Band Full-Duplex Prototype for Integrated Sensing and Communication

Bixing Yan[1], Andre Kokkeler[1], Yang Miao[1]

[1]University of Twente

EuMC/EuRAD02-6
Extraction of target poles with high accuray matrix pencil method based on ultra-wideband radar

Junyi Huang[1], Yu Ji[1], Yang Wu[1], Ang Liu[1], Yafeng Wang[1], Yuqi Tan[1], Shen Dong[1], Guangxin Wu[1], Yuhao Yang[1], Linghao Xia[1]

[1]Nanjing Research Institute of Electronics Technology

EuMC/EuRAD02-7
Compact and Lightweight Harmonic Tags for Insect Tracking with an X-Band Harmonic Radar

Andrei Mogilnikov[1], Anastasia Lavrenko[1]

[1]University of Twente

EuMC/EuRAD02-8
Evaluation of the Downlink Communication Parameters of an Indoor 5G Non-Public Network for the Constant Jammer Detection

Jimmy Nauzad[1], Maximilian Lübke[2], Norman Franchi[3]

[1]Friedrich-Alexander-Universität Erlangen-Nürnberg, [2] Friedrich-Alexander-Universität Erlangen-Nürnberg , [3]Friedrich-Alexander Universität Erlangen-Nürnberg

EuMC/EuRAD02-9
Low-cost phased array for land mobile application

Przemyslaw Gorski[1], Frederic Bongard[1], Daniel Llorens del Rio[1], Alvaro Diaz Bolado[1], Michael Elsbury[1], Maxime Renard[1], Jose Sarmiento[1], Maria Carolina Viganó[1]

[1]ViaSat Antenna Systems SA

EuMC/EuRAD02-10
Eigenvector Informed Precoder Design for Active MIMO Transmitters

Jiayu Hou[1], George Goussetis[2], John Thompson[3], Yuan Ding[4]

[1]Heriot-Watt University and the University of Edinburgh, [2]Heriot Watt University, [3]University of Edinburgh, [4]Heriot-Watt University

EuMC/EuRAD02-11
Application of Gradient Descent Algorithm in RFC Optimization and Data Transmission Strategy of MIMO System

Yifeng He[1], Yinyu Wei[1], Feng Su[1]

[1]Xi'an Institute of Space Radio Technology

WEDNESDAY 16:10 – 17:50

ROOM	Mission 1	Mission 2	Quest	Expedition
	EuMC/EuRAD01 Special Session: Dutch Ecosystem for Defence Radar Chair: Ronny Harmanny[1] Co-Chair: Frank E. van Vliet[2] [1]Thales Nederland B.V., [2]TNO Defense, Safety and Security	**EuMC33** Innovations in Gap Waveguide Technology Chair: Vicente Enrique Boria-Esbert[1] Co-Chair: Nicolas Delhote[2] [1]Technical university of Valencia, [2]XLIM Research Institute, University of Limoges	**EuMC34** Antenna Arrays and Beamforming Networks II Chair: Stefania Monni[1] Co-Chair: Kamil Yavuz Kapusuz[2] [1]TNO Defense, Security and Safety, [2]IMEC-Ghent University	**EuMC35** Bioelectromagnetic Interaction for Healthcare Applications Chair: Katia Grenier[1] Co-Chair: Chung-Tse Michael Wu[2] [1]LAAS-CNRS, [2]Rutgers University
16:10 – 16:30	**EuMC/EuRAD01-1** Excellence in Radar Systems: The Netherlands in the lead Frank E. van Vliet[1] [1]TNO Defense, Safety and Security	**EuMC33-1** Passive Components, Active Innovation: Gap Waveguide Technology for Next-Generation Millimeter Wave Circuits Abbas Voosogh[1] **INDUSTRIAL KEYNOTE** [1]Gapwaves AB	**EuMC34-1** Additively manufactured antennas and slotted waveguide (array) antennas Mark Sippel[1], Konstantin Lomakin[1] **INDUSTRIAL KEYNOTE** [1]Golden Devices GmbH	**EuMC35-1** 120 Mb/s Fat-Intrabody Communication (Fat-IBC) Johan Engstrand[1], Ted Johansson[1], Roger L. Karlsson[1], Robin Augustine[1] [1]Uppsala University
16:30 – 16:50	**EuMC/EuRAD01-2** Anticipating the Threat Dolf Verhoeven[1] [1]NLD MoD / Materiel and IT Command	**EuMC33-2** Passive Intermodulation Mitigation in Waveguide Bandpass Filters Using Groove Gap Waveguide Technology Mónica Martínez Mendoza[1], Raúl Cervera[1], Davide Smacchia[2], Jose Vicente Morro Ros[1], Pablo Soto Pacheco[1], Vicente Enrique Boria-Esbert[1] [1]Universitat Politècnica de València, [2]ESA-VSC European High Power RF Space Laboratory	**EuMC34-2** Dual-Polarized Cosecant-Squared Beam-Shaped Array Antenna for mmWave Mobile Communications Ahmed Ashoor[1], Mehri Borhani Kakhki[1], Wenyao Zhai[1], Hari Krishna Pothula[1], David Wessel[1] [1]Huawei Technologies Canada Co.	**EuMC35-2** Dielectric Tissue Phantom Fabrication and Automated Compression Test System for Non-Invasive Blood Glucose Monitor Dominika Kazieczko[1], Maxime Weiss[2], Bettina Gouyet[2], Adrian Porch[3], Heungjae Choi[3] [1]University of Cambridge, [2]INP/ENSEIRB-MATMECA Bordeaux, France, [3]Cardiff Univeristy
16:50 – 17:10	**EuMC/EuRAD01-3** Radar systems at Thales Nederland, past, present and the future Hans Schurer[1] [1]Thales Nederland B.V.	**EuMC33-3** 3D printed 260 GHz drawer-like bandpass filter using groove gap waveguide concept Aurélien Périgaud[1], Nicolas Delhote[1], Damien Passerieux[1], Christian Wolff[2], Andreas Frölich[2] [1]XLIM Research Institute, University of Limoges, Limoges, France, [2]Horizon Microtechnologies GmbH	**EuMC34-3** A 4:1 Dual-Polarized Connected Array Prototype with Parallel Plate Waveguide Feeds Riccardo Ozzola[1], Ulrik Imberg[2], Daniele Cavallo[1] [1]Delft University of Technology, [2]Huawei Technologies AB	**EuMC35-3** Experimental Setup for Modulated Electro- Hyperthermia (mEHT) Investigations with Arbitrary Modulation and Real-Time Impedance Monitoring Christoph Schulze[1], Eva Oberacker[2], Paraskevi Danai Veltsista[2], Anna Dieper[2], Pirus Ghadjar[2], Wolfgang Heinrich[1], Olof Bengtsson[1] [1]FBH, [2]Charité-Universitätsmedizin Berlin
17:10 – 17:30	**EuMC/EuRAD01-4** Radar research and education at Dutch academia Alexander Yarovoy[1] [1]Delft University of Technology	**EuMC33-4** Optimized Flange Designs for a Multigap-Waveguide Liquid Crystal Phase Shifter at Ka-Band Marc Späth[1], Robin Neuder[1], Téo Nespoulet[2], Martin Schüßler[1], Rolf Jakoby[1], Alejandro Jiménez-Sáez[1] [1]TU Darmstadt, [2]Univ. Rennes, INSA Rennes, CNRS	**EuMC34-4** Wide Angle Scanning Phased Array Antenna for Ka-band Applications Chanyalew Zewdu DAGNAW[1], Cyrille Menudier[1], Marc Thévenot[1] [1]Xlim - UMR 7252 - CNRS- Université de Limoges	**EuMC35-4** Optimizing Prediction of Electromagnetic and Biological Parameters for Cardiac Ablation Using Deep Learning Raffaele Crusi[1], Nicolò Colistra[2], Francesca Camera[2], Giuseppina Monti[1], Marco Salvatore Zappatore[1], Caterina Merla[2], Luciano Tarricone[1] [1]University of Salento, Italy, [2]ENEA, Italy
17:30 – 17:50	**EuMC/EuRAD01-5** Radar Innovation at TNO's Department of Radar Technology Jacco de Wit[1] [1]TNO Defense, Safety and Security	**EuMC33-5** Ku-Band Sharp-Rejection Dual-Band Bandpass Filter in Groove Gap Waveguide Using Input/Output Extracted Cavities and Frequency Transformation Mohamed Malki[1], Roberto Gómez-García[1] [1]University of Alcalá	**EuMC34-5** A Wide-Scanning Evanescent Mode Waveguide Array with Enhanced Thermal Performance Thijs Brouwers[1], Guilherme Theis[2], Bart Smolders[2], Diego Caratelli[1] [1]The Antenna Company, [2]Eindhoven University of Technology, The Netherlands	**EuMC35-5** Instantaneous Electromagnetic Exposure from Vehicle-to-Everything Communication Tobias Struck[1], Berk Altinel[1], Christian Bornkessel[1], Matthias A. Hein[1] [1]Technische Universität Ilmenau

WEDNESDAY 16:10 – 17:50

ROOM	Polar	Spark	Flash
	EuMC36 MTT-ISTP Panel Session: Photovoltaic Power Orbital Station – A Future at Reach with Microwaves? Chair: Simon Hemour[1] Co-Chair: Naoki Shinohara[2] [1]Bordeaux University, IMS Laboratory, [2]Kyoto University	**EuMC37** Measurements of Active Devices Chair: Denis Barataud[1] Co-Chair: Mauro Marchetti[2] [1]Xlim - UMR 7252 - CNRS- Limoges University, [2]Maury Microwave	**EuMC38** Focussed Session: Terahertz Technologies - Actual and Future Trends Chair: Dirk Nüßler[1] Co-Chair: Christoph Reising[1] [1]Fraunhofer FHR
16:10 – 17:50	**MTT-ISTP Panel Session: Photovoltaic Power Orbital Station - A Future at Reach with Microwaves?** With solar panels collecting power nights and days, space-based wireless power holds great promise for providing clean, reliable energy. However, the project scales are so huge that significant technological, economic, and environmental challenges must be overcome before it can become a viable solution. Ambitious programs are being started around the world to meet the challenge. In this panel, experts will share their knowledge and vision and engage interactions with the audience on this game-changer. Moderator: • Simon Hemour, Bordeaux University, France Panelists: • Stela Tkatchova, European Innovation Council • Sanjay Vijendran, Space Energy Insights, The Netherlands • Koichi Ijichi, J-Spacesystems, Japan • Duan Baoyan, Xidian University, China • Martin Soltau, Space Solar, UK • Nuno Borges Carvalho, University of Aveiro, Portugal Contacts: • Ke Wu, Polytechnique Montréal, Canada J.-C. Chiao, Southern Methodist University, USA		
16:10 – 16:30		**EuMC37-1** Recent Advances in Load-Pull and Noise Parameter Measurement Techniques Mauro Marchetti[1] **INDUSTRIAL KEYNOTE** [1]Maury Microwave	**EuMC38-1** Current Trends in Terahertz Technology - Transition from Fundamentals to Practical Applications Christoph Reising[1], Dirk Nüßler[2], Steffen Hansen[1], Christian Bredendiek[1], Dominic Funke[1], Till Ziegler-Bellenberg[1], Siying Wang[1], Patrick Wallrath[1], Jan Wessel[1] [1]Fraunhofer Institute for High Frequency Physics and Radar Techniques (FHR), [2]Ruhr University Bochum
16:30 – 16:50		**EuMC37-2** On the Repeatability of Low-Cost Varactor-Based RF Impedance Tuners Jonathan Okocha[1], Cristina Andrei[1], Matthias Rudolph[2] [1]Brandenburg University of Technology (BTU), [2]Ulrich L. Rohde Chair of RF and Microwave Techniques, Brandenburg University of Technology (BTU), Cottbus, Germany	**EuMC38-2** Development and Design of THz-Pulse Generators for Broadband Pulse-Based Transceiver Systems Olga Krylova[1], Klaus Aufinger[2], Nils Pohl[3] [1]Ruhr-University Bochum, [2]Infineon Technologies AG, [3]Ruhr University Bochum
16:50 – 17:10		**EuMC37-3** On-Wafer 16-Term Calibration for Characterization of InP HBTs Featuring Sub-THz fmax Abhijeet Kanitkar[1], Ralf Doerner[1], Tom Keinicke Johansen[2], Wolfgang Heinrich[1], Thomas Flisgen[1] [1]Ferdinand-Braun-Institut, [2]Technical University of Denmark	**EuMC38-3** Towards Energy-Efficient High-Speed THz Communications Links Nuria LLombart Juan[1] [1]TU Delft
17:10 – 17:30		**EuMC37-4** Thermal Characterization of Radio Frequency Power Amplifier with Thermal Transient Test Amir Mirza Gheytaghi[1], Zoltan Sarkany[2], Vittorio Cuoco[1] [1]Ampleon, [2]Siemens	**EuMC38-4** Sub-mm wave Thermal Radiation from Silicon Wafers Andrea Neto[1], Paolo Sberna[1], Laurens Beijnen[1], Juan Bueno[1], Marco Spirito[1] [1]TU Delft
17:30 – 17:50		**EuMC37-5** In-Situ Calibration with Silicon-Based Noise Diode for Enhanced Industrial RF Testing Samuel NGUYEN DINH AN[1], Cybelle Belem Goncalves[2], Victor Fiorese[2], Daniel Gloria[2], Federico Alimenti[3], Giacomo Schiavolini[3], Guillaume Ducournau[4], Joao Carlos Azevedo Goncalves[2] [1] Univ. Lille, CNRS, [2]STMicroelectronics, [3]University of Perugia, [4]IEMN, Univ. Lille	**EuMC38-5** An Integrated Terahertz Near-Field Edge Sensing Probe in a 130-nm SiGe Technology Xinpeng Du[1], Marcel Andree[1], Janusz Grzyb[1], Holger Rücker[2], Ullrich R. Pfeiffer[1] [1]University of Wuppertal, [2]IHP - Leibniz-Institut für innovative Mikroelektronik

WEDNESDAY 16:10 – 17:50

ROOM	Glow	Progress
	EuMC39 Numerical Modelling Chair: Oscar Quevedo-Teruel[1] Co-Chair: Luca Perregrini[2] [1]KTH Royal Institute of Technology, [2]University of Pavia	**EuRAD06** Beamforming in Phased Array Radars Chair: Marc Bauduin[1] Co-Chair: Sen Yuan[2] [1]Interuniversity Microelectronics Centre (Imec), [2]TU Delft
16:10 – 16:30	**EuMC39-1** A Fast Frequency Sweep Method for Second-order EM Adjoint Sensitivity Analysis Based on MOR Jianguo Xue[1], Feng Feng[1], Jinyi Liu[1], Xiaolong Li[1], Mutian Li[1], Jiali Zhang[1], Qi-Jun Zhang[2] [1]Tianjin University, [2]Carleton University	**EuRAD06-1** Broadband Beam Steering Algorithm for a Ka-Band AESA Frontend Lukas Schmitz[1], Olaf Saalmann[2] [1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR), [2]Fraunhofer FHR, (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR)
16:30 – 16:50	**EuMC39-2** An Adaptive Frequency Sweep Algorithm Employing Additive Perturbation in the Loewner Matrix Model for Electromagnetic Simulations Shilpa T N[1] [1]National Institute of Technology Rourkela	**EuRAD06-2** Multi-Modal Radar and LiDAR Mapping of Marine Infrastructure at Millimeter and Sub-THz Frequencies Anum Pirkani[1], Dillon Kumar[2], Natalie Reeves[3], Mikhail Cherniakov[2], Marina Gashinova[3] [1]The University of Birmingham, [2]University of Birmingham, [3]University of Birmingham, UK
16:50 – 17:10	**EuMC39-3** A 3D TCAD Thermal vs. Electro-Thermal Analysis of Large Area Discrete RF Power Transistors Gabriele Formicone[1] [1]Integra Technologies, Inc.	**EuRAD06-3** An Efficient Sparse Iterative Recovery Algorithm for DOA Estimation in Automotive FMCW Radar Yuxuan Zhang[1], Zihan Yang[1], Zhifei Wang[1], Kai Yang[1] [1]Calterah Semiconductor Technology Co., Ltd, China
17:10 – 17:30	**EuMC39-4** Double-Resonance Diffraction Radiation Antenna Grating Exited by Modulated Electron Beam Dariia Herasymova[1] [1]Institute of Radio-Physics and Electronics NASU	**EuRAD06-4** Iterative Adaptive Thresholding for 2D Estimation in Sparse Radar Arrays: Performance Analysis and Experimental Validation Aitor Correas-Serrano[1], Christian Kurtscheid[1], Maria A. Gonzalez Huici[1], Gunnar Briese[1] [1]Fraunhofer FHR
17:30 – 17:50	**EuMC39-5** Novel Design Dimension Reduction Technique for Internal Acceleration of 3-D EM Topology Optimization for Waveguide Structures Jiali Zhang[1], Feng Feng[1], Jing Jin[2], Ke Liu[1], Jianguo Xue[1], Qi-Jun Zhang[3] [1]Tianjin University, [2]Central China Normal University, [3]Carleton University	**EuRAD06-5** Deep Learning-Based Inverse Covariance Matrix Reconstruction for Single-Snapshot Direction-of-Arrival Estimation Zihan Yang[1], Zhifei Wang[1], Yuxuan Zhang[1], Kai Yang[1] [1]Calterah Semiconductor Technology Co., Ltd, China

THURSDAY 08:30 – 10:10

ROOM	Mission 1	Auditorium	Quest	Expedition
	EuMC/EuRAD03 Design of (MIMO) Radar Antenna Arrays Chair: Reinhard Feger[1] Co-Chair: Rob van der Meer[2] [1]Johannes Kepler University Linz, [2]Robin Radar Systems	**EuMC/EuRAD04** Special Session: Space Microwave Technology - The ESA Experience Chair: Iain Davies[1] Co-Chair: Elisa Cipriani[1] [1]ESA / ESTEC	**EuMC40** Machine Learning and Optimization Chair: Tom Dhaene[1] Co-Chair: Luca Perregrini[2] [1]UGent-imec, [2]University of Pavia	**EuMC41** Integration and Reconfiguration Approaches for Non-Planar Filters Chair: Michael Höft[1] Co-Chair: Eric Rius[2] [1]Christian-Albrechts-Universität zu Kiel, [2]Université de Brest
08:30 – 08:50	**EuMC/EuRAD03-1** Sparse Array Design for Cost-Efficient Automotive Imaging Radar Ebrahim Sadeghpour[1], Saied Sedighi[1], Marco Heinen[1], Maximilian Pöpperl[1] [1]Valeo Schalter und Sensoren GmbH	**EuMC/EuRAD04-1** Q-band Front End Radiating Module for next generation active antennas at Thales Alenia Space Vincent Oullion[1] [1]Thales Alenia Space	**EuMC40-1** Functionality Pre-encoding: Indirect Learning Technique for Radio Frequency Devices Characterization Abdullah Abdelrahman[1], Ahmed Kishk[2] [1]Concordia University, [2]CONCORDIA UNIVERSITY	**EuMC41-1** Compact Reconfigurable Filtering Components Using Dual-Mode TM-Mode Dielectric Resonators Abdulrahman Widaa[1], Michael Höft[2] [1]Physikalisch-Technische Bundesanstalt, [2]Kiel University
08:50 – 09:10	**EuMC/EuRAD03-2** Sidelobe Level Reduction in Antenna Arrays via Element Spacing Optimization Masoud Dorvash[1], Oliver Lang[1], Reinhard Feger[1] [1]Johannes Kepler University Linz - JKU	**EuMC/EuRAD04-2** GaN MMIC Based Solid State Power Amplifier for X Band for Long Range High Capacity Communication Benoit Lefebvre[1] [1]Thales Alenia Space	**EuMC40-2** Synthesis of 3-Pol Low-Cost Phased Arrays Via Element Polarization Optimization Eren Hamamci[1], Jonas Heylen[1], Guilherme Theis[2], Yanki Aslan[1] [1]TU Delft, MS3, [2]Robin Radar Systems	**EuMC41-2** Plastic 3D-Printed Tunable Microwave Filters for Very Low-Cost Applications Axel Detrain[1], Marco Guglielmi[2] [1]SRON, [2]Universidad Politécnica de Valencia
09:10 – 09:30	**EuMC/EuRAD03-3** 76.5 GHz Hybrid Phased Array Radar with Grating-lobes-free Array Distribution for Automotive Radar Applications Masato Kohtani[1], Sungwoo Cha[1], Toshihiko Matsuoka[1], Shinji Yamaura[1] [1]MIRISE Technologies Corporation	**EuMC/EuRAD04-3** Taking a Leap in Integration Density for Radio Telescopes With a SiGe based Single-Chip LO Generation Tobias T. Braun[1], Marcel van Delden[1], Christian Bredendiek[2], Nils Pohl[3] [1]Ruhr University Bochum, [2]Fraunhofer FHR, [3]Ruhr University Bochum, Germany / Fraunhofer FHR, Germany	**EuMC40-3** Data-Driven Path Loss Estimation in Human Body Communication: Enhancing Efficiency via Parameter Prioritization and Transfer Learning Hamideh Esmaeili[1], Lijia Liu[2], Cheng Yang[1], Jianqing Wang[2], Christian Schuster[1] [1]Hamburg University of Technology (TUHH), [2]Nagoya Institute of Technology	**EuMC41-3** Monolithically Integrated Half-Cylindrical Resonator- Based Bandpass Filters Ajay Mothe[1], Dimitra Psychogiou[1] [1]Tyndall National Institute, University College Cork, Ireland
09:30 – 09:50	**EuMC/EuRAD03-4** Maximum Gain Multi-Beam Pattern Synthesis for Phased Array Radar using Convex Optimisation Wietse Bouwmeester[1], Rob van der Meer[1] **EuRAD YEP nominee** [1]Robin Radar Systems	**EuMC/EuRAD04-4** Characterization of a V-Ka band receiver module with ultra low noise figure, high gain and linearity for geostationary satellite communication Sascha Krause[1], Bård Erik Nordbø[1], Øystein Jensen[1], Grunde Joheim[1], Deokki Min[1], Sigmund Bardal[1], Stein Hollung[1] [1]Kongsberg Defence and Aerospace, Space Electronics	**EuMC40-4** Data-driven Full-Functionality Modeling of Broadband Radio Frequency Components Abdullah Abdelrahman[1], Ahmed Kishk[1] [1]Concordia University	**EuMC41-4** Coaxial Bandpass Stub Filters Based on a New Interconnection Eric Rius[1], Jessica Bénédicto[1], Jean François Favennec[2], Juan-Pablo Guzman Velez[1] [1]Lab-STICC University of Brest, [2]Lab-STICC/ENIB
09:50 – 10:10	**EuMC/EuRAD03-5** Optimizing MIMO Radar Antenna Array for Precise and Reliable 2D Direction of Arrival Estimation Reza Aliabadi[1], Thomas Zwick[2], Marlene Harter[1] [1]Institute for Unmanned Aerial Systems, Offenburg University, [2]Inst. of Radio Freq. Eng. and Electr., Karlsruhe Institute of Technology	**EuMC/EuRAD04-5** Characterization Method for a GaN Based Amplifier, Controlled in Amplitude and Phase through IQ Modulator and Drain Bias Regulation Fabrizio Marrese[1], Elia Pancini[2] [1]Leonardo SpA, [2]Leonardo Spa	**EuMC40-5** Accelerating Automated Microwave Planar Circuit Design Using Population-Based Metaheuristics with Models Addressing to Data Drift Yuta Takayama[1], Takuma Akada[1], Kazuhiro Fujimori[1] [1]Okayama University	**EuMC41-5** Ultra-Compact Inkjet-Printed Folded Waveguide Resonator-Based Bandpass Filters Berkay Dogan[1], Deepal Deepak Patil[2], Dimitra Psychogiou[1] [1]School of Engineering, University College Cork, Cork, T12 K8AF, Ireland , Tyndall National Institute, Cork, T12 R5CP, Ireland, [2]Tyndall National Institute, Cork, T12 R5CP, Ireland

THURSDAY 08:30 – 10:10

ROOM	Spark	Flash	Glow	Progress
	EuMC42 Reconfigurable Intelligent Surfaces Chair: Alejandro Jiménez-Sáez[1] Co-Chair: Dirk Heberling[2] [1]TU Darmstadt, [2]Aachen University	**EuMC43** Sustainable Technologies for Microwave Systems Chair: Jean-Pierre Raskin[1] Co-Chair: Bertrand Parvais [2] [1]Université catholique de Louvain, [2]imec & VUB	**EuMC44** Microwave Sensing Techniques for Biological and Medical Systems Chair: Luciano Tarricone[1] Co-Chair: Robin Augustine[2] [1]University of Salento, [2]Uppsala University	**EuRAD07** Radar Networks and Activity Monitoring Chair: Kamel Haddadi[1] Co-Chair: Fabian Lurz[2] [1]University of Lille, CNRS / IEMN, [2]Otto-von-Guericke University Magdeburg
08:30 – 08:50	**EuMC42-1** A Broadband Liquid Crystal Reconfigurable Intelligent Surface with 750 Elements Operating around 60 GHz Robin Neuder[1], Julia Schwarzbeck[1], Marc Späth[1], Alejandro Jiménez-Sáez[1] **EuMC CP nominee** [1]Technical University Darmstadt	**EuMC43-1** Life Cycle Assessment (LCA)-Driven Design for the Microwave Engineer: How to Develop Sustainable Wireless Systems? Mahmoud Wagih[1] **INDUSTRIAL KEYNOTE** [1]University of Glasgow	**EuMC44-1** Solenoid Transceive Coil for Rodent Imaging with 3T Deuterium MRI Rasmus Alexander Jepsen[1], Kristina Pilgaard Jacobsen[1], Wenjun Wang[1], Jan Henrik Ardenkjær-Larsen[1], Vitaliy Zhurbenko[1] [1]Technical University of Denmark (DTU), Kgs. Lyngby, Denmark	**EuRAD07-1** Ultra-Precise PTP Implementation Extended with a Kalman Filter for Wireless Clock Synchronization Enabling Signal Time-of-Flight and Distance Measurements Roghayeh Ghasemi, Tobias Koegel[1], Patrick Fenske[1], Danielle Gunders-Hunt[1], Martin Vossiek[1] **EuRAD CP nominee** [1]Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany
08:50 – 09:10	**EuMC42-2** Water-Controlled 1-bit Reconfigurable Surface Rasoul Fakhteh Balasi[1], Yi-Wen Wu[1], Yi Wang[1] [1]University of Birmingham	**EuMC43-2** On the Carbon Footprint of D-Band Point-to-Point Radio Links for 6G Wolfgang Heinrich[1], Andreas Wentzel[1], Lutz Stobbe[2] [1]Ferdinand-Braun-Institut (FBH), [2]Fraunhofer IZM	**EuMC44-2** Feasibility Study of UWB Radar for Non-Invasive Fluidothorax Monitoring Ondrej Fiser[1], Jakub Kollar[1], Marek Novak[1], Tomas Drizdal[1], David Vrba[1], Jan Vrba[1] [1]Czech Technical University in Prague, Faculty of Biomedical Engineering	**EuRAD07-2** Pose Estimation in the Near-Field of Sparse Arrays TAKUYA KAWAGUCHI[1], Christian Höller[2], Gabriel Schnoering[2] [1]Fujikura Ltd., [2]FTES AG
09:10 – 09:30	**EuMC42-3** The Choice of Time Gating Parameters for Characterization of the Reconfigurable Intelligent Surfaces with Continuous Amplitude and Phase Control Pavlo Krasov[1], Oleg Iupikov[1], Yuqing Zhu[1], Marianna Ivashina[1] [1]Chalmers University of Technology	**EuMC43-3** Sustainable wireless technologies with SUSTAIN 6G Olivier Bouchet[1], Marie-Hélène Hamon[1], Rodolphe Legouable[1], Bruno Jahan[1] [1]Orange Innovation	**EuMC44-3** Active UWB-Based Microwave Catheter Tracking: An In Silico Study for MWA Navigation Jakub Kollar[1], Barbora Smahelova[1], Marek Novak[1], Jan Vrba[1], Ondrej Fiser[1] [1]Czech Technical University in Prague, Faculty of Biomedical Engineering	**EuRAD07-3** Dual-Timescale Classification of Human Activities Using Radar Point Clouds Nicolas Kruse[1], Alec Daalman[1], Francesco Fioranelli[1], Alexander Yarovoy[1] [1]Delft University of Technology
09:30 – 09:50	**EuMC42-4** Design and Analysis of Phase Configuration in RIS-assisted Communication Systems Ga-Yeong Park[1], Hyo-Won Lee[1], Young-Jun Lim[1], Chanhee Lee[1], Ji-Young Kim[1], Jong-Won Yu[1] [1]School of Electrical Engineering, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea	**EuMC43-4** Advancing the Circular Economy: Enhancing Black Plastic Recycling through Sub THz Technology Sven Leuchs[1], Christian Krebs[2], Dirk Nüßler[2], Christopher Ludwig[2], Michael Gräf[2], Christopher Schwäbig[2], Josh Perske[2], Stefan Thomas Wickmann[2], Sabine Gütgemann[2] [1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR), [2]Fraunhofer FHR	**EuMC44-4** Detection of Dielectrically Heterogeneous 3D Multicellular Objects with Microwave Dielectric Spectroscopy Yuwei LI[1], Olivia Peytral-Rieu[1], David Dubuc[1], Katia Grenier[1] [1]LAAS-CNRS	**EuRAD07-4** Leveraging Electromagnetic Simulation and Deep Learning for Hand-Pose Estimation in Microwave Imaging Miriam Senne[1], Georg Schnattinger[1], Christoph Baur[1] [1]Rohde & Schwarz GmbH & Co. KG
09:50 – 10:10	**EuMC42-5** N78 Frequency Band Modular RIS Design and Implementation Sefa Kayraklık[1], Recep Baş[2], Hasan Oğuzhan Çalışkan[3], Samed Şahinoğlu[3], Sercan Erdoğan[2], İlhami Ünal[4], İbrahim Hökelek[1], Kıvanç Nurdan[3], Ali Görçin[1] [1]TUBITAK BILGEM - HISAR, [2]TUBITAK MAM - MILTAL, [3]TUBITAK BILGEM, [4]University College Dublin	**EuMC43-5** Thermal analysis of a transmission line made on a bio-sourced substrate using an analytical model Rim BERRO[1], Nhu-Huan Nguyen[1], Tân-Phu Vuong[1], Nicolas Corrao[1], Vincent Grennerat[1], Pascal Xavier[1] [1]Grenoble INP CROMA	**EuMC44-5** Single-Channel Continuous-Wave Radar for Multi-Target Vital Sign Detection via Spatio-Spectral Mapping with Space-Time Coding Array Shuping Li[1], Donglin Gao[1], Shaghayegh Vosoughitabar[2], Chung-Tse Michael Wu[3] [1]Rutgers University, [2]Apple Inc.,, [3]National Taiwan University	**EuRAD07-5** A Dataset on Human Activity Recognition with a Multistatic Radar Network Ann-Christine Fröhlich[1], Ingrid Ullmann[1] [1]Institute of Microwaves and Photonics - Friedrich Alexander University of Erlangen-Nürnberg

THURSDAY 09:30 – 10:10

ROOM **Media Arena**

EuMC-PP2

1-Minute Poster Pitch: EuMC

Chair: Mark S. Oude Alink[1]

Co-Chair: Kamil Yavuz Kapusuz[2]

[1]University of Twente, [2]IMEC-Ghent University/Belgium

09:30 – 10:10

1-Minute Poster Pitch: EuMC

NEW at EuMW: 1-Minute Poster Pitches! Join us for this exciting and fast-paced new format in which posters are pitched in a maximum of one minute. In this session, the posters of EuMC50 will be pitched.

THURSDAY 10:50 – 12:30

ROOM	Auditorium	Quest	Expedition	Spark
	EuMC/EuRAD05 Recent Developments in Antenna Measurements Chair: Marco Spirito[1] Co-Chair: A.J. van den Biggelaar[2] [1]Delft University of Technology, [2]ANTENNEX B.V.	**EuMC45** Special Session: Computational Electromagnetics in the Netherlands and Belgium Chair: Kristof Cools[1] Co-Chair: Martijn van Beurden[2] [1]Ghent University – imec, Dept. of Information Technology, IDLAB-EM group, [2]Eindhoven Univeristy of Technology	**EuMC46** Non-Planar Passive Components and Channel Filter Approaches Chair: Raafat R. Mansour[1] Co-Chair: Jordi Verdú[2] [1]University of Waterloo, [2]Universitat Autonoma de Barcelona	**EuMC47** Metasurfaces Chair: Erio Gandini[1] Co-Chair: Alejandro Jiménez-Sáez[2] [1]ESA ESTEC, [2]TU Darmstadt
10:50 – 11:10	**EuMC/EuRAD05-1** Realtime 3D Radiation Pattern Measurement: Experimental Demonstration Mohammad Azadifar[1], Carlos Romero[2] [1]HEIG-VD & EM Path, [2]Armasuisse Science and Technology	**EuMC45-1** Effective Forward and Inverse Numerical Solution Procedures in Computational Electromagnetics Rob Remis[1] [1]TU Delft	**EuMC46-1** Low Insertion Loss Transition Design for Repeatable Measurements of Polymer Microwave Fibers Lukas Ebner[1], Stefan Wögerbauer[2], Helmut Paulitsch[2], Siegfried Krainer[3], Michael Ernst Gadringer[1] [1]Christian Doppler Laboratory for Technology Guided Electronic Component Design and Characterization, [2]Graz University of Technology TU Graz, [3]Infineon Technologies Austria AG, Villach, Austria	**EuMC47-1** Dispersion-Diagram Beam Steering Analysis of a Dual-Band Multibeam Metasurface Antenna Based on Innovative Dynamic Spatial Harmonics Interval Mohammed Arif[1], Firas Dawod[2], Adrien Guth[1], Muh-Dey Wei[1], Dirk Heberling[1], Renato Negra[1] [1]RWTH Aachen University, [2]South Dakota Mines
11:10 – 11:30	**EuMC/EuRAD05-2** Amplitude-Only Measurement Based Calibration for Phased Arrays with Limited Power Detection Range Young-Jun Lim[1], Chanhee Lee[1], Hyeon-Jeong Cho[1], Ji-Young Kim[1], Hyuk-Ja Kwon[2], Jong-Won Yu[1] [1]Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea, [2]Hanwha Systems	**EuMC45-2** The future of Electromagnetic Engineering research and education, a NL-B perspective Peter Zwamborn[1] [1]TNO Defense, Safety and Security	**EuMC46-2** Development of a Dual-Circularly-Polarized W-band Receiver Front End Josip Vukusic[1] [1]Chalmers University of Technology	**EuMC47-2** The frequency intersection of toroidal multipole resonances in all-dielectric hexagonal metasurface Zoya Eremenko[1], Oleksiy Breslavets[1] [1]O. Ya. Usykov Institute for Radiophysics and Electronics, National Academy of Sciences of Ukraine
11:30 – 11:50	**EuMC/EuRAD05-3** Near-Field Test of Millimeter-Wave Patch Antenna Arrays with Dielectric Probes Athanasios Papanikolaou[1], Jan Hesselbarth[1], Jose Moreira[2] [1]University of Stuttgart, [2]Advantest Europe GmbH	**EuMC45-3** Modelling Quantum Effects in Metallic Nanoantennas with Deep-nanometric Features Xuezhi Zheng[1], Christos Mystilidis[1], Guy Vandenbosch[1] [1]KU Leuven	**EuMC46-3** Monolithically-Integrated Nested Ridge Waveguide Dual-Channel Filters Berkay Dogan[1], Dimitra Psychogiou[1] [1]School of Engineering, University College Cork, Cork, T12 K8AF, Ireland , Tyndall National Institute, Cork, T12 R5CP, Ireland	**EuMC47-3** A Mimicry Metasurface with Independent Amplitude-Phase Control for Radar Deception Boyang Qian[1], Hanjun Zhao[1], Hui Chu[1] [1]Nanjing University of Science and Technology
11:50 – 12:10	**EuMC/EuRAD05-4** Performance Characterization of an Active Phased Array Antenna by Simultaneously Measuring the Radiation Pattern and the Error Vector Magnitude Máté László Iványi[1], Gaetano Chirico[2], Yanki Aslan[1], Alexander Yarovoy[1], Marco Spirito[1] [1]Delft University of Technology, [2]University of Cassino and Southern Lazio	**EuMC45-4** Differential Surface Admittance Boundary Integral Equation Modeling of Advanced Interconnects Martijn Huynen[1], Daniël De Zutter[1], Dries Vande Ginste[1] [1]Ghent University - imec	**EuMC46-4** Compact Implementation of Novel Contiguous Multiplexer Serving Channels with Extreme Bandwidth Differences Mustafa Bakr[1], Smain Amari[2], Uwe Rosenberg[3] [1]University of Oxford/St Peter, [2]University of Oxford, [3]Mician Global Engineering GbR, Bremen	**EuMC47-4** Dual-Function Polarization-Rotating Metasurfaces for Beam Steering and Focusing Applications Mona Mohamed[1], Ahmed Mahmoud[2], Amr Safwat[2] [1] Faculty of Engineering, Ain Shams University, [2]Nile University, School of Engineering and Applied Sciences
12:10 – 12:30	**EuMC/EuRAD05-5** Compact Multi-Probe Planar Near Field Antenna Measurement System Martin Obermaier[1], Johannes Lange[2], Thomas Deckert[2], Marc Vanden Bossche[2], Dirk Plettemeier[1] **EuMC YEP nominee** [1]Technical University Dresden, [2]NI/Emerson	**EuMC45-5** Domain Decomposition Methods for the Flexible and Efficient Modelling of EM Fields Paul Olyslager[1], Hendrik Rogier[1], Kristof Cools[1] [1]Ghent University – imec, Dept. of Information Technology, IDLAB-EM group	**EuMC46-5** Extracting the Path of Rotations from the Orthogonal Transformation Matrix for a Filter with Irregular Coupling Ricardo Pampliega[1], Lluís Acosta[1], Gustavo Piris[1], Carlos Caballero[1], Jordi Verdú[1], Pedro de Paco[1] [1]Universidad Autonoma de Barcelona	**EuMC47-5** Multifunctional Reflective Metasurface Based on a Pair of Exceptional Points Chongpu Guo[1], Jiaran Qi[1] [1]Harbin Institute of Technology

THURSDAY 10:50 – 12:30

ROOM	Flash	Glow	Media Arena
	EuMC48 mm-Wave Antenna Arrays and Applications Chair: Mark Bentum[1] Co-Chair: Thomas Musch[2] [1]Eindhoven University of Technology (TU/e), [2]Ruhr-Universität Bochum	**EuMC49** Planar Sensors Chair: Alexander Kölpin[1] Co-Chair: Ilona Rolfes[2] [1]Hamburg University of Technology, [2]Ruhr University Bochum	**EuRAD-PP** 1-Minute Poster Pitch: EuRAD Chair: Mark S. Oude Alink[1] Co-Chair: Ronny Harmanny[2] [1]University of Twente, [2]Thales Nederland B.V.
10:50 – 11:10	**EuMC48-1** Antenna Arrays for Satellite Communications Maria Carolina Viganó[1] **INDUSTRIAL KEYNOTE** [1]Viasat	**EuMC49-1** Tunable Microwave Sensor for High- Sensitivity Detection of Minor Impurities in Liquids Mohammadmahdi Javanmardi[1], Vahid Nayyeri[1], Adib Abrishamifar[1], Ugur C. Hasar[2] [1]Iran University of Science and Technology, [2]University of Gaziantep	**11:50 – 12:30** **1-Minute Poster Pitch: EuRAD** NEW at EuMW: 1-Minute Poster Pitches! Join us for this exciting and fast-paced new format in which posters are pitched in a maximum of one minute. In this session, the posters of EuRAD12 will be pitched.
11:10 – 11:30	**EuMC48-2** A K/Ka Band 5G Satellite Payload for LIDE Mission Francesco Adamo[1], Simone Pauletto[2], Nicholas Sesto Gorella[3], Fabio Zanchetta[3], Andrea Loppi[3], Ivan Zabochin[3], Guendalina Simoncini[3], Mario Fragiacomo[3], Anna Gregorio[3], Sergio Carrato[2] [1]University of Trento (Italy), [2]University of Trieste, [3]PicoSaTs s.r.l.	**EuMC49-2** Low Profile and High Sensitivity Phase-Variation Sensor Applied to Relative Humidity Measurements Xavier Canalias[1], Paris Vélez[1], Pau Casacuberta[1], Lijuan Su[1], Nazmia Kurniawati[1], Ferran Martín[1] [1]Universitat Autònoma de Barcelona	
11:30 – 11:50	**EuMC48-3** Coverage Estimation of 5G mmWave in Indoor Environment considering Human Body Shadowing Hyeon-Jeong Cho[1], Ji-Hoon Lee[1], Ji-Young Kim[1], Dong-Min Seo[1], Yeong-Ju Seo[1], Jong-Won Yu[1] [1]Korea Advanced Institute of Science and Technology	**EuMC49-3** Planar Low-Cost Microwave Ring Resonator Temperature Sensor using a PDMS Active Layer Zabdiel Brito-Brito[1], Jesús Salvador Velázquez-González[1], Fermin Mira[1], Yi Wang[2], Ignacio Llamas-Garro[1] [1]Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Castelldefels, Barcelona, [2]University of Birmingham, UK	
11:50 – 12:10	**EuMC48-4** A 60 GHz Precise Reflection-Type Phase Shifter with Extremely Small Phase Shift, Based on GeTe Phase-Change Switches Ayoub Naoui[1], Clémence Hellion[2], Marjolaine Allain[2], Joey Denizart[2], Rémi VELARD[2], Loïc Vincent[3], Bruno Reig[2], Etienne Perret[1], Florence Podevin[1] [1]Grenoble Alpes University INP, [2]CEA Leti, Univ. Grenoble Alpes, F 38000 Grenoble, France, [3]CIME-Nanotech, University Grenoble Alpes, Grenoble Institute of Technology	**EuMC49-4** Terahertz Wave Profile Imaging Based on Phase-Shifting Interferometry Mahdi Montazery[1], Mohammad Neshat[2] [1]University of Tehran, [2]University of Sussex	
12:10 – 12:30	**EuMC48-5** Carrier Phase Noise Impact on OFDM Performance at D-band: Concepts and Experimental Assessment Yalin Zhou[1], Zichuan Zhou[1], Zhixin Liu[1], Izzat Darwazeh[1] [1]Department of Electronic and Electrical Engineering University College London (UCL)	**EuMC49-5** Highly Sensitive Capacitive Proximity Sensor Based on Microwave Technology Amirhossein Karami-Horestani[1], Ferran Paredes[1], Karl Adolphs-Saura[1], Amir Ebrahimi[2], Ferran Martín[1] [1]GEMMA/CIMITEC, Universitat Autònoma de Barcelona, [2]Royal Melbourne Institute of Technology (RMIT) University	

THURSDAY 10:50 – 12:30

These posters will have 1-minute pitches in EuMC-PP2 on Thursday morning before this session!

Hall 7

EuMC50
EuMC Interactive Poster Session 2

Chair: Kamil Yavuz Kapusuz[1]

Co-Chair: Mark S. Oude Alink[2]

[1]IMEC-Ghent University/Belgium, [2]University of Twente

EuMC50-1
Intermodulation Based Non-linear Behavior Prediction Towards Electronic Waste Reduction

Till Schmidt[1], Raphaël Dauny[1], Corinne Dejous[1], Valerie Vigneras[2], Laurent Oyhenart[1], Simon Hemour[1]

[1]IMS Bordeaux, [2]INP/ENSEIRB-MATMECA Bordeaux, France

EuMC50-2
Analytical Expressions for Antenna on-Chip Efficiency at mm-Wave and Sub-THz Frequencies

Louis Delait[1], Christophe Craeye[1], Jean-Pierre Raskin[1], Dimitri Lederer[1]

[1]ICTEAM, Université catholique de Louvain, Belgium

EuMC50-3
Characterization of D- and Y-Band Filters with a Photonic THz System Continuously Tunable from 130 to 510 GHz

Garrit Schwanke[1], Milan Deumer[1], Sebastian Lauck[1], Lars Liebermeister[1], Mehmet Ahad Yurtoglu[1], Ramez Askar[1], Michael Peter[1], Martin Schell[1], Robert B. Kohlhaas[1]

[1]Fraunhofer Heinrich Hertz Institute

EuMC50-4
Sub-THz PA EVM measurements with Ultra-Wideband Test Signals

Jean-Pierre Teyssier[1], Vincent Gillet[1], Johan Ericsson[1], Gerhard Schoenthal[2]

[1]Keysight Technologies, [2]Virginia Diodes Inc., USA

EuMC50-5
Ultra-Wide Band THz Directional Coupler

Nikolaos Xenidis[1], Joachim Oberhammer[1], Dmitri V. Lioubtchenko[1]

[1]KTH Royal Institute of Technology, Stockholm, Sweden

EuMC50-6
Filtering Power Divider with Reflectionless Response at All Ports Based on Cascaded Building Blocks

Minahil Shirazi[1], Adnan Nadeem[1], Symeon Nikolaou[1], Kexin Li[2], Dimitra Psychogiou[2], Photos Vryonides[1]

[1]Frederick Research Center (FRC)-Frederick University, 1036 Nicosia, [2]University College Cork & Tyndall National Institute

EuMC50-7
8-Port Network Analysis Up to 110 GHz Using Multi-VNA Port Extension

Jens Löffler[1], Manuel Koch[1], Sascha Breun[1], Robert Weigel[1], Norman Franchi[1]

[1]Friedrich-Alexander Universität Erlangen-Nürnberg

EuMC50-8
Statistical Analysis on Interlaboratory Comparison Case Study of Dielectric Measurements

Yuhui Luo[1], Xiaobang Shang[1], Liam Ausden[1], Nick Ridler[1], Djamel Allal[2], Marcin Wojciechowski[3]

[1]National Physical Laboratory (NPL), [2]Laboratoire National de Métrologie et d'Essais (LNE), France, [3]Wojskowa Akademia Techniczna im Jaroslawa Dabrowskiego (WAT), Poland Central Office of Measures (GUM), Poland

EuMC50-9
Passive Intermodulation Products Radiated from an Antenna Reflector: Theory and Experiments

Jacques Sombrin[1], Isabelle Albert[2], Nicolas Fil[2], Christian Feat[3], Jérôme Sinigaglia[3]

[1]TESA Laboratory, [2]Centre National d'Études Spatiales (CNES), [3]THALES ALENIA SPACE (FRANCE)

EuMC50-10
Compensation of Fano Resonances in Microwave Resonators

Felix Bachbauer[1], Gerald Gold[1]

[1]Friedrich-Alexander Universität Erlangen-Nürnberg

EuMC50-11
Design of Multimode Horn Feed for Parallel Plate Waveguide-Based Offset Dual-Reflector Antenna

Thi-Kim-Ngan Nguyen[1], Artem R. Vilenskiy[2], David González Ovejero[1], Ronan Sauleau[1], Marianna Ivashina[3]

[1]Univ Rennes, CNRS, IETR- UMR 6164, [2]XPANCEO, [3]Antenna Systems Group, Dept. of Electrical Engineering, Chalmers University of Technology

EuMC50-12
Investigation of the Radiation Characteristics of Circular Open-End Polymer Microwave Fibers

Stefan Wögerbauer[1], Helmut Paulitsch[1], Siegfried Krainer[2], Michael Ernst Gadringer[3]

[1]Institute of Microwave and Photonic Engineering, Graz University of Technology, Austria, [2]Infineon Technologies Austria AG, Villach, Austria, [3]Christian Doppler Laboratory for Technology Guided Electronic Component Design and Characterization, Graz, Austria

These posters will have 1-minute pitches in EuMC-PP2 on Thursday morning before this session!

EuMC50-13
Analysis of Bessel and Bessel-Gauss beams in the transition region from near to far field

Stella Ventucci[1], Edoardo Negri[2], Walter Fuscaldo[2], Paolo Burghignoli[1], Alessandro Galli[1]
[1]Sapienza University of Rome, Italy , [2]Consiglio Nazionale delle Ricerche (CNR)

EuMC50-14
Generation of Admissible Grid Topologies for Coupled-Resonator Filters

Stefano Tamiazzo[1], Giuseppe Macchiarella[2], Matteo Oldoni[2]
[1]Andrew , [2]Politecnico di Milano

EuMC50-15
A Millimeter-Wave Switchable SIW Diplexer with Controllable Bandwidths and Transmission Zeros

Pei-Ling Chi[1], Yu-Hsien Chang[1], Tao Yang[2]
[1]National Yang Ming Chiao Tung University, [2]University of Electronic Science & Technology of China

EuMC50-16
A miniaturized integrated passive device on-chip bandpass filter with high selectivity for satellite communication system

Haoran Zhu[1], Shunchun Yang[2], Yufa Sun[1]
[1]Anhui University, [2]Beihang University

EuMC50-17
Low Cost FR4 Substrate Based Credit Card Sized Chipless RFID Tags and Switching Probe Reader

Fuminori Sakai[1], Yoshimasa Amano[1], Mitsuo Makimoto[2], Koji Wada[2]
[1]Sakura Tech corporation, [2]The University of Electro-Communications

EuMC50-18
Patch Antenna for Microwave Ablation: Numerical Design and Ex Vivo Experimental Validation

Leonard Leiner[1], Maarten Paulides[2], Kemal Sumser[2], Christopher L. Brace[1]
[1]University of Wisconsin - Madison, [2]Eindhoven Univeristy of Technology

EuMC50-19
Series Selection of LC Components in Microwave Rectifier Using Multi-Stage Matching for Wideband Operation

Takehiro Yamaki[1], Kodai Nakao[1], Satoshi Yoshida[1]
[1]Ryukoku University

EuMC50-20
Optimization-Driven Design of a High-Efficiency Pixelated Rectenna for Low-Power Wireless Power Transfer

Rasool Keshavarz[1], Ali Raza[1], Amanath Ullah[1], Akifumi Nagatani[2], Negin Shariati[1]
[1]University of Technology Sydney, [2]NTT DOCOMO, INC, Japan

THURSDAY 10:50 – 12:30

ROOM	Progress	Mission 1
	EuRAD08 Phased Array Radars Chair: Carmine Clemente[1] Co-Chair: Alexander Yarovoy[2] [1]University of Strathclyde, [2]Delft University of Technology	**EuRAD09** Radar-Based Target Detection and Recognition Chair: Marlene Harter[1] Co-Chair: Mohammed Jahangir[2] [1]Offenburg University of Applied Sciences, [2]University of Birmingham, UK
10:50 – 11:10	**EuRAD08-1** PHARA: A Hybrid-Scanning, Full-Polarimetric Phased-Array Radar for Weather Observations Rob van der Meer[1] **INDUSTRIAL KEYNOTE** [1]ROBIN RADAR SYSTEMS	**EuRAD09-1** Vortex Radar: Status and Perspectives Rossella Gaffoglio[1] **INDUSTRIAL KEYNOTE** [1]Fondazione Links
11:10 – 11:30	**EuRAD08-2** Development and Realization of an AESA Receiver for the PAMIR-Ka Radar Demonstrator Gabriel El-Arnauti[1], Olaf Saalmann[1] [1]Fraunhofer FHR	**EuRAD09-2** Radar Based Torso Tracking in Radiation Therapy André Froehly[1], Sandra Nowok[1], Alex Shoykhetbrod[1], Ralf Brauns[1], Patrick Wallrath[1] **EuRAD CP nominee** [1]Fraunhofer Institute for High Frequency Physics and Radar Techniques (FHR)
11:30 – 11:50	**EuRAD08-3** Signals Analysis and Synthesis of the Continuous Wave Frequency Diversity Antenna Array with an Arbitrary Aperture Anton Shevchenko[1], Leonid Kornienko[1], Stanislav Piskunov[1] [1]Kharkiv National Air Force University, Ukraine	**EuRAD09-3** Ensuring AI/ML Safety in Automotive Radar DoA Estimation Ionela-Cristina Voicu[1], Iani Almajan[1], Jihwan Youn[1], Jun Li[1], Satish Ravindran[1], Ryan Wu[1] [1]NXP Semiconductors
11:50 – 12:10	**EuRAD08-4** Interferometric phase measurement performance of 3D phased array surveillance radars Neuton Severo de Farias Neto Farias[1], Leandro Pralon[1], Márcio de Menezes[2] [1]Brazilian Army Technological Center, [2]No affiliation	**EuRAD09-4** Efficient Ensemble Pruning for Robust Adversarial Defense in SAR-ATR Amir Hosein Oveis[1], Marco Martorella[2], Alessandro Cantelli-Forti[1], Elisa Giusti[1] [1]CNIT (National Inter-University Consortium for Telecommunications), [2]The University of Birmingham
12:10 – 12:30	**EuRAD08-5** Null Steering Using 4×4 Beamforming Network with Hybrid Couplers and Controllable Phase Shifters Javad Jafaryahya[1], Rasool Keshavarz[1], Negin Shariati[1] [1]University of Technology Sydney	**EuRAD09-5** Differentiation between drones and birds using kinematic analysis Bing Hong Teh[1], Samuel Dubos[1], Jean-Marc Divanon[2] [1]Thales Solutions Asia Pte Ltd, [2]THALES

THURSDAY 13:50 – 15:30

ROOM	Quest	Expedition	Auditorium
	EuMC51 Multiphysics Simulation Techniques Chair: Alessandro Galli[1] Co-Chair: Andrea Neto[2] [1]Sapienza University of Rome, [2]TU Delft	**EuMC52** MTT-S ISTP Panel Session: Microwaves for a Sustainable Future - Innovations and Challenges in Technology, Energy, and Resources Chair: Jasmin Grosinger[1] Co-Chair: Peter Siegel[2] [1]Graz University of Technology, [2]NASA-JPL/Caltech	**EuMC53** EuMC/EurAAP Special Session: Beamforming Networks for Active Array Antennas Chair: Bart Smolders[1] Co-Chair: Maria Carolina Viganó[2] [1]Eindhoven University of Technology, [2]Viasat
13:50 – 14:10	**EuMC51-1** Systematic Optimization Methodology for mm-Wave Power Amplifiers Armen Harutyunyan[1], Padmanava Sen[1] [1]Barkhausen Institut gGmbH	**13:50 – 15:30** **MTT-S ISTP Panel Session: Microwaves for a Sustainable Future - Innovations and Challenges in Technology, Energy, and Resources** The Panel will explore the role of microwave science and technology in advancing sustainability in diverse areas of impact, including energy capture and harvesting, power distribution, sustainable agriculture, chemical reaction, and industrial processes. Panelists will emphasize the critical role that microwave technologies play in addressing these complex issues. The session will serve as a platform to engage the broader community, share insights, and inspire collaboration on the road to a more sustainable and energy-efficient future. Moderator: • Malgorzata Celuch, QWED, Poland Panelists: • Helmuth Morath, TU Dresden, Germany • Jean-Pierre Raskin, UC Louvain, Belgium • Jasmin Grosinger, Graz University of Technology, Austria • Sulekha Chattopadhyay, California Air Resources Board, USA • Debabani Choudhury, SeraTech, USA Contacts: • Ke Wu, Polytechnique Montréal, Canada • J.-C. Chiao, Southern Methodist University, USA	**EuMC53-1** Mutual coupling between antennas: a simple modal representation Christophe Craeye[1], Jean Cavillot[1] [1]Université catholique de Louvain
14:10 – 14:30	**EuMC51-2** Radiation Characteristics of Layered Cylindrical Luneburg Lens Antenna Equipped with Conformal Graphene Strip: Effect of Graphene Parameters Iryna Mikhailikova[1], Sergii Dukhopelnykov[2] [1]Laboratory of Micro and Nano Optics, Institute of Radio-Physics and Electronics NASU , [2]Institute of Radio-Physics and Electronics of the NASU		**EuMC53-2** All digital beamforming concepts for RADAR applications Gilberto Rossi[1], Juergen Rauscher[1] [1]Hensoldt Sensors GmbH
14:30 – 14:50	**EuMC51-3** Optimization of Hypersonic Re-Entry Vehicle Aerodynamics for Communication Blackout Mitigation Gian Marco Zampa[1], Tony Di Fabbio[1], Eric Segalerba[1], Joel Enrique Guerrero Rivas[1] [1]Leonardo SpA		**EuMC53-3** Reconfigurable Photonics Integrated Multibeam Beamformer Networks Ronis Maximidis[1], Roel Botter[2], Paul van Dijk[2], Chris Roeloffzen[2] [1]Stellar Phronesis Technology, [2]LIONIX International BV., Enschede, Netherlands
14:50 – 15:10	**EuMC51-4** Physics Based Modeling of Multi-Finger GaN-HEMTs: Device Width Optimization Soheil Nouri[1], Bilal Pirzada[1], Amirreza Ghadimi-Avval[1], Samir El-Ghazaly[1] [1]University of Arkansas		**EuMC53-4** Integrated microwave photonic functionalities on a hybrid integrated InP-Si3N4 PIC platform: Photonic components for beamforming array antennas Chris Roeloffzen[1], Paul van Dijk[1], Ilka Visscher[1], Marcel Hoekman[1], Roelof Bernardus Timens[1], Charoula Mitsolidou[1], Ahmad Mohammad[1], Robert Grootjans[1], Roel Botter[1], Carlos Ruiz[1], Sadoon Al-Obaidi[1] [1]LioniX International
15:10 – 15:30	**EuMC51-5** Graphene Strip Grating on Substrate as Conventional and Inverse Polarizer in Terahertz Range Fedir Yevtushenko[1] [1]Institute of Radio-Physics and Electronics NASU		**EuMC53-5** Over-the-Air Testing of Front-End Losses in Active Array Antennas A.J. van den Biggelaar[1], Marc Vanden Bossche[1] [1]ANTENNEX B.V.

THURSDAY 13:50 – 15:30

ROOM	Mission 2	Glow	Progress	Mission 1
	EuMC54 Periodic Structures and Metamaterials Chair: Antoine Calleau[1] Co-Chair: Erio Gandini[2] [1]Swissto12 SA, [2]ESA ESTEC	**EuMC55** Wireless Communications and Sensing Chair: Padmanava Sen[1] Co-Chair: Fabian Lurz[2] [1]Barkhausen-Institut gGmbH, [2]Otto-von-Guericke University Magdeburg	**EuRAD10** Focussed Session: Phased Array Radars for Meteorological Applications Chair: Alexander Yarovoy[1] Co-Chair: Dusan Zrnic[2] [1]Delft University of Technology, [2]University of Oklahoma	**EuRAD11** Synthetic Aperture Radar Imaging Techniques Chair: Maria A. Gonzalez Huici[1] Co-Chair: Jacco de Wit[2] [1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR), [2]TNO Defense, Safety and Security
13:50 – 14:10	**EuMC54-1** Design of a Topological Waveguide Using Two Types of Rhombic Unit Cell Structures with Exchanged Microstrip-Line Arrangements Tsutomu Nagayama[1] [1]Kagoshima University	**EuMC55-1** Industrial Applications of THz Technology: A Fraunhofer View Dirk Heberling[1], Dirk Nüßler[2], Christoph Reising[2] **INDUSTRIAL KEYNOTE** [1]RWTH Aachen University, Germany, [2]Fraunhofer FHR	**EuRAD10-1** Horus-A Fully Digital Phased Array Radar for Weather Observations Dusan Zrnic[1], David Schvartzman[2], Robert Palmer[3] [1]University of Oklahoma , [2]University of Oklahoma , Advanced radar Research center, [3]Advanced Radar Research Center	**EuRAD11-1** Adaptive Sampling for Efficient Synthetic Aperture Radar Imaging Marius Brinkmann[1], Matthias M. Saurer[2], Gerhard F. Hamberger[1], Thomas F. Eibert[2] [1]Rohde & Schwarz GmbH & Co. KG, [2]Technical University of Munich
14:10 – 14:30	**EuMC54-2** A Two-Dimensional Active Magnetic Metamaterial Cell Hongtao Zhong[1], Shian Su[1], David S. Ricketts[1] [1]North Carolina State University	**EuMC55-2** Point-to-Multipoint Wireless Communication at 100 GHz with a Photonic Switched-Beam Transmitter Simon Nellen[1], Garrit Schwanke[1], Sara Vega[2], Oliver Stiewe[1], Sebastian Lauck[1], Milan Deumer[1], Robert Elschner[1], Colja Schubert[1], Ronald Freund[1], Maria C. Santos[2], Martin Schell[1], Robert B. Kohlhaas[1] [1]Fraunhofer Heinrich Hertz Institute, [2]Universitat Politecica de Catalunya (UPC)	**EuRAD10-2** Assessment of Dual-Polarization Measurements by Phased Array Weather Radar for Airborne Applications Chandra V Chandrasekar[1], Eiichi Yoshikawa[1] [1]Colorado State University	**EuRAD11-2** C-band Receive Module Unit for the Harmony SAR Massimiliano Imparato[1], Mauro Frediani[1], Alessandro Barigelli[1], Fabiano Boccolini[1], Danilo Fortini[1], David Cuadrado-Calle[2], Ernesto Imbembo[2], Daniele Petrolati[2], Florence Heliere[2] [1]Thales Alenia Space Italia, [2]European Space Agency (ESA)
14:30 – 14:50	**EuMC54-3** Active Metamaterial Mini-Array Using Inter-cell Stability Compensation Shian Su[1], Hongtao Zhong[1], David Ricketts[1] [1]North Carolina State University, USA	**EuMC55-3** A Distributed Radar Architecture above 100 GHz using Lens Arrays for Sensing Applications Ashwita Nair[1], Giorgio Carluccio[2], Waqas Syed[2], Harish Nandagopal[2], Maria Alonso del Pino[1], Daniele Cavallo[1], Kostas Doris[2], Nuria LLombart Juan[1] [1]Delft University of Technology, [2]NXP Semiconductors Eindhoven	**EuRAD10-3** Cross-Polarization Suppression in Phased-Array Radars for Weather Sensing Gabriele Federico[1], Martijn de Kok[1], Ramon Hameleers[1], Kasper Eijck[1], Bart Smolders[1] [1]Eindhoven University of Technology - TU/e	**EuRAD11-3** Wavelet-Based Analysis for SAR Polarimetry Millimeter-Wave Imaging at W-Band Shahrokh Hamidi[1] [1]University of Waterloo
14:50 – 15:10	**EuMC54-4** Single-Layer, Dual-Passband, High-Reject, Beam-Pointing FSS for SatCom Applications Ashifa Mohammed Musthafa[1], Elmine Meyer[2], Ulf Johannsen[2], Diego Caratelli[1] [1]The Antenna Company, [2]Eindhoven University of Technology, Electrical Engineering, Electromagnetics group	**EuMC55-4** Performance and Potentials of 6G-Based Joint Communication and Sensing for Low-Level Airspace Monitoring Nunzio Sciammetta[1], Shikhar Chandra[2], Markus Kluegel[1], Vlad C. Andrei[3], Xinyang Li[3], Holger Boche[3], Dominic Schupke[1] [1]Airbus Defence and Space GmbH, [2]Technical University of Munich - Airbus Defence and Space GmbH, [3]Technical University of Munich	**EuRAD10-4** Parametric Estimation of Elevation-Doppler Profiles with Phased Array Radar for Precipitation Tworit Dash[1], Oleg Krasnov[1], Hans Driessen[1], Alexander Yarovoy[1] [1]TU Delft	**EuRAD11-4** Calibration of Radar Systems with SAR Image-Based Quality Optimization Dominik Rhiem[1], André Froehly[1], Patrick Wallrath[1] [1]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques)
15:10 – 15:30	**EuMC54-5** Analysis of Forward and Backward Modes in One-Dimensional Periodic Bounded Structures Oskar Zetterstrom[1], Raúl Rodríguez Berral[2], Francisco Mesa[2], Oscar Quevedo-Teruel[1] [1]KTH Royal Institute of Technology, [2]Universidad de Sevilla	**EuMC55-5** Harmonic Response Characterization of Mobile Devices for Application in Avalanche Rescue Moritz Schabinger[1], Thomas Schaechtle[1], Georg K. J. Fischer[2], Fabian Höflinger[1], Stefan J. Rupitsch[1] [1]University of Freiburg, [2]Fraunhofer EMI	**EuRAD10-5** On the Advantage and Disadvantage of the Phased Array Weather Radar at X Band Tomoo Ushio[1], Yuuki Wada[1], Eiichi Yoshikawa[2], Kikuchi Hiroshi[3] [1]The University of Osaka, [2]Colorado State University, [3]The University of Electro-Communications, Chofu, Tokyo, Japan	**EuRAD11-5** Influence of Turbulences and Cross-Wind on the Signal Quality in Circular Synthetic Aperture Radar Michael Pircher[1], Marc Jäger[1], Ulf Johannsen[2] **EuRAD YEP nominee** [1]Microwaves and Radar Institute, German Aerospace Center (DLR), [2]Eindhoven University of Technology, Electrical Engineering, Electromagnetics group

THURSDAY 13:50 – 15:30

These posters will have 1-minute pitches in EuRAD-PP on Thursday morning!

Hall 7

EuRAD12
EuRAD Poster

Chair: Ronny Harmanny[1]

Co-Chair: Mark S. Oude Alink[2]

[1]Thales Nederland B.V., [2]University of Twente

EuRAD12-1
Data Fusion of Distributed Sensing Suite for Multi-Perspective Radar Imaging

Anum Pirkani[1], Dillon Kumar[2], Natalie Reeves[3], Mikhail Cherniakov[2], Marina Gashinova[2]

[1]The University of Birmingham, [2]University of Birmingham, [3]University of Birmingham, UK

EuRAD12-2
Ku-band 1D-MIMO FMCW Radar System for ISAR-Based 3D Near Field Imaging

Sangwook Nam[1], Dong-Woo Kim[2], Taewoo Yu[2]

[1]Seoul National University, [2]Samsung Electronics

EuRAD12-4
A Spatial Filtering Zoom-in Radar Technique Combining Analog Beamforming and MIMO

Zitao Zhu[1], Marcello Ganzerli[2], Massimo Ciacci[2], Qilong Liu[2], Shagun Bajoria[2], Pieter Harpe[3], Lucien Breems[2], Georgi Radulov[3]

[1]NXP / Eindhoven University of Technology (TU/e), [2]nxp, [3]TUe

EuRAD12-5
Design and Modeling CFAR Algorithms Detecting Target on a Curvilinear Trajectory

Felix Yanovsky[1], Igor Prokopenko[1], Alexander Pitertsev[1], Huinam Rhee[2]

[1]State University Kyiv Aviation Institute, Kyiv, Ukraine, [2]Sunchon National University, Suncheon, Republic of Korea

EuRAD12-6
Complex-Valued and Quantized Neural Networks for In-Car Occupancy Detection Using IR-UWB Radar

Lukas Klantschnig[1], Harald Witschnig[1], Franz Pernkopf[2]

[1]Infineon Technologies Austria AG, [2]Signal Processing and Speech Communication Laboratory, Graz University of Technology, Austria

EuRAD12-7
Event-based radar perception processing

Sen Yuan[1], Stefano Chiavazza[2], Federico Corradi[2], Francesco Fioranelli[1]

[1]TUDELFT, [2]Eindhoven University of Technology (TU/e)

EuRAD12-8
False Alarm Mitigation in High-Density Environments to enable accurate Low-Speed Target Identification

Samuel Dubos[1], Bing Hong Teh[1], Xin Guo[1], Jean-Marc Divanon[1]

[1]Thales Solutions Asia Pte Ltd

EuRAD12-9
Design of Multiband Frequency-Modulated GPS Jamming Waveform Using a Low-Cost Single-Channel Software-Defined Radio

Shashank S[1], Vinay B Narayane[2], Paresh Saxena[1], Ashutosh Baheti[2]

[1]BITS Pilani Hyderabad Campus, [2]Paras Anti-Drone Technologies Pvt. Ltd

EuRAD12-10
Privacy-Preserving Seat Detection with FSS-Modulated Backscatter and mmWave Radar

Farid Morabet[1], Marc Lázaro Martí[1], Ramon Villarino[1], David Girbau Sala[1], Antonio Lazaro[1]

[1]Universitat Rovira I Virgili (URV)

EuRAD12-11
Novel Test Platform for Automated HWSW Integration Testing of Automotive 77GHz Radar Systems

Aybars Kizilay[1], Daniel Kuerschner[1], Rabishankar Das[1], Alois Ascher[2], Mihai Aldea[2]

[1]NXP Semiconductor GmbH, [2]Rohde Schwarz GmbH & Co. KG

EuRAD12-12
Utilizing Diffuse GNSS Signal Reflections from the Sea Surface for Sea Wave Monitoring

Yiyang Luo[1], Vladyslav Lutsenko[1], Irina Lutsenko[1], Alexander Sobolyak[1], Vitalii Trifanov[1], Nguyen Xuan Anh[2]

[1]O.Ya. Usikov Institute for Radiophysics and Electronics of the National Academy of Sciences of Ukraine, [2]Institute of Geophysics Graduate University of Science and Technology

EuRAD12-13
Sea Clutter Suppression Driven by Convolutional Neural Network in ArcSAR

Luis Pereira[1]

[1]Brazilian Army Technological Center

EuRAD12-14
Retrieval of weather parameters in rain for a fast-scanning 4D X-band surveillance radar

Sultan Abdul Kader Syed Mohamed[1], Wietse Bouwmeester[1], Tim Kuipers[1], Jurjen Westra[1], Silvester Heijnen[1]

[1]Robin Radar Systems

EuRAD12-15
Characterisation of a Radar-Based Structural Health Monitoring System for Wind Turbine Rotorblades

Tobias Huemmer[1], Thomas Kurin[1], Moritz Maelzer[2], Sebastian Beck[2], Jochen Moll[2], Fabian Lurz[1]

[1]Otto von Guericke University Magdeburg, [2]University of Siegen

EuRAD12-16
Polarimetric Coupling in Phased Array Weather Radars: Requirements and Mitigation Techniques

Jonas Heylen[1], Guilherme Theis[2], Rob van der Meer[2], Yanki Aslan[3], Alexander Yarovoy[3]

[1]TU Delft, MS3 / Robin Radar Systems, [2]Robin Radar Systems, [3]TU Delft, MS3

THURSDAY 16:10 – 17:50

ROOM **Polar**

EuMW03
EuMW/EuMC Closing and Awards Ceremony

Chair: Ioan E. Lager[1]

Co-Chair: Ann Franchois[2]

[1]Delft University of Technology, [2]Ghent University

16:10 – 16:20 Session Welcome

Ioan E. Lager[1], Ann Franchois[2]

[1]Delft University of Technology, [2]Ghent University

16:20 – 17:05 Applications of Exceptional Degeneracy Points in Nonlinear Circuits, Oscillators and Arrays

Filippo Capolino[1]

[1]University of California

We present the theory and illustrate possible applications of an important class of "exceptional" degeneracies that occur when two or more eigenstates of a system fully coalesce. Such exceptional degeneracies can be designed in circuits, resonators, and multimode waveguides. These exceptional point degeneracies (EPDs) involve also the degeneracy of polarization states and can be designed in a surprisingly large number of systems, like fully passive systems or in systems that include gain elements. We provide various experimental verifications of the occurrence of EPDs in circuit resonators and waveguides and we discuss applications in antenna arrays, oscillators, delay lines, highly sensitive sensors, second harmonic generation, etc. Particular attention is devoted to the study of the saturated regime in systems with nonlinear gain.

17:05 – 17:20 Awards Ceremony

Andrea Neto[1], Ioan E. Lager[1]

[1]Delft University of Technology

EuMW 2025 Awards Chair
EuMC Prize
EuMC Young Engineer Prizes
EuMC Best Poster Award

17:20 – 17:35 Closing Remarks

Mark Bentum[1]

[1]Eindhoven University of Technology (TU/e)

Mark Bentum
EuMW 2025 General Chair

Invitation to EuMW 2026
Stephen Harman
EuMW 2026 General Chair

THURSDAY 16:10 – 17:50

ROOM	Progress	Mission 1	Mission 2
	EuRAD13 Focussed Session: Novel Processing and Applications of SAR Chair: Debora Pastina[1] Co-Chair: Carmine Clemente[2] [1]University of Rome La Sapienza, [2]University of Strathclyde	**EuRAD14** Distributed and MIMO Radar Systems Chair: Elisa Giusti[1] Co-Chair: Detmer A. Bosma[2] [1]CNIT, [2]TNO	**EuRAD15** Waveform Diversity in Radar Detection Chair: Fabiola Colone[1] Co-Chair: Lorenzo Cifola[2] [1]Sapienza University of Rome, [2]Thales NL
16:10 – 16:30	**EuRAD13-1** Micro-motion extraction from land and maritime targets with spaceborne SAR using sub-aperture phase analysis Carmine Clemente[1], Aleksanteri Vattulainen[1], Finlay Rollo[1], Alessandro Lotti[2], Daniele Zonta[2], Pietro Milillo[3] [1]University of Strathclyde, [2]University of Trento, [3]University of Houston	**EuRAD14-1** EISNET: A European perspective on Radar Network for Air Defence Mayazzurra Ruggiano[1] **INDUSTRIAL KEYNOTE** [1]Thales Nederland B.V.	**EuRAD15-1** Recognition of Gait Patterns in Both Legs Using a Compact Doppler Radar Sensor Inoh Choi[1], Min Kim[2], Sangbin Cha[1], Jieun Lee[1], Sanghong Park[1], Youngseok Jin[3], Ji-Eun Bae[3], Eugin Hyun[3] [1]PUKYONG NATIONAL UNIVERSITY, [2]Korea Institute of Ocean Science & Technology, [3]Daegu Gyeongbuk Institute of Science and Technology
16:30 – 16:50	**EuRAD13-2** Advanced SAR Processing for 3D imaging Stefano Tebaldini[1], Marco Manzoni[1], Naomi Petrushevsky[1], Francesco Banda[2], Francesco Salvaterra[1], Luca Mantuano[1] [1]Politecnico di Milano, [2]Aresys	**EuRAD14-2** Design of Sparse MIMO Radar Antenna Arrays Using DPS with Integrated CRB Evaluation Jiaqi Li[1], Arie G.C. Koppelaar[1], Anusha Ravish Suvarna[1], Francesco Fioranelli[2] [1]NXP Semiconductors Eindhoven, [2]TU Delft, MS3	**EuRAD15-2** Comparison of different QPSK Modulation Methods for Radar Backscatter Communication Christoph Degen[1] [1]Hochschule Niederrhein
16:50 – 17:10	**EuRAD13-3** Ambiguous Staggered SAR: Rationale and Advanced Processing Techniques for Clutter Suppression Nertjana Ustalli[1], Michelangelo Villano[1] [1]Microwaves and Radar Institute, German Aerospace Center (DLR)	**EuRAD14-3** Investigation of CW and LFM waveforms for Bi- and Multistatic Radar Synchronisation Lucas L. Lamberti[1], Stefan V. Baumgartner[1], Gerhard Krieger[1] [1]German Aerospace Center (DLR), Oberpfaffenhofen, Germany.	**EuRAD15-3** Numerical Modeling of Radar-based Vital Sign Detection in Debris Sites for Sparse Frequency Excitations Dominik Martin Spale[1], Gunnar Gidion[1], Thomas Schaechtle[1], Stefan J. Rupitsch[1] [1]University of Freiburg
17:10 – 17:30	**EuRAD13-4** Exploitation of very long dwell spaceborne SAR data for enhanced maritime situational awareness via ISAR approaches Ilaria Nasso[1], Fabrizio Santi[1], Debora Pastina[1] [1]Sapienza University of Rome, Italy	**EuRAD14-4** Detection of Tilt in Cooperative Radar Systems Utilizing Overlapping Bistatic Virtual Channels Tobias Schmid[1], Daniel Schindler[1], Cornelius Kaiser[1] [1]Robert Bosch GmbH, Germany	**EuRAD15-4** Performance Improvement of OFDM-Based Forward Scatter Radar using Golay Codes Abdollah Ajorloo[1], Andrea Quirini[1], Fabiola Colone[1], Pierfrancesco Lombardo[1] [1]Sapienza University of Rome
17:30 – 17:50	**EuRAD13-5** Synthetic Aperture Radar for Oil Spill Detection and Characterization: Special Focus on Arctic Routes Ajeet Kumar[1] [1]CNIT (National Inter-University Consortium for Telecommunications)	**EuRAD14-5** Object Contour Estimation Using a Distributed FMCW Radar Network with Spectral Fusion Patrik Hertle[1], Jürgen Hasch[1], Daniel Schindler[1], Oliver Blume[1], Christian Waldschmidt[2] [1]Robert Bosch GmbH, [2]Universität Ulm	**EuRAD15-5** Enhancing polarization diversity in RIS-aided Integrated Communication and Sensing Networks Abdelrahman Elgamal[1], Wasim Alshrafi[2], Thomas Dallmann[3], Peter Knott[2] [1]RWTH Aachen University, Germany, [2]Fraunhofer FHR (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR), [3]Technische Universitat Ilmenau

FRIDAY 08:30 – 10:10

ROOM	Progress	Mission 1	Mission 2
	EuRAD16 Focussed Session: Machine Learning in mm-Wave Radars Chair: Sandeep Rao[1] Co-Chair: Shunqiao Sun[2] [1]Texas Instruments, [2]The University of Alabama, Tuscaloosa, AL, USA	**EuRAD17** Signal Processing for Radar Chair: Mayazzurra Ruggiano[1] Co-Chair: Faruk Uysal[2] [1]Thales Nederland B.V., [2]TNO	**EuRAD18** Passive Radar Systems and Array Techniques Chair: Pierfrancesco Lombardo[1] Co-Chair: Michael Antoniou[2] [1]Sapienza University of Rome, [2]University of Birmingham
08:30 – 08:50	**EuRAD16-1** Deep Frequency Attention Networks for Single Snapshot Sparse Array Interpolation Ruxin Zheng[1], Shunqiao Sun[1], Hongshan Liu[1] [1]The University of Alabama, Tuscaloosa, AL, USA	**EuRAD17-1** Beta-Variational Autoencoder-Based Covariance Matrix Reconstruction for Direction-of-Arrival Estimation Gabriel Valenti[1], Moctar Mouhamadou[1], Cyril Decroze[1] [1]XLIM UMR 7252, Universite de Limoges/CNRS	**EuRAD18-1** Passive Space Domain Awareness using LOFAR and Signals of Opportunity of a Non-Cooperative Radar Detmer A. Bosma[1], Faruk Uysal[1], Cees Bassa[2], Michiel A. Brentjens[2] **EuRAD CP nominee** [1]TNO, [2]ASTRON Netherlands Institute for Radio Astronomy
08:50 – 09:10	**EuRAD16-2** Realistic Micro-Doppler Radar Simulation of Cyclists for Vulnerable Road User Classification Oliver Sura[1], Peter Mergenthaler[1], Christoph Kammel[2], Eva Dorschky[2], Marcel Hoffmann[2], Martin Vossiek[1] [1]Institute of Microwaves and Photonics (LHFT), Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), [2]fiveD GmbH	**EuRAD17-2** Low-Latency Spike-Based Range and Velocity Estimation of FMCW Radar Signals Stefano Chiavazza[1], Sen Yuan[2], Francesco Fioranelli[2], Federico Corradi[1] **EuRAD CP & YEP nominee** [1]TU Eindhoven, [2]TU Delft	**EuRAD18-2** Don't be Blinded: Multistatic Passive Radar Imaging Using Interfering Automotive FMCW Signals Lukas Rienessl[1], Michael Gerstmair[2], Christian Schmid[2], Andreas Stelzer[3], Reinhard Feger[1] **EuRAD YEP nominee** [1]Christian Doppler Laboratory for Distributed Microwave and Terahertz Systems for Sensors and Data Links, [2]Infineon Technologies Austria AG, [3] Institute for Communications Engineering and RF-Systems / Johannes Kepler University Linz
09:10 – 09:30	**EuRAD16-3** Handheld SAR with Learning-Based Ego-Motion Estimation Using a Compact mmWave Sensor Okyanus Oral[1], Ahmed Murtada[1], Thomas Feuillen[1], Bhavani Shankar Mysore Rama Rao[1] [1]SnT - Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg	**EuRAD17-3** Ground-Penetrating Radar-Based Detection of Railroad Switches and Direction Classification using Near-Surface Features Maximilian Noll[1], Sören Kohnert[1], Pau Caldero[1] [1]Siemens Mobility GmbH	**EuRAD18-3** Speckle Reduction in Passive SAR Using Multilook Processing Based on DVB-T Frequency Bands Joe Bryan[1], Ali Bekar[1], Christopher Gilliam[1], Michael Antoniou[1] [1]University of Birmingham
09:30 – 09:50	**EuRAD16-4** Robust Radar Gesture Recognition on the Edge Akshay Kumar Chandrasekaran[1], Sandeep Rao[1], Goutham C Krishnan[1], Sripradha R[1] [1]Texas Instruments (India) Pvt. Ltd.	**EuRAD17-4** Multi-Object Identification and High-Accuracy Range Estimation Using Doppler Tags Theresa Antes[1], Thomas Zwick[1], Benjamin Nuss[1] [1]Karlsruhe Institute of Technology (KIT)	**EuRAD18-4** Detection of Vital Signs Using Noncoherent Receivers Prabhav Manchanda[1], Marcus Knaack[2], Juhua Liao[3], Cristina Andrei[4], Matthias Rudolph[4] [1]Brandenburg Technical University Cottbus-Senftenberg, [2]Fraunhofer Institute of Photonic Microsystems, [3]University College London, UK, [4]Brandenburg Technical University Cottbus, Cottbus
09:50 – 10:10	**EuRAD16-5** Comparison of Real-Time RF Human Skeleton Estimation using Kinematic Cycle Consistency Sultanus Salehin[1], Sean Kearney[1], Sevgi Zubeyde Gurbuz[1] [1]North Carolina State University	**EuRAD17-5** Robust SAR Edge Detection Ahmed Hashem[1], Daniel Louback S. Lubanco[1], Reinhard Feger[1], Markus Pichler-Scheder[2], Thomas Schlechter[3], Andreas Stelzer[1] [1] Institute for Communications Engineering and RF-Systems / Johannes Kepler University Linz, [2]Linz Center Of Mechatronics Gmbh, [3]University of Applied Sciences Upper Austria, Austria	**EuRAD18-5** Radar System Combining Frequency Diverse Array and Time-Modulated Array Geon U Kim[1], Sang-Hwa Yi[2], Jeong Phill Kim[1] [1]Chung-Ang University, Seoul, [2]Korea Electrotechnology Research Institute

FRIDAY 10:50 – 12:30

ROOM **Progress**

EuRAD19
EuRAD Closing

Chair: Laura Anitori[1]

Co-Chair: Kostas Doris[2]

[1]CNIT RASS, [2]NXP Semiconductors

10:50 – 11:00 Session Welcome

Laura Anitori[1]

[1]CNIT RASS

11:00 – 11:30 The DARPA Approach to Radar Innovation

Frank Robey[1]

[1]MIT Lincoln Laboratory

11:30 – 12:00 Technology developments and R&D activities at the European Space Agency for future spaceborne radars and RF instruments

Salvatore D'Addio[1]

[1]ESA

12:00 – 12:20 Awards Ceremony

Laura Anitory[1]

[1]CNIT RASS

12:20 – 12:30 Closing Remarks and Invitation to EuRAD 2026

Laura Anitori[1]

[1]CNIT RASS

Welcome from Workshop/Short Course Chairs

We are delighted to present a rich and dynamic program that bridges academia and industry, offering a unique platform for knowledge exchange and collaboration. This year's lineup is closely aligned with the core technical themes of the three main conferences – EuMC, EuMIC, and EuRAD – delivering in-depth insights and practical expertise across a broad range of domains.

For 2025, we are proud to offer 9 short courses and 23 workshops, spanning cutting-edge topics in integrated circuits, microwave engineering, and radar technologies. These sessions are designed to provide students, researchers, scientists, and engineers with both a comprehensive overview of RF and microwave systems and opportunities to delve into specialized and emerging areas of the field.

Our workshops are thoughtfully curated to address both current innovations and future challenges across the RF, microwave, and wireless landscape. The program offers focused sessions covering cutting-edge research and practical solutions, organized into six main thematic areas:

- 6G, Wireless Systems, and Integrated Communications
- Radar Systems and Sensing Technologies
- Circuits, Devices, and Semiconductor Technologies
- Photonics, Materials, and Emerging Technologies
- Measurements, Modeling, and Design Methodologies
- Sustainability, Power, and Thermal Management

We extend our heartfelt thanks to all organizers, presenters, and authors whose contributions make this program possible. Each session is endorsed by one or more of the EuMW conferences, ensuring relevance, technical rigor, and accessibility for all participants eager to expand their expertise and professional networks.

The workshops and short courses are scheduled throughout the week in alignment with the respective conferences:

- EuMIC: Sunday – Wednesday
- EuMC: Sunday – Thursday
- EuRAD: Monday – Friday

We encourage active participation and lively discussions during the sessions to foster meaningful learning and collaboration.

To enhance accessibility, all presentation materials will be available digitally during the conference. Please note that printed copies will not be provided. Registered participants will receive detailed instructions on how to access the materials closer to the event.

Once again, welcome to EuMW 2025 in Utrecht. We look forward to an engaging and inspiring week filled with innovation, insight, and collaboration– united under the banner of "Waves of Innovation."

ELMINE MEYER
Workshop, Short Course Chair
Eindhoven University of Technology,
The Netherlands

GABRIELE FEDERICO
Workshop, Short Course Chair
Eindhoven University of Technology,
The Netherlands

SUNDAY 08:30 – 17:50

SS01
EuMIC

Fundamentals of Microwave PA Design

Chair: Paolo Colantonio[1]
Co-Chair: Rocco Giofrè[1]
[1]University of Roma Tor Vergata

Room: Expedition

Semiconductor Power Amplifiers are key components in radio frequency and microwave transmitter systems. They have received a great deal of attention and development effort over the last decades and are still a hot topic in research area. This short course aims to provide a comprehensive overview of all aspects of fundamental semiconductor microwave power amplifier design. It is an introductory course, aimed at graduate engineers who have moved into the field of RF design, as well as to microwave designers who aim to deeply understand the power amplifier basic concepts. This short course features a range of presentations and will provide a comprehensive overview and basic understanding on recent important progress and novel state-of-the-art achievements in semiconductor power amplifiers. Very recent advances in semiconductor amplifiers and their applications will also be covered.

Starting from the fundamental concepts on semiconductor devices, the core of a power amplifier design, the theoretical foundations of a power amplifier design are discussed. It will include fundamental concepts and state-of-the-art results on actual designs of a range of semiconductor power amplifiers using existing foundries. The load pull technique is also addressed and focused on the designer perspective.

The presentations will also cover a variety of advanced topics, and will provide the attendees with a clear overview of the main streams of current and important research trends worldwide in this field, as the Doherty architecture and the more recent load modulation power amplifier design concepts.

The short course will also focus on the major challenges, such as stability (small and large signal) and how to address these in amplifier design. Finally, accounting for the linearity issue, a basic overview on linearization techniques and their adoption to properly mitigate the amplifier distortion effects will conclude the short course.

PROGRAMME

Semiconductor devices for PAs

Iltcho Angelov [1]
[1]Chalmers University

PA theoretical foundation

Paolo Colantonio[1]
[1]University of Roma Tor Vergata

Design and model-oriented Load Pull techniques: from basic CW to wideband and double pulsed Load Pull systems

Marco Pirola[1], Gustavo Avolio[2]
[1]Politecnico di Torino (Italy), [2]Maury Microwave, Eindhoven, The Netherlands

The Doherty Power Amplifier

Rocco Giofrè[1]
[1]University of Roma Tor Vergata

Balanced PAs: an old trick revival

Roberto Quaglia[1], Aleksander Bogusz[2]
[1]Cardiff Univeristy (UK), [2]Cardiff University

X-parameters high-power PAs modeling for System Level Analysis

Alessandro Cidronali[1]
[1]University of Florence (Italy)

Linear and Nonlinear Stability Analysis of Power Amplifiers

Giorgio Leuzzi[1]
[1]University of L'Aquila (Italy)

Linearization techniques overview

Pere L. Gilabert[1]
[1]Universitat Politècnica de Catalunya (UPC-Barcelona Tech.), Spain

A practical guide to first-time-right integrated microwave PA design

Gijs van der Bent[1]
[1]TNO Radar Technology Department

SUNDAY 08:30 – 12:30

Wearable Antenna Systems for Joint Body-Centric Communication, Powering and Sensing

SS02
EuMC

Chair: Hendrik Rogier[1]
[1]Ghent University - imec

Room: Juliana 3

In this short course, the challenges will be addressed that designers face when implementing wireless nodes for joint body-centric communication, powering and sensing. Therefore, insights will be provided into design procedures that enable the development of wearable antenna systems that exhibit sufficient robustness and yield adequate operational autonomy for the targeted applications in the sixth-generation wireless communication system. For this purpose, a comprehensive holistic, stochastic design framework for wearable systems will be outlined in detail. First, an overview of all the different system-level design requirements will be presented. This is followed by a discussion on the material and manufacturing selection process, together with the range of material characterization procedures available to designers to initiate the actual design process. A full-wave/circuit co-design and co-optimization strategy for pervasive integration of active electronics and energy harvesters will be proposed, which yields optimal wireless nodes. This procedure takes place after the preliminary design of the different building blocks, such as antenna system, transceiver and sensing electronics, energy harvesters and power managements system. Specific attention will be devoted to the extensive statistical analysis based on generalized polynomial chaos expansions, which ensures that designs are sufficiently resilient to variations due to fabrication tolerances and to uncertainty due to challenging deployment conditions. Moreover, validation procedures, in both the far and the near field, and both in anechoic and realistic operation conditions, will be covered in full detail. The course will end with an overview of some designs for a few representative applications.

PROGRAMME

Wearable antenna systems for joint body-centric communication, powering and sensing

Hendrik Rogier[1]
[1]Ghent University - imec

MONDAY 08:30 – 12:50

Architecture and Applications for Emerging SATCOM and NTN Communication Networks

SM01
EuMC

Chair: Dean White[1]
Co-Chair: Salvatore Finocchiaro[1]
[1]Qorvo

Room: Juliana 3

In less than a decade, low earth orbit (LEO) communications constellations have radically changed the space communications industry. Emerging Satellite Communication (SatCom) applications like broadband internet access in remote areas, enhanced emergency response systems, and vehicle and object tracking, amongst other applications leveraging low-earth orbit (LEO) constellations, are all driven by advancements in high-throughput satellites (HTS) and smaller, more affordable satellite technologies. In 2016, there were approximately 725 commercial communications satellites in all orbits. By the middle of 2024, SpaceX and OneWeb had launched more than ten times this number into LEO orbits, and that number is expected to grow over the next 5 years as Amazon (project Kuiper) and Telesat begin populating their constellations. These networks require new ecosystems that support a wide range of terminals with different cost, performance, and ruggedization requirements. LEO Satcom systems require near-instantaneous switching between two satellites to maintain connectivity, driving the terminal solution to electronically steered arrays. For ultra-low-cost, high-volume consumer market verticals, the economics have driven all aspects of terminal development internally to eliminate stacked margins on the components.

Next-generation SatCom networks will also enable 6G NTN. The key success factors are high throughput, capacity, low latency, and beamformed wireless links. In this Short Course, renowned speakers from the Industry will provide a top-to-bottom review of the ecosystem for LEO satellite communication networks: Market trends, Operator visions and objectives, technical challenges for terminals (ground, airborne), terminal integration, antenna design, semiconductor, and IC solutions.

PROGRAMME

The Economics of NTN and D2D

Joe Madden [1]
[1]Mobile Expert

Scenario Modeling and Simulation of Phased Array Systems for Satellite Communications

Giorgia Zucchelli[1]
[1]Mathworks

Flat Panel Satcom Terminals – Integration Challenges

Christoph Spranger [1]
[1]Vites

Enabling next generation SATCOM and NTN – a Test & Measurement perspective

Markus Loerner[1]
[1]Rohde & Schwarz

Phased Antenna Array Concept for Flexible Satellite Communications in Ka-band

Stefano Moscato[1]
[1]SIAE

Connecting the World Through Space: RF Innovations for Space Payloads and Terminals

Ryan Jennings[1]
[1]Qorvo

MONDAY 08:30 – 12:30

Radiative Wireless Power Transfer Basics and Implementation

SM02
EuMC

Chair: Huib Visser[1]
[1]Imec Netherlands / Eindhoven University of Technology

Room: Juliana 4

This short course consists of three basic parts, presented in four lectures. The first one covers the history and the basics of WPT with an emphasis on radiative WPT, i.e for applications to be powered on multiple meters distance from a source. The second part zooms in on the subsystems that make up a radiative WPT receiver. These subsystems are the antenna, the rectifier and impedance matching networks. Attention will be paid to designing these subsystems using free available software, like Octave, QucsStudio and OpenEMS as well as design formulas provided during the short course. In the last part, we will go through an assignment, using the mentioned freeware. At the end of the short course, the student should be capable of designing his/her own low-power radiative Wireless Power Transfer receiver.

PROGRAMME

Radiative Wireless Power Transfer Basics and Implementation, Part 1: History and Basics

Huib Visser[1]
[1]Imec Netherlands / Eindhoven University of Technology

Radiative Wireless Power Transfer Basics and Implementation, Part 2: Subsystems A

Huib Visser[1]
[1]Imec Netherlands / Eindhoven University of Technology

Radiative Wireless Power Transfer Basics and Implementation, Part 2: Subsystems B

Huib Visser[1]
[1]Imec Netherlands / Eindhoven University of Technology

Radiative Wireless Power Transfer Basics and Implementation, Part 3: Example

Huib Visser[1]
[1]Imec Netherlands / Eindhoven University of Technology

WEDNESDAY 08:30 – 17:50

Embedding Sustainability into RF Technologies

SW01
EuMC/
EuMIC

Chair: Bertrand Parvais [1]
Co-Chair: Cedric Rolin [2]
[1]imec & VUB, [2]imec

Room: Juliana 2

Our world is constrained by environmental limits and finite resources. Today's innovation process must factor in these limitations to foster the advent of technologies that remain sustainable on the long term. Sustainability is however a broad complex multidisciplinary topic, joining engineering with environmental sciences and encompassing full product life-cycle, which includes material and energy sourcing, product manufacturing, product usage and end-of-life disposal. Addressing this may seem a daunting task for the engineer involved in early technology R&D and product design.

This short course aims to address these difficulties by providing actionable insights and tools to integrate sustainability into the development of RF technologies. Our aim is to equip the course attendees with the knowledge and methodologies needed to incorporate sustainability into their research practices, with a focus on RF technologies that are currently being intensively research for the deployment of our future wireless communication networks. The event will be structured around three key axes: (i) the sustainability of the semiconductor industry, (ii) the embodied emissions of RF chips, and (iii) the operational emissions of RF technologies. By offering a deep dive into these areas, the workshop will empower engineers to make informed, sustainable decisions throughout the product lifecycle.

PROGRAMME

Sustainability in ICT: the double-edged quest for efficiency
David Bol [1]
[1]UCLouvain

Perspectives for sustainable ICT
Hughes Ferreboeuf [1]
[1]The Shift Project

Sustainability in the context of technological innovation
Anna Wieczorek [1]
[1]Eindhoven University of Technology

Quantifying the environmental impact of IC chip manufacturing
Cedric Rolin [1]
[1]Imec

Assessing the environmental impact of R&D cleanroom operations
Enola Fidon [1]
[1]CEA Leti, France

A life-cycle assessment study of RF technologies
Benjamin Vanhouche[1]
[1]Imec & VUB

Indium Phosphide Semiconductor Technology for Next Generation Communication Systems: Sustainability and Material Considerations
Laura Vauche[1]
[1]CEA Leti, France

Sustainable engineered substrate at Soitec
Alexandra Lelong[1]
[1]SOITEC

Bottom-up model of the life-cycle environmental impacts of cellular networks
Louis Golard [1]
[1]UCLouvain

THURSDAY 08:30 – 17:50

Basics of Systems Engineering for the Microwave Engineering Community

STh01
EuMC/
EuRAD

Chair: Ulf Johannsen[1]
Co-Chair: Ulf Könemann[2]
[1]TU Eindhoven , [2]Fraunhofer IEM

Room: Juliana 1

Modern microwave engineering systems are complex and highly integrated. For the future, the trend further points in this direction where heterogeneous integration, phased array antennas and massive-MIMO front-ends with associated signal processing algorithms are just a few prominent examples. With complexity and high technology integration comes the need for large, multi-disciplinary development teams that are located at several different enterprises and locations. Therefore, clear workflows and development methodologies are required to arrive at viable solutions within time and budget. Here, Systems Engineering comes into play. While Systems Engineering is its own discipline that is currently mainly employed for large cyber-physical systems, its basic principles are universal and can help the microwave engineering community deal with the increasing complexity of their systems. Therefore, this (interactive) course, given by experts, is dedicated to teaching the basics of Systems Engineering at Europe's largest microwave event

PROGRAMME

Why Systems Engineering is a Must-Have Skill for a Microwave Engineer

Ulf Johannsen[1]
[1]TU Eindhoven

Basics of Systems Engineering

Ulf Könemann[1]
[1]Fraunhofer IEM

Systems Engineering Applied to Microwave Engineering Systems

Markus Andres [1]
[1]HENSOLDT

THURSDAY 13:50 – 17:50

Synchronization in Distributed Radar – Prospective and Problems

STh02
EuRAD

Chair: Mohammed Jahangir[1]
Co-Chair: Darren Griffiths[1]
[1]University of Birmingham

Room: Juliana 3

Researchers and industrialists working on distributed radar systems, open to all career stages from junior to senior engineers. The workshop addresses a generic element required by all coherent radar networks which should maximise its reach. At the same time, the workshop will make mention to distributed radar applications within the EuRAD thematical areas, including but not limited to drone detection, collision avoidance but also cover wider aspects of radar surveillance and remote sensing such as maritime and space situational awareness.

PROGRAMME

Oscillator Stability – Theoretical Modelling and Simulations

Michael Antoniou[1], Ali Bekar[1]
[1]University of Birmingham

Radar Use Case Prospective

Mohammed Jahangir[1]
[1]University of Birmingham, UK

Synchronization Methods for Distributed Radar

Darren Griffiths[1]
[1]University of Birmingham

FRIDAY 08:30 – 12:30

Integrated Sensing and Communications: Fundamentals, State-of-the-Art and the Road Ahead

SF01
EuRAD

Chair: Maria-Sabrina Greco[1]
Co-Chair: Christos Masouros[2]
[1]University of Pisa, [2]UCL

Room: Juliana 1

The emergence of applications such as smart cities, urban security, smart mobility, and infrastructure monitoring, demands next-generation networks with multi-functional capabilities beyond communication to address 6G KPIs like ultrahigh data rates, precise localization, low latency, and energy efficiency, while aligning with the UN's Sustainable Development Goals. Spectrum congestion has been a major bottleneck in the network design, and for more than a decade, spectrum sharing, co-existence and dynamic spectrum licensing has been the prevalent paradigm. The proposed Short Course overviews the emerging wireless technology of Integrated Sensing and Communications (ISAC), that is shifting the paradigm from co-existence to co-design. The timeliness of this Short Course is underlined by the global push by academia, industry, and standards bodies to incorporate ISAC into 6G and beyond. Delegates will benefit from insights into ISAC's foundational principles, practical implementation strategies, and how it underpins emerging applications like intelligent transportation, WiFi sensing, and perceptive mobile networks. It offers a comprehensive view of how ISAC technologies can address spectrum congestion, improve sustainability, and create new opportunities in wireless network design, appealing to researchers, industry professionals, and early-stage scholars. The Short Course will cover the below content

- Motivation: emerging wireless applications demanding ISAC and the potential for a sustainable provision
- Signalling design: Sensing/Communication-Centric ISAC Designs
- Signalling design: Joint waveform design for ISAC, beamforming ISAC designs, pareto framework, and hardware efficient ISAC
- Network level ISAC design and optimization
- Distributed ISAC: Synchronisation issues and solutions
- Security challenges and opportunities for ISAC, and state of the art secure ISAC techniques
- Cognitive sensing techniques for ISAC
- MIMO Radar cognitive beamforming
- Experimentation and proof-of-concept results

PROGRAMME

Short course Part A

Christos Masouros[1]
[1]University College London

Short course Part B

Maria-Sabrina Greco[1]
[1]University of Pisa

FRIDAY 08:30 – 12:30

Nonlinear Radar: from Concepts to Applications

SF02
EuRAD

Chair: Anastasia Lavrenko[1]
[1]University of Twente

Room: Juliana 2

Conventional radar systems are well-suited for detection and tracking of highly reflective objects whose complex permeability differs significantly from the medium around them. Illuminated by an incident electromagnetic wave such objects reflect back a wave at the same frequency and a scaled amplitude, which is then detected and procced at the radar receiver. Nonlinear radar operates differently. It relies on the nonlinear properties of a target to reflect an electromagnetic wave at a frequency different from that of the illuminating signal. Such a nonlinear response can be enabled by target's inherent nonlinearities, as is the case with most electronic devices that use semiconductors, or by supplying the target with a specially designed transponder tag. One of the main advantages of nonlinear operation is that the background clutter is greatly reduced, since wave reflections from most objects are linear and can be easily filtered out at the receiver. This allows detection of objects that would otherwise be virtually invisible to the conventional radar. It also creates unique opportunities and challenges for system design. Unique properties of nonlinear radar systems makes it an attractive technology for small animal tracking, electronic surveillance, search and rescue, health monitoring, and automotive applications. This SC provides a comprehensive introduction into the field of nonlinear radar including main concepts, design approaches, most recent developments and common application use cases followed by a practical demonstration using a portable X-band FMCW nonliner radar developed at the University of Twente.

PROGRAMME

Nonlinear radar: Introduction and basic concepts

Anastasia Lavrenko[1]
[1]University of Twente

Design, analysis and characterization of nonlinear targets

Andrei Mogilnikov[1]
[1]University of Twente

X-band FMCW nonlinear radar: system design and evaluation

Anastasia Lavrenko[1]
[1]University of Twente

Use case examples and system demonstration

Andrei Mogilnikov[1]
[1]University of Twente

SUNDAY 08:30 – 17:50

Advancements in Technologies and Circuits Leading to 6G

WS01
EuMC/
EuMIC

Chair: Florinel Balteanu[1]
Co-Chair: Andrei Grebennikov[2]
[1]Skyworks Solutions Inc., [2]Sumitomo

Room: Mission 1

The research area of 6G RF technology is experiencing rapid growth, especially as 5G technology becomes more widespread. Future 6G networks will rely significantly on millimeter-wave (mm-wave) frequencies, reaching up to 300 GHz, crucial for achieving unprecedented data rates and connectivity. The remarkable increase in global smartphone usage has been driven by advancements in CMOS semiconductor technology, particularly at cutting-edge feature sizes like 3nm, greatly enhancing computational capabilities. The 5G mobile industry operates on a large scale, necessitating extensive testing of hardware changes and improvements to ensure functionality and reliability before mass deployment. This workshop will discuss the current 5G RF cellular technology designs, the challenges of implementing 5G, and the expected circuit and technology advancements that will lead to 6G. Additionally, it will explore the integral role of mm-wave frequencies in future 6G networks, supported by ongoing improvements in CMOS technology that enhance performance through digital signal processing (DSP) and digital calibration.

PROGRAMME

Where and how could InP be competitive versus SiGe for 6G?

Frédéric Gianesello[1], Pascal Chevalier[1]
[1]ST Microelectronics

Circuit and architecture co-design for wideband and energy-efficient 6G systems

Christian Fager[1], Victor Åberg[2]
[1]Chalmers University, [2]Lund University

Recent Advancements of GaN HEMT Power Amplifiers towards 6G

Takuma Torii[1], Shintaro Shinjo[1]
[1]Mitsubishi Electric Corporation

CMOS mmW/THz phased-array design for 6G era

Kenichi Okada[1]
[1]Institute of Science, Tokyo, Japan

RF Front End Modules and Evolution to 6G

Florinel Balteanu[1]
[1]Skyworks Solutions Inc.

Design methodology for Sub-THz Power Amplifier for D-band

Nathalie Deltimple[1]
[1]INP/ENSEIRB-MATMECA Bordeaux

Radio architectures and enabling technologies for FR3 infrastructure

Rui Ma[1]
[1]pSemi Murata

Low-Complexity Adaptive Digital Predistortion for User Equipment Linearization

Pere L. Gilabert[1]
[1]Universitat Politècnica de Catalunya

SUNDAY 08:30 – 17:50

WS02
EuMC

Polymer Microwave Fiber (PMF) Communication for sub-THz, Low-Cost High Data Rate Short-Range Systems

Chair: Frida Strömbeck[1]
Co-Chair: Herbert Zirath[1]
[1]Chalmers University

Room: Mission 2

The recent development of high frequency semiconductor processes has enabled mm-Wave technologies to take advantage of the large bandwidths available at these frequencies (100-300 GHz) to achieve ultra-high data rates. One drawback is the corresponding larger free space path loss (FSPL), which can be compensated for by using high gain antennas. However, that will lead to a very directive link and lose its flexibility.
Polymer Microwave Fiber (PMF) is a promising alternative to use for these short-range communication links (less than 10 meters). It's a robust, low-cost solution which can support data rates exceeding 100 Gbps. These links are essential to future intra-box/module-to-module/in-cabin vehicle communication for example.
This workshop will cover recent developments in PMF design, interconnects and technologies for the PMF systems. State-of-the-art PMF communication links and breakthrough systems will be presented, as well as novel and promising future applications.

PROGRAMME

CMOS based circuits for high datarate PMF-links
Patrick Reynaert[1]
[1]KU Leuven

BiCMOS based high datarate PMF-links in D-band and H-band
Frida Strömbeck[1], Herbert Zirath[1]
[1]Chalmers University

Recent D and H-band PMF links
Jose Luis Gonzalez-Jimenez[1]
[1]CEA Leti

D-band Transition to PMFs and insight towards H-band
Laurent Petit[1]
[1]Radiall

D- and H-band PMF coupler integration in eWLB package
Maciej Wojnowski[1]
[1]Infineon

Recent advances in PMFs for high datarate communication
Maria Jozwicka[1]
[1]H&S

Applications of PMF-links for telecommunication systems
Sining An[1]
[1]Ericsson AB

Broadband Sub-THz Dielectric Waveguides
Samir Lagoug[1]
[1]IMS

SUNDAY 08:30 – 17:50

Acoustic Wave Filters for Space Applications

WS03
EuMC

Chair: Sylvain Ballandras[1]
Co-Chair: Eric Dominguez[1]
[1]SOITEC SA

Room: Quest

The last decades have seen a continuous improvement of mobile systems, from pioneer analogue voice telephony in the 80's to the Long Term Evolution in the 2010, and 5G nowadays: Gbps data rates are considered and billions of Subscriber Identification Modules (SIM) cards are located in Smartphones, Lap-Top and Internet of Things (IoT) devices. At the same time, satellite systems have evolved: from single GEO (Geosynchronous Earth Orbiting) equipments offering overseas services for international connections or few analogue TV channels to Low Earth Orbiting (LEO) constellations like Starlink or One Web, thousands of satellites are now deployed, delivering Internet Protocol based services for mobile or fixed users usually going through base stations. During the past ten years, a significant number of innovations have been developed to enhaunce the capability of passive acousto-electric devices to answer the imperative demands of filter characteristic improvment: Piezo-OnInsulator wafers, epitaxial-layer based films for BAW and SAW, new types of modes and devices, frequency operation increases, etc. All these improvements push to reconsider the use of such devices for satellite/Space communications Therefore, the workshop intends to illustrate, promote and foster all initiatives engaged in the domain of acousticbased RF filter solutions to answer the "New Space" needs and requirements in all the spectral segment of space telecommunications, from L- to C-band and pushing away the usually considered limits for SAW and BAW filters to achieve filtering operations above 10 GHz.

PROGRAMME

SAW filter technology trends for space applications
Olivier Vendier[1]
[1]TAS

Single crystal BAW
Marie Bousquet[1]
[1]CEA-Leti

Innovative SAW filter structures on POI for Space applications
Thierry Laroche[1]
[1]SOITEC SA, Besançon site

Advanced materials for POI wafers with high isolation properties
Jean-Pierre Raskin[1]
[1]UCL

SAW filters for space applications
Tormod Bjørnetun Haugen[1]
[1]Kongsberg

Innovative Acoustic Devices
Silvan Settler[1]
[1]École polytechnique fédérale de Lausanne (EPFL)

Combined BAW and IPD filters for 6G communications
Tuomas Pensala[1]
[1]VTT

New developments of SAW devices on POI
Baron Thomas F[1]
[1]FEMTO-ST

Evaluation tests for advanced SAW filters on POI for Space applications
Kaoutar Zeljami[1]
[1]ALTER Technoogy

SUNDAY 08:30 – 17:50

Additive Manufacturing for Microwave Components and Systems

WS04
EuMC

Chair: Tinus Stander[1]
Co-Chair: Cristiano Tomassoni[2]
[1]University of Pretoria, [2]University of Perugia

Room: Auditorium

Additive manufacturing has firmly established itself as a valuable tool for rapid prototyping and cost-effective low-volume production of RF, microwave and mm-wave devices and systems. While powder bed fusion techniques remain important in direct printing of metal components, metallization of 3D printed ceramics, photopolymers and thermoplastics have created new opportunities with significant cost and weight advantages. In particular, the recent availability of low loss dielectric materials have enables the use of 3D printed materials as functional components in microwave designs, rather than merely metallized structural components. Low-loss, low-cost metallization and accurate characterization of these materials are key to their success. This includes the use of printed conductive inks, creating all-additive approaches for selectively metallized parts.

This workshop brings together additive manufacturing experts from academia and industry to showcase new design and manufacturing techniques, as well as equipment and materials, for additively manufactured microwave components. The workshop also highlights application of these designs in aerospace, IoT, 5G, radio astronomy and industrial radars.

PROGRAMME

Dielectric-filled 3D printed waveguides and waveguide insert filters
Tinus Stander[1]
[1]University of Pretoria

Recent advances in additive manufacturing for radar applications
Carlos Sempere Chaves[1]
[1]Fraunhofer FHR

3D printed ceramic filters for space applications
Cristiano Tomassoni[1]
[1]University of Perugia

Characterization of printed dielectric materials in the millimeter wave range
Paola Escobari Vargas[1]
[1]Eindhoven University of Technology

Zero-Power Additively Manufactured FHE-Enabled RF Ultrabroadband Modules for IoT, Precision Agriculture, Industry 4.0 and Digital Twins Applications: the scaleup to 5G+ and 150GHz+
Manos M. Tentzeris[1]
[1]Georgia Institute of Technology

Monolithically-Integrated 3D Printed RF Filters: New Topologies, Miniaturization & Performance Improvement Techniques
Dimitra Psychogiou[1]
[1]University College Cork

ATARU Transforming DLP Tech: New 3D Print Resin with Outstanding Dielectric & Thermo-Mechanical Properties
Stefan Schlisske[1]
[1]NanoDimension

On the design of filters and passives with metal 3D printing technology
Stefano Sirci[1]
[1]SwissTo12

Recent developments on topologies and technological processes for additively manufactured microwave devices
Benjamin Potelon[1]
[1]Lab-STICC, IMT-Atlantique, Brest, France

Emerging solutions for modern antenna challenges - lens antennas and substrates via 3D printed gradient dielectrics
Stefano Dada[1]
[1]Rogers Corporation

Slotted Waveguides: enabling complex waveguide designs
Konstantin Lomakin[1]
[1]Golden Devices GmbH

SUNDAY 08:30 – 17:50

Opportunities and Challenges for the Cryogenic Microwave Control of Quantum Processors

WS05
EuMC/
EuMIC

Chair: Masoud Babaie[1]
Co-Chair: Fabio Sebastiano[1]
[1]TU Delft

Room: Spark

Quantum computers have the potential to solve problems that are intractable for classical digital computers, offering breakthroughs in fields such as cryptography, material science, and optimization. A quantum computing system consists of two main components: the quantum processor, which operates at milli-Kelvin (mK) temperatures, and the electronic interface, which must function at cryogenic temperatures to address scalability challenges. This interface plays a critical role and involves three primary functions: multiplexing and demultiplexing, control, and readout. As a result, microwave engineering and circuit design are essential to developing this interface, ensuring high-fidelity qubit control and readout.

To effectively design this interface, microwave engineers must first understand the specific operational requirements of different qubit platforms and the associated needs for signal generation and acquisition. The workshop will begin with an introduction to two of the most promising qubit platforms: transmons and color centers, focusing on their unique signal requirements and control challenges.

Designing circuits for cryogenic temperatures also requires robust modeling techniques. We will discuss key device characteristics and modeling strategies at 4K, which are essential for developing reliable cryogenic electronics that can function in quantum systems.

One major challenge in quantum computing is minimizing the number of cables between the qubit stage (milli-Kelvin) and the electronics stage (4K). To address this, we will explore the role of cryogenic multiplexers in reducing cable complexity and improving signal transmission. The workshop will then cover the readout chain, where achieving an ultra-low noise figure across the entire receiver is crucial. We will present two approaches: the use of active low-noise amplifiers (LNAs) in FD-SOI technology, and a fully passive amplification strategy using parametric amplifiers. Finally, the session will focus on qubit control, highlighting the design of high-speed DACs capable of generating precise control pulses for transmon qubits, as well as the generation of high-voltage pulses for ion-trap qubits.

PROGRAMME

Engineering Quantum Control: Challenges and Innivations in the Microwave Domain

Adriaan Rol[1]
[1]Orange Quantum Systems

Realising entanglement networks with colour-center qubits

Conor Bradley[1]
[1]Delft Networks

MOSFET Modeling for the Design of Cryo-CMOS Cirsuits with the sEKV Model

Christian Enz[1]
[1]EPFL

Developing Cryogenic Standard Responses with Uncertainties at 4.2 K using a Thermo-Mechanical EM Approach

Marco Spirito[1]
[1]Delft University of Technology

Scaling silicon-based quantum computing using 22 nm FDSOI technology

Fernando Gonzalez-Zalba[1]
[1]Quantum Motion

A 40 GS/s 8b-DAC SST-TX in 7 nm FinFET CMOS for cryogenic quantum applications with 32kB SRAM-based RF-DDS AWG

Marcel Kossel[1]
[1]IBM

Design of Cryogenic Integrated Circuits for a Trapped Ion Quantum Computer

Vadim Issakov[1]
[1]U.Braunschweig

Cryo-CMOS Degenerate Parametric Amplifier: An Exploration of Ultra-low Noise Quantum State Discrimination on Silicon

Cheng Wang[1]
[1]UESTC

SUNDAY 08:30 – 17:50

RFIC Design, Packaging and Antenna Solutions for mmWave and Sub-THz Communication and Radar

WS06
EuMC/
EuMIC

Chair: Ivan Ndip[1]
Co-Chair: Matthias Wietstruck[2]
[1]Brandenburg University of Technology (BTU)/ Fraunhofer IZM, [2]Leibniz Institute for High Performance Microelectronics, IHP GmbH

Room: Flash

In this workshop, experts from academia and industry will present the latest developments on RFIC design, antenna and packaging solutions for mmWave and sub-THz wireless communication and radar sensing applications.

First, BiCMOS technology and process design kit for mmWave monolithically integrated circuits as well as communication and sensing applications of this technology above 100 GHz will be presented. This will be followed by two presentations focusing on different aspects of SiGe-based transceiver design for radar applications above 100 GHz. Challenges and design solutions of CMOS-based on-chip antennas at D-band will be presented. The remaining four presentations will concentrate on RF packaging design and system-integration technologies. Specifically, wafer-level packaging, silicon interposers, interconnects and waveguide transitions as well as novel system-in-package (SiP) and AirCore waveguide technologies for mmWave and sub-THz wireless applications will be extensively discussed.

PROGRAMME

BiCMOS Technology and Design Kit for High-Frequency Communication and Sensing Applications

Klaus Aufinger[1]
[1]Infineon

High-Power Millimeter-Wave Power Amplifiers above 100 GHz in Silicon-Germanium Technology

Ahmet Çağri Ulusoy[1]
[1]Karlsruhe Institute of Technology (KIT)

SiGe IC Design for Radar Applications Beyond 100 GHz

Dominic Funke[1]
[1]Fraunhofer FHR & Ruhr University Bochum

Integrated Signal Generation and on-chip antennas up to 300 GHz in CMOS

Vadim Issakov[1]
[1]Technical University Braunschweig

SiGe BiCMOS and Wafer-level Packaging Technologies for mm-Wave/sub-THz Applications

Matthias Wietstruck[1]
[1]Leibniz Institute for High Performance Microelectronics, IHP GmbH

TERASi Next Generation Packaging: Enabling SiP and Chiplets for E-Band and Beyond

Kristófer Kristinsson[1], Adrian Gomez-Torrent[1], Bernhard Beuerle[1], James Campion[2]
[1]TERASi AB, [2]TeraSi AB, Sweden

Heterogeneous Integration for the Next Generation of Communication and Sensing

Xiao Sun[1]
[1]IMEC

Overview of Compact and Low-loss integration concepts for 3D Metal Waveguide and Multi-layer Gap Waveguide Antenna modules at mmWave frequency range

Ashraf Uz Zaman[1]
[1]Chalmers University

SUNDAY 08:30 – 17:50

Integrated Microwave Photonics

WS07
EuMC

Chair: Chris Roeloffzen[1]
Co-Chair: Christos Tsokos[2]
[1]LioniX International, [2]Institute of Communication and Computer Systems

Room: Glow

Join us for an insightful workshop exploring the transformative potential of integrated microwave photonics. The morning session, "Illuminating the Future: Exploring Applications and Systems of Integrated Microwave Photonics," delves into cutting-edge innovations that leverage photonic technologies to address challenges in communication, sensing, and signal processing. In the afternoon, "Building the Foundation: Photonic Integration Platforms and Enabling Key Components," we focus on the foundational technologies driving photonic integration, highlighting photonic integration circuit (PIC) platforms, materials, and components essential for next-generation solutions. This workshop offers a comprehensive view of the field, fostering dialogue among researchers, engineers, and industry professionals shaping the future of microwave photonics.

PROGRAMME

RF Photonic Front-end Technologies for THz Communications

Andreas Stohr[1]
[1]Microwave Photonics GmbH

Optical Beamforming Networks for Single- and Multi-Beam Operation for Next Generation Communication Networks

Eftsathios Andrianopoulos[1]
[1]National Technical University of Athens

A broadband 1-40GHz RF receiver based on hybrid integrated photonics for agile signal identification

Federico Camponeschi[1]
[1]Scuola Superiore Sant'Anna

Programmable and Reconfigurable Photonic Circuits for Signal Processing

Wim Bogaerts[1]
[1]Ghent University

Millimeter-wave phase arrays enabled by photonic integrated circuits

Guillermo Carpintero[1]
[1]LeapWave Technologies

Low loss Silicon Nitride PIC platform for space applications

Robert Grootjans[1]
[1]LioniX International BV

Programmable Microwave Photonic Signal Processor in the Thin-Film Lithium Niobate Platform

David Marpaung[1]
[1]Nonlinear Nanophotonics group

Breaking the Bottleneck: High-Volume Manufacturing of TFLN PICs for Telecom & Datacom

Amir Ghadimi[1]
[1]Lightium

SUNDAY 08:30 – 17:50

Thermal Effects and Heat Management in Active Phased Arrays: Chip, Package and Antenna Level Concepts

WS08
EuMC/
EuMIC

Chair: Yanki Aslan[1]
[1]Delft University of Technology

Room: Beam

The emerging wireless communication and sensing applications require high power and compact active phased array systems integrating electronics with antennas. Due to limited efficiency, a significant portion of power is converted to heat. To maintain component safety, increase lifetime and ensure performance reliability, it is crucial to remove the excessive heat through effective conduction and convection mechanisms. Thermal management is currently being applied at the level of chips, packaging, substrates, antennas and external coolers, which requires multiphysics modeling, characterization, design, and testing approaches. With expert speakers from both industry and academia, this workshop will provide a multidisciplinary understanding on the joint electro-thermal behavior of front-ends and antennas. The workshop will also discuss various state-of-the-art cooling technologies in integrated phased arrays, and analyze their performance-complexity trade-offs.

PROGRAMME

Overview and Challenges in Phased Array Therman Management

Yanki Aslan[1]
[1]Delft University of Technology

Analysis of Electro-Thermal Effects in GaN MMICs and Active Antenna Transmitters

Tobias Kristensen[1]
[1]Chalmers University of Technology

Electro-thermal Analysis for RF Power Applications

Graeme Ritchie[1]
[1]Cadence Design Systems

Thermal Modeling and Characterization of GaN and LDMOS Power Amplifiers

Amir Mirza Gheytaghi[1]
[1]Ampleon

Competitive and Sustainable Advanced Packaging (CSAP)- a new approach to FO-PLP

Edsger Smits[1]
[1]CITC Chip Integration Technology Center

Thermal Modelling of Active Antennas and Dual-Functional Heatsink Antenna Concepts

Feza Turgay Celik[1]
[1]Delft University of Technology

Development and Testing of a Two-Phase Mechanically Pumped Loop for Active Antennae

Charlton Castro[1]
[1]NLR - Royal Netherlands Aerospace Centre

A Thermally Enhanced All-Metal Antenna Array for Millimeter-wave Applications

Thijs Brouwers[1]
[1]The Antenna Company

SUNDAY 08:30 – 17:50

Innovations in Load-Pull Techniques for Wideband and High-Frequency Applications

WS09
EuMC/
EuMIC

Chair: Gian Piero Gibiino[1]
Co-Chair: Olof Bengtsson[2]
[1]University of Bologna, Italy, [2]Ferdinand-Braun-Institut (Germany)

Room: Juliana 1

The load-pull principle, introduced over 50 years ago, has become a cornerstone for the characterization of RF power transistors. While early methods relied on mechanical slug tuners and RF power meters, modern load-pull systems address the challenges of next-generation wireless systems, including wideband operation and sub-THz implementations. This workshop brings together experts to discuss the latest advancements in load-pull measurement technologies, focusing on these emerging demands.

Topics will include state-of-the-art active, passive, and hybrid load-pull techniques, advanced calibration methods, and their applications in transistor and power amplifier characterization. Participants will gain valuable insights into behavioral modeling approaches utilizing load-pull measurements and wideband active load-pull technologies in both frequency and time domains. Case studies will explore on-wafer characterization, phased-array emulation, and reverse intermodulation distortion in MIMO systems. The workshop will also spotlight innovations in sub-THz systems, including the use of VNA frequency extenders for wideband signal testing.

PROGRAMME

Advanced loadpull measurements for next generation communication systems
Mauro Marchetti[1]
[1]Maury Microwave, USA

Multi Harmonic Active Load Pull for High Power, High Efficiency Transistor Characterisation
Gijs van der Bent[1]
[1]TNO, Netherlands

Optimised Large Signal Measurements for Behavioural Model Extraction
Paul J. Tasker[1]
[1]Cardiff University, UK

A Practical Comparison of various load pull methods for nonlinear DUT characterization
Sajjad Ahmed[1]
[1]Focus Microwaves, Canada

A VNA based wideband multiport measurement system for active load pull and coherent MIMO circuit characterization
Olof Bengtsson[1]
[1]Ferdinand-Braun-Institut, Germany

Measuring and Modeling Power Amplifier Performance under Varying Antenna Loads using Wideband Active Load-pull (WALP)
Troels Studsgaard Nielsen[1]
[1]Keysight Technologies, USA

Application of Wideband Active Load-Pull Technology for PA Components and Systems
Gian Piero Gibiino[1]
[1]University of Bologna, Italy

Emulation of large array distortion using active load pull techniques
Koen Buisman[1]
[1]University of Surrey, UK

Characterization and modeling of PA reverse intermodulation distortion in MIMO transmitter applications using dual injection active load pull approach
Christian Fager[1]
[1]Chalmers University, Sweden

Enabling Modulated Signal Measurements with VNA Frequency Extenders: A New Approach to Wideband Active Load-Pull at High Frequencies
Ahmed Ben Ayed[1]
[1]University of Waterloo, Canada

SUNDAY 08:30 – 17:50

Advanced mm-Wave IC Design: A Step Ahead

WS10
EuMC/
EuMIC

Chair: Luca Aluigi[1]
Co-Chair: Alessandro Fonte[2]
[1]Huawei Technologies, [2]SIAE Microelettronica

Room: Juliana 2

The design of advanced mm-wave integrated circuits (ICs) has become a critical area of research and development in modern communications, radar systems, satellite communications, and emerging technologies such as beyond-5G. As the demand for higher data rates, increased bandwidth, and more efficient power consumption intensifies, engineers face new and complex challenges in design and integration of mm-wave ICs.

The workshop will explore the cutting-edge advancements in mm-wave IC design, focusing on the key challenges ahead. Topics will include the integration of high-frequency components, power efficiency in high-speed operations, thermal management, and the evolving role of novel materials and fabrication processes. Special attention will also be given to the unique challenges and opportunities in satellite communications, where mm-wave technology plays a crucial role in enabling next-generation satellite networks and services.

Participants will gain insights into the opportunities these challenges present, as well as the potential solutions that are shaping the future of mm-wave technologies across various domains.

Join us for an in-depth discussion on how to overcome these hurdles and drive innovation in one of the most exciting areas of modern electronics.

PROGRAMME

Innovative Gallium Nitride technologies enable disruptive architectures of Front-end T/R chips

Ernesto Limiti[1]
[1]University of Rome Tor Vergata

Transistor stacking: an enabling technique for mm-wave load-modulated power amplifiers?

Anna Piacibello[1]
[1]Politecnico di Torino

Efficiency vs. Linearity in Power Amplifiers for Satellite Communications

Julio Andres Lonac[1]
[1]Huawei Technologies

Characterization and modelling of electron devices at mm-wave frequencies: What is so complex?

Antonio Raffo[1]
[1]University of Ferrara

Ultra-low phase-noise frequency generation at mm-Wave

Simone Mattia Dartizio[1]
[1]Politecnico di Milano

Wideband and Power-Efficient SiGe BiCMOS Building Blocks for D-Band Communications

Guglielmo De Filippi[1]
[1]Fondazione Chips-IT

Front-end design of SiGe BiCMOS analog receivers for 5G and beyond backhauling applications

Pasquale Tommasino[1]
[1]Sapienza University of Rome

130nm SiGe BiCMOS 1-bit Active Switch Dual Input LNA for Slot Antenna based ARIS Element

Giulio Brancali[1]
[1]University of Perugia

Integrated Multiple Switch-Beam Array Antenna For Resilient Communication Link M2m/Iot Application

Francesco Grego[1]
[1]Antecnica

Choosing the right technology – A comparison of Silicon-based and III-V technologies for millimeter-wave IC design s

Alessandro Fonte[1]
[1]SIAE Microelettronica

SUNDAY 13:50 – 17:50

The Path to 2030: Joint Communication and Sensing in the 6G Internet-of-Everything Era

WS11
EuMC/
EuMIC

Chair: Padmanava Sen[1]
Co-Chair: Sam Lemey[2]
[1]Barkhausen Institut, [2]Ghent University-imec

Room: Juliana 3

Joint Communications and Radio Sensing (JCAS), also referred to as Integrated Sensing and Communications (ISAC), has been a key focus of several 6G projects, discussions, and standardization platforms worldwide in recent years. It has been extensively explored as a critical part of next-generation communication systems beyond cellular networks. To expand the utilization of JCAS, a system-level co-design approach will serve as a key enabler, with RF hardware (frontend and antenna system) playing a pivotal role.

This workshop aims to cover the state-of-the-art advancements and emerging enabling technologies, with a specific focus on antenna systems, beamforming and array processing techniques, reconfigurable frontends, signal processing, privacy-preserving mechanisms and related demonstration platforms to identify the remaining gaps between ideas and actual deployments in real-world scenarios (aiming 2030 as the year of 6G deployments).

The workshop will span applications that use frequencies from sub-10 GHz (e.g., FR1, UWB) to sub-THz (e.g., D-band and 256 GHz), with multiple talks highlighting flexible architectures and dual-/wide-band methodologies. Comprising of six talks, the sessions emphasize deployable concepts for the 6G Internet-of-Everything era. They address deployment challenges and solutions across diverse frequency bands, showcasing innovations such as reconfigurable frontends and antennas, repurposing existing systems for new use cases, and promoting energy-efficient operation.

PROGRAMME

Reconfigurable frontends for Deployable Privacy-preserving ISAC/JCAS

Padmanava Sen[1]
[1]Barkhausen Institut

Ultra-wideband Joint Communication and Sensing for the Internet-of-Everything: from Self-Shielding Antenna System Design in the FR3 Band to Machine-Learning-Based Algorithms

Sam Lemey[1]
[1]Ghent University-imec

Novel Reconfiguration Techniques for Wideband and Low -profile Antenna Frontends in Joint Communication and Sensing Systems

Akram Alomainy[1]
[1]Queen Mary University of London

Practical aspects of integration of sensing functionality with radio communication systems

Marko E. Leinonen[1]
[1]University of Oulu

Dual -band Active Antenna Array System and Duplexer Transition for future JCAS applications in W-and D-band

Kevin Van Hastenberg[1]
[1]TU Eindhoven

SiGe BiCMOS Integrated Circuits and Systems for sub-THz Communication and Sensing

Corrado Carta[1]
[1]IHP Microelectronics

SUNDAY 13:50 – 17:50

AI and Data-Driven Modeling for RF/MW Design

WS12
EuMC/
EuMIC

Chair: Tom Dhaene[1]
Co-Chair: Domenico Spina[2]
[1]Ghent University, [2]Vrije Universiteit Brussel

Room: Juliana 4

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PROGRAMME

Neural Network-based methodologies for the design of modern RF and microwave systems

Domenico Spina[1]
[1]Vrije Universiteit Brussel

Data-efficient Bayesian techniques for microwave design and optimization

Tom Dhaene[1]
[1]Ghent University

Gaussian processes for data-efficient uncertainty quantification of electronic designs

Paolo Manfredi[1]
[1]Politecnico di Torino, Italy

Kernel-Based System Identification of Electronic Devices

Thijs Ullrick[1]
[1]Ghent University, Belgium

Machine Learning-enhanced development of complex antenna structures: topology synthesis, multi-objective optimization and robust design

Adrian Bekasiewicz[1]
[1]Gdansk University of Technology

SUNDAY 08:30 – 12:30

Microwave Carbon Footprint of Wireless Communications - from Energy Efficiency to Embedded Emissions

WS13
EuMC

Chair: Stefan Wunderer [1]
Co-Chair: Andreas Wentzel [2]
[1]NOKIA , [2]FBH

Room: Juliana 4

While wireless communications has been showing a steady growth over the past decade, sustainability puts a question mark behind this development. Already nowadays communication networks account for a non-negligible share to the global carbon footprint. Among this, the wireless infrastructure makes up for a considerable part, which is expected to see a significant increase in the coming years due to the exponential growth of transmitted data. The carbon footprint is currently dominated by energy consumption in the use phase. The percentage of used renewable energy within the infrastructure is increasing year by year. This will shift the carbon reduction efforts to embedded emissions for the network operators.

For the user equipment, on the other hand, fabrication plays an important role. In many European countries, equipment manufacturers have to provide data on the footprint in the data sheets. Altogether, the wireless community is forced to include the sustainability aspects into system and component development from the very beginning, which is new for the majority of those working in the field.

The purpose of this workshop is to provide insight into the necessary methodology, the tools, and the resulting data of how to assess the carbon footprint of wireless communication networks. The talks cover hardware components and chip technology as well as system considerations.

PROGRAMME

Sustainability as Design Imperative for 6G

Stefan Wunderer [1]
[1]NOKIA

Sustainability in the infrastructure of mobile communication networks

Kristian Lindskog [1]
[1]Ericsson

Energy Efficiency and Carbon Footprint of D-Band Point-to-Point Radio Links for 6G

Wolfgang Heinrich[1]
[1]FBH

Carbon footprint of an InP HBT process for D-band MMICs

Tuğana Aslan [1]
[1]FMD (Research Fab Microelectronics Germany)

MONDAY 08:30 – 17:50

Photonic Technologies and Systems for RF Applications

WM01
EuMC

Chair: Andreas Stöhr[1]
Co-Chair: Guillaume Ducournau[2]
[1]University Duisburg-Essen, [2]Univ of LILLE

Room: Juliana 1

Today, most devices and technologies rely on electronics to process, transmit, and analyze information. This workshop will address photonic RF technologies aiming to transform these electronic connections into photonic ones, increasing transmission speeds and improving responsiveness while consuming substantially lower levels of power. The key advantage of photonic RF technology is the potential to provide a continuous and interference-free coverage of multi-octave frequency bands up to the THz regime with only a single technological solution paving the way for a plethora of future applications, measurement technologies and metrology. Potential applications include high-capacity fixed wireless access, mobile mm-wave/THz communications, satellite communications, earth observation and techniques for ultrawideband signal processing. Generic functions include multi-octave bandwidth high output power RF sources and receivers, optically pumped mm-wave/THz receiver, phase-stable transport of RF signals over optical fiber, optical beamforming technology.

The workshop will provide an insight into the state-of-the-art of photonic RF technologies, and it aims to discuss whether maturity, performance and cost of photonic RF technology is ready to compete with existing solutions.

PROGRAMME

Photonic Terahertz Vector Network Analyzer for High-Frequency Test and Measurement Applications
Taro Eichler[1]
[1]Rohde & Schwarz

Antennas and Packaging for Multiuser Sub-THz Wireless Communication
Akanksha Bhutani[1]
[1]KIT

Broadband RF photonics systems enabled by dielectric waveguide technology
Guillermo Carpintero[1]
[1]UC3M

THz photodiodes
Sumer Makhlouf[1]
[1]UDE

Antenna-coupled terahertz optical modulators using electro-optic polymer waveguides
Takahiro Kaji [1]
[1]NICT

Photonic Terahertz Systems and their Use as High Frequency Measurement Equipment
Nico Vieweg[1]
[1]TOPTICA

RF over Fiber for Satellite Communications and Earth Observation
Yilmaz Uçar[1]
[1]MWP

THz photonics for system-level testing
Guillaume Ducournau[1]
[1]Univ of LILLE

Ultra-high stable laser source for microwave photonics and THz
Samir Kassi[1]
[1]Univ Grenoble Alpes & KAPAH Company

V-Band Optoelectronic Oscillator for Earth Observation Applications
Dimitrios Kastritsis[1]
[1]University of Cyprus

Laser Sources Architectures for Classical and Quantum RF and Optical Sensing”
Loic Morvan[1]
[1]THALES

THz transistors
Peter Huggard[1]
[1]Rutherford Appleton Labs

MONDAY 08:30 – 17:50

Latest Advancements in Microwave Measurement Techniques for Future Communications and Quantum Applications

WM02
EuMC

Chair: Xiaobang Shang[1]
Co-Chair: Nick Ridler [1]
[1]National Physical Laboratory (NPL), UK

Room: Juliana 2

This full-day workshop will explore the latest advancements in microwave measurement techniques. Topics covered include on-wafer S-parameter measurements at millimetre-wave and sub-terahertz frequencies, on-wafer noise figure measurements, microwave measurements at cryogenic temperatures, novel VNA calibration methods, millimetre-wave modulation effects in optical links, robot-based field measurement techniques, and the characterisation of dielectric materials at millimetre-wave frequencies, among others.

These advanced measurement techniques are crucial for the development of circuits aimed at future communications and quantum applications. The workshop will feature twelve presentations by distinguished speakers from diverse scientific backgrounds, including representatives from metrology institutes, instrumentation manufacturers, and both industry and academia. This will provide attendees with a comprehensive overview of the topics discussed.

The workshop will conclude with a dedicated session for open discussions, offering an opportunity for both speakers and attendees to engage in a dialogue about the challenges and opportunities facing the microwave measurement community in the years ahead. This interactive session will encourage contributions from all participants, fostering a collaborative exchange of ideas.

PROGRAMME

On-wafer S-parameter Measurement at Millimetre-wave and Sub-terahertz Frequencies
Xiaobang Shang[1]
[1]National Physical Laboratory

Characterisation of a Commercial High Resistance Silicon Calibration Substrate at D-band
Gia Ngoc Phung[1]
[1]PTB, Germany

On Accuracy and Traceability of Wafer-Level Measurements at mm-Wave Frequencies
Andrej Rumiantsev[1]
[1]MPI Corporation, Taiwan

AIST's Cryogenic Testbed System Using Transmission Line with High Thermal Insulation
Hiroyuki Kayano [1]
[1]Advanced Industrial Science and Technology (AIST), Japan

Working Towards A Large-scale Quantum Computer
James Kirkman [1]
[1]Quantum Motion, UK

Avoiding Pitfalls and Optimisation of RF/millimetre-wave Measurements at Cryogenic Temperatures
Gavin Fisher [1]
[1]FormFactor, Germany

R&D Development Challenges in RF and mmWave Lab for S-parameters and Noise Characterisation in an Industrial Environment
Joao Carlos Azevedo Goncalves[1]
[1]STMicroelectronics, France

Millimeter-wave modulation effects in optical links
Jon Martens [1]
[1]Anritsu, US

Recent Developments in VNA Calibration Techniques
Michael Ernst Gadringer[1]
[1]Graz University of Technology, Austria

Robot Based Microwave Measurement Technique
Jae-Yong Kwon[1]
[1]KRISS, South Korea

Radar Based Material Characterization Methods in the Millimetre-wave Range
Jan Barowski[1]
[1]Ruhr University Bochum, Germany

Broadband Material Characterization Using a Balanced-Type Circular Disk Resonator at Millimetre-wave and Sub-Terahertz Bands
Yuto Kato [1]
[1]National Metrology Institute of Japan, Japan

MONDAY 13:50 – 17:50

Standard, Prototype, and Measurement for Integrated Sensing and Communications in the COST Action INTERACT

WM03
EuMC/
EuRAD

Chair: Yang Miao[1]
[1]University of Twente

Room: Juliana 3

Integrated sensing and communications (ISAC) is considered as one of the key features for 6G, where radar sensing functionalities will be integrated with the radio communication infrastructure to provide more reliable high-speed communications and also to enable emerging new services like autonomous driving, smart human support, and industry 5.0. In ISAC systems, the accurate information of surrounding operation environment is as important as the high-speed data transmissions. Despite promising, there are yet challenges in ISAC system design, use case scenario characterization and modeling, resource allocation to balance and optimize the dual function performances in the use cases.

This workshop aims to provide the current state-of-the-art of the ISAC development in the framework of COST action INTERACT. This workshop focuses on the ISAC standard, prototype and measurement, aiming at providing both industry and academia a comprehensive end-to-end overview covering systems, resources, scenarios, and performance tradeoffs.

PROGRAMME

Digital twins, ISAC channel measurement, digital twin, and inference from various link scenarios

Narcis Cardona[1]
[1]University politecnica de valencia, Spain

Dual-band ISAC prototype and demo at upper mid-band

Bixing Yan[1]
[1]University of Twente, Netherlands

ISAC standardization in 3GPP

Christopher Mollen[1]
[1]Ericsson, Sweden

Distributed MIMO prototype and measurements for ISAC use cases

Minseok Kim[1]
[1]Niigata University, Japan

ISAC prototype, measurement and resource allocation

Carsten Smeenk[1]
[1]Fraunhofer IIS, Germany

WEDNESDAY 08:30 – 12:30

Innovative Semiconductor Device Architectures and Accurate Modeling for Emerging Applications

WW01
EuMC

Chair: Kenjiro Nishikawa [1]
Co-Chair: Kazuya Yamamoto[2]
[1]Kagoshima University , [2]Mitsubishi Electric Corporation

Room: Juliana CZ1

As it is well known, III-V-based amplifiers, especially GaN-based power amplifiers (PAs), are becoming popular even in communication fields such as sub-7GHz (FR1) base-stations and millimeter-wave satellite communication fields as well as military radar fields. InP-based low-noise amplifiers operating under cryogenic environments and diode-based rectenna have also been focused on by practical use of quantum computing and RFID/Sensing systems.

Despite these advancements, many circuit designers, particularly those working on GaN-based PA development, frequently express dissatisfaction with the design accuracy, largely attributable to the limitations and inaccuracies of existing transistor models. In the domain of cryogenic low-noise amplifiers, a substantial number of designers remain unaware of critical device-specific challenges and key design considerations, including precise transistor modeling. Furthermore, circuit designers engaged in the development of wireless power transfer (WPT) systems have the potential to leverage emerging technologies, such as graphene-based diodes integrated on flexible substrates, which could enable the realization of highly efficient and practical wireless power transfer solutions.

This workshop aims to address the pressing challenges faced by circuit designers by exploring innovative semiconductor device structures and advanced modeling techniques. While bridging the gap between theoretical advancements and practical commercialization, the research seeks to empower designers to achieve greater accuracy and efficiency in the design of cutting-edge semiconductor devices and systems.

It is, therefore, expected that the workshop attendees will be very useful for III-V-based device and amplifier designers; students, beginners, or less-experienced circuit/device designers as well as actual experts engaged in circuit- and device-developments for practical applications from sub-7GHz to millimeter-waves.

This proposal is endorsed by MTT-S TC-9.

PROGRAMME

Fundamentals and modeling techniques of high-power GaN HEMT devices for PA applications in sub-7 GHz base transceiver stations

Ken Kikuchi [1]
[1]Sumitomo Electirc Device Innovations, Inc

GaN HEMT Memory Effects and their Impact on RF PA Linearizability

Luis Cotimos Nunes[1]
[1]University of Aveiro

GaN Device Modeling for Trapping Effects and Its Applications

Yutaro Yamaguchi[1]
[1]Mitsubishi Electric Corporation

Low-power optimization of HEMT LNAs in quantum computing

Jan Grahn [1]
[1]Chalmers University of Technology

Advanced Graphene-based diode for high-efficient rectifiers

Renato Negra [1]
[1]RWTH Aachen University

WEDNESDAY 08:30 – 12:30

High Resolution Radar Technologies for Future Automotive Systems

WW02
EuMC/
EuRAD

Chair: Stephan Kruse[1]
Co-Chair: Ulf Johannsen[2]
[1]University of Paderborn , [2]Eindhoven University of Technology

Room: Juliana 1

High-resolution radar could be a key enabler for high-level autonomous driving. This workshop provides an overview of the latest trends and outcomes in high-resolution radar systems. Participants will gain insights into radar system design and implementation, state-of-the-art pure electronic radar, photonic radar, and integration techniques. The industrial keynote talk will explore the role of high-resolution radar in automotive safety. Subsequent scientific presentations will cover the latest advancements in pure electronic radar circuit and system design, photonic radar, antenna integration, and packaging using MID processes.

PROGRAMME

Resolution matters!
Marc-Michael Meinecke[1]
[1]Volkswagen AG

IC to antenna interfaces for high performance automotive mm-wave radars
Harish Nandagopal[1]
[1]NXP Semiconductors

Considering Photonic Integration in System Design
Antonella Bogoni [1]
[1]PNTLab CNIT

Application of MID technology for the creation of RF components
Thomas Mager [1]
[1]Fraunhofer IEM

Series-Fed Dipole Array for D-Band Sensing in Wafer Level Package Technology
Martijn de Kok [1]
[1]TNO

WEDNESDAY 08:30 – 12:30

RF & Sub-THz Heterogeneous Integration

WW03
EuMC/
EuMIC

Chair: Francesco Filice[1]
[1]IMEC (Leuven, Belgium)

Room: Juliana 3

5G and 6G applications push towards the development of highly integrated systems able to operate from sub-mm-wave up to sub-THz frequencies, leveraging both beamforming and MIMO techniques. The challenge in efficiency is tackled with heterogeneous MMIC integration. The SHIFT consortium covers a wide range of applications focusing on such topics. The workshop will aim at providing a full picture of the different actors required to realize these kinds of demonstrator, by some practical development examples and the contributions of designers and manufacturers.

Within this context, the first part will focus on the frequency range for 5G MIMO applications, showing an example of CMOS power amplifier design techniques in GaN-on-SiC addressing MIMO PA challenges. This development targets a final module consisting of a SiGe driver with a GaN power stage, with a packaging integration that allows to handle high-power signals.

A second larger part of the workshop will be devoted to the development of a beamforming D-band (140-GHz) transceiver system combining BiCMOS (B55x) and InP (EU foundry) devices by mean of advanced mm-wave PCB/packaging concepts, to address future telecommunication systems operating above 100 GHz.

Different contributions will cover this subject following a bottom-top approach, starting from the discussion of advanced IC-substrate packaging techniques and moving forward to the complete package design, considering the need for heterogeneous chip-embedding. The details of the related MMIC and antenna-arrays design will be provided.

PROGRAMME

D-band system-in-package design for 6G telecommunication modules.

Francesco Filice[1]
[1]IMEC

Heterogeneous Integration of 5G mMIMO SiGe Driver & GaN on SiC PA using European Sovereign Innovative Packaging Technology

Frédéric Gianesello[1]
[1]STMicroelectronics

Towards efficient radio modules beyond 100 GHz: packaging, antenna and co-design solutions

Francesco Foglia Manzillo[1]
[1]CEA - LETI

Leveraging InP D-HBT Technology for future mm-wave and sub-THz applications via hetero-integration: present situation and future needs

Bertrand Ardouin[1]
[1]III-V Lab

Enabler technologies for beyond 100GHz applications & 6G telecommunication

Daniel Schlick [1]
[1]AT&S

WEDNESDAY 08:30 – 12:30

Recent Progress in Compact, Ultra-Low Phase Noise Microwave-Photonic Frequency Synthesis

WW04
EuMC

Chair: J. Christoph Scheytt [1]
Co-Chair: Franz-Xaver Kärtner [2]
[1]Paderborn University , [2]DESY / Hamburg University

Room: Juliana 4

This workshop will introduce participants to microwave photonic frequency synthesis, with a focus on achieving ultra-low phase noise through the use of mode-locked lasers and/or optical frequency division. As the demand for higher precision and frequency stability in microwave systems increases, particularly in areas such as telecommunications, radar and time-frequency metrology, the ability to generate low phase noise microwave signals becomes increasingly critical. Optical techniques have emerged as powerful tools for frequency synthesis due to the exceptional frequency stability, wide frequency range from microwave to THz, and low noise of optical oscillators. Besides ultra-low phase noise frequency synthesis, another aspect of the workshop will be compact realizations from current benchtop devices to future chip-scale microwave-photonic frequency synthesizers

PROGRAMME

Integrated photonic low-noise microwave and mm-wave synthesis

Scott Diddams [1]
[1]NIST, University of Colorado, CO, US

The Power of Free-Running: Generating Microwaves Without Servo Bumps

Thomas Schibli [1]
[1]University of Colorado, CO, US

Low phase noise microwave frequency synthesis using OEPLL and OPLL

Meysam Bahmanian[1]
[1]Paderborn University, Germany

Compact frequency comb systems for timing transfer and low-noise microwave generation

Jungwon Kim [1]
[1]KAIST, South-Korea

Chip-based low noise photonic microwave oscillators via integrated optical frequency division

Jiang Li [1]
[1]HQ Photonics, Pasadena, CA, US

THURSDAY 08:30 – 17:50

Automotive Radar Research Trends

WTh01
EuRAD

Chair: Martin Hitzler[1]
Co-Chair: Jonathan Bechter[2]
[1]Ulm University, [2]Zendar GmbH

Room: Juliana 2

The workshop aims to create an overview of today's automotive radar research, and wants to show what is required to bring these technologies to application. We expect strong advancements in the fields of artificial intelligence for radars, distributed radar networks, and advanced radar signal processing concepts. With sufficient compute and memory ressources those technologies unlock next level automotive radar performance. Today, algorithm execution is mostly limited by the ressources on smart radars, which typically use object or point cloud interfaces. To overcome the compute limitations, it seems reasonable to run the radar data processing completely or partly on a central or zonal processor. The workshop talks show examples for future radar technologies, like object detection and classification, road surface classification, radar perception, and coherent radar network processing. The presented examples are discussed with view on interface and compute requirements. We want to create an understanding of what automotive radars can achieve in future, and which interfaces and compute and memory ressources need to be provided.

PROGRAMME

On the Annotation of Radar Data for Machine LearningBased Object Detection in Automotive Scenarios

Max Heidbrink[1]
[1]FriedrichAlexanderUniversität ErlangenNuremberg, Germany

Next-Gen, AI-Driven Radar Perception for Automotive and Beyond

Andras Palffy[1]
[1]Perciv AI, The Netherlands

Multi-modal Automotive High-resolution Imagery and Scene Recognition using Tracking and Segmentation Approaches

Anum Pirkani[1]
[1]The University of Birmingham

FMCW radar simulation: closing the gap to camera simulation realism?

David Van Hamme[1]
[1]Universiteit Gent, Belgium

Polarimetry for automotive MIMO radars

Alexander Yarovoy[1]
[1]Delft University of Technology, The Netherlands

AI Processing and Radar Networks using Satellite Radars

Jonathan Bechter[1]
[1]Zendar GmbH

Radar systems For Large Array Apertures

Feike Jansen[1]
[1]NXP Semiconductors

Synchronization concepts for automotive radar networks

Julian Aguilar[1]
[1]Ulm University

THURSDAY 08:30 – 12:30

Multistatic/Distributed Radar System

WTh02
EuRAD

Chair: Matthew Ritchie[1]
Co-Chair: Elisa Giusti [2]
[1]UCL , [2]CNIT

Room: Juliana 3

This workshop will explore recent advancements in multistatic and distributed radar systems, addressing key challenges, experimental results, and emerging applications. The event will provide a comprehensive overview of the state of the art in the field, offering participants valuable insights into both fundamental and applied aspects of radar systems.

The primary topics covered will include synchronization and timing requirements, which are essential for ensuring accurate signal processing in distributed radar architectures. The discussion will explore the challenges associated with both coherent and incoherent signal processing techniques and the strategies employed to achieve precise synchronization across multiple radar nodes, enabling effective data fusion and reliable performance in multistatic setups.

The workshop will also delve into practical applications such as passive radar techniques and SAR measurements, addressing the benefits and limitations of various system configurations and platforms.

Finally, the focus will shift to practical implementations and experimental results, highlighting recent advancements in multi-bistatic radar imaging, synchronization techniques, and distributed sensing systems. The discussions will feature real-world case studies and insights into the latest innovations, providing attendees with a deeper understanding of how these technologies are being deployed in current radar systems.

By presenting these cutting-edge topics, the workshop will be highly relevant for professionals working in radar systems, radar signal processing, and distributed sensing technologies, offering valuable perspectives on current challenges and future directions in the field

PROGRAMME

Multistatic Sensing – Introduction to Benefits and Challenges

Matthew Ritchie[1]
[1]UCL

Timing/sync requirements

Piers Beasley[1]
[1]BAE

Distributed passive radar systems

Krzysztof Kulpa[1]
[1]WUT

Distributed SAR measurements

Michael Antoniou[1]
[1]UoB

Multi-bistatic Interferometric ISAR

Elisa Giusti [1]
[1]CNIT

THURSDAY 08:30 – 11:30

Active Phased Arrays: Bridging Design and Measurement for Young and Industry Professionals Part 1

WTh03
EuMC

Chair: Kamil Yavuz Kapusuz[1]
Co-Chair: Marc Dirix[2]
[1]IMEC-Ghent University/Belgium, [2]Emerson & Cuming AC

Room: Spark

The workshop Active Phased Arrays: Bridging Design and Measurement for Young and Industry Professionals aims to provide a comprehensive view of the evolving landscape of active phased array technologies, with a strong emphasis on practical integration, simulation, and measurement challenges. Designed to connect young professionals with experienced experts from industry and academia, this event fosters cross-disciplinary dialogue and collaboration.

The workshop explores key developments in the design, realization, and optimization of small and large-sized active phased array systems operating across a broad frequency spectrum, from megahertz (MHz) to terahertz (THz). It covers a wide range of topics, including advanced simulation tools, integration techniques, efficient thermal management, and innovative phased array architectures. The program highlights the importance of bridging theory and application by addressing the full design-to-deployment pipeline, including system-level thinking and cross-functional co-design.

In addition to the technical content, the workshop includes interactive opportunities for networking and career development, encouraging participants to engage with peers, mentors, and potential collaborators. By promoting both technical depth and practical insight, the workshop supports the growth of a new generation of engineers and researchers capable of driving innovation in (active) phased array technologies for communications, sensing, and beyond.

PROGRAMME

IEEE MTT-S Young Professionals: Driving Innovations from MHz to THz

Goutam Chattopadhyay[1]
[1]2025 President, IEEE MTT-S

Towards Low-Loss Integration of D-Band Phased Arrays with CMOS Beamformers and SiGe Power Amplifiers

Samuel Rimbaut[1]
[1]Ghent University

Dedicated Software Tool for Rapid Full-Wave Design, Optimisation and Analysis of Phased Array Antennas

Cecilia Cappellin[1]
[1]TICRA

Coffee Break

Design, Simulation and Realization of Phased Array Antennas

Simona Bruni[1]
[1]IMST

THURSDAY 13:50 – 17:50

Active Phased Arrays: Bridging Design and Measurement for Young and Industry Professionals Part 2

WTh03
EuMC

Chair: Kamil Yavuz Kapusuz[1]
Co-Chair: Marc Dirix[2]
[1]IMEC-Ghent University/Belgium, [2]Emerson & Cuming AC

Room: Flash

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PROGRAMME

Leveraging Open-Source Silicon Design for European Competitiveness

Thomas Parry[1]
[1]Spherical

Small Scale Integrated Antenna Systems

David Sillars[1]
[1]Qorvo

A Holistic Design Approach for D-Band Telecommunication/ Sensing Packages and Antenna-Arrays

Francesco Filice[1]
[1]IMEC, Belgium

Coffee Break

Integrated Antenna Design and Cooling Concepts in Active Phased Arrays

Yanki Aslan[1]
[1]Delft University of Technology

Enabling Wide-Angle 2D Scanning with Dielectric Resonator Antenna Arrays

Tudor Popa[1]
[1]The Antenna Company

Get Together and Drinks

ANSYS & CADFEM
Technical Workshops

Tuesday 23, Wednesday 24 and Thursday 25 September 2025
Time: 09:30 - 16:30 (Tue-Wed), 09:30 - 14:30 (Thu)
Room: Croese 1

Cost: Free to attend, for registration contact: sojka@ihp-microelectronics.com

Ansys is the industry-leading simulation tool for 3D full-wave electromagnetic field simulation. It enables engineers to design high-frequency electronic products such as antennas, RF/microwave components, and high-speed interconnects with unmatched accuracy and efficiency.

Workshops on various topics from:
Ansys: David Prestaux: Principal Application Engineer, Dr. Alireza Kazemzadeh: Senior Application Engineer, Markus Laudien: Senior Principal Application Engineer, Arien Sligar: Senior Principal Product Specialist

CADFEM: Alexander Shalaby, RF Electromagnetics Product Manager
Fraunhofer Institut. für Nachrichtentechnik, HHI: Dr. Alexander Popugaev, Milan Deumer, Vitor Almeida, Mehmet Ahad Yurtoglu

DLR (Deutsches Zentrum für Luft- und Raumfahrt e.V.): Dr. Stefano Caizzone
imec: Francesco Filice

Click here for more information and the full agenda.

IHP
Technical Workshop

Wednesday 24 September 2025
09:30 – 13:00
Room: Croese 2

Cost: Free to attend, for registration contact: sojka@ihp-microelectronics.com

24th IHP Technology & Service Workshop
IHP is one of the world's leading research institutions in the fields of silicon-germanium electronics, and its electronic and photonic-electronic technologies and circuits are among the most powerful in the world. The workshop will present the latest information on IHP's technologies and offerings, which are well established in applications such as wireless and broadband communications, health, space and Industry 4.0

Presentations:
A. Mai: IHP's Research & Development for CMOS+X Technology Extensions
F. Vater: Process Design Kit to develop products, serve education and support research projects.
R. Scholz: MPW Service for SiGe BiCMOS, Silicon Photonics and special offers for Open Source Desings
TBA: IHP Solutions GmbH: Production, Value-Added Services for Customers' ASICs and IC Design

Dassault Systèmes
Technical Workshop

Tuesday 23 September 2025
08:30 – 17:50
Room: Croese 2

Cost: Free to attend for all EuMW 2025 registrants

This workshop will cover advanced techniques and tools in RF and applied electromagnetics, focusing on measurement, modeling, and simulation workflows.

Participants will explore the powerful capabilities of CST Studio Suite, with topics including thermal analysis, filters and RF components, reflective intelligent surfaces, GRIN lenses, antenna arrays, and highlights of the latest features in CST Studio Suite.

A new addition in the SIMULIA portfolio is IVCAD Suite (previously AMCAD Engineering), which focuses on transistor and non-linear circuit measurement and modeling, as well as RF system simulation.

The session will demonstrate how these tools seamlessly integrate to streamline RF design and analysis. Join us to discover cutting-edge solutions for addressing complex challenges in RF systems.

Click here for more information and the full agenda.

SUNDAY OVERVIEW

Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Mission 1	WS-01 Advancements in Technologies and Circuits Leading to 6G			
Mission 2	WS-02 Polymer Microwave Fiber (PMF) Communication for Sub-THz, Low-Cost High Data Rate Short-Range Systems			
Quest	WS-03 Acoustic Wave Filters for Space Applications			
Expedition	SS-01 Fundamentals of Microwave PA Design			
Auditorium	WS-04 Additive Manufacturing for Microwave Components and Systems			
Spark	WS-05 Opportunities and Challenges for the Cryogenic Microwave Control of Quantum Processors			
Flash	WS-06 RFIC Design, Packaging and Antenna Solutions for mm-Wave and Sub-THz Communication and Radar			
Glow	WS-07 Integrated Microwave Photonics			
Beam	WS-08 Thermal Effects and Heat Management in Active Phased Arrays: Chip, Package and Antenna Level Concepts			
Juliana CZ1	14th Tom Brazil Doctoral School of Microwaves Co-design and heterogeneous integration for Future Electronic Systems			
Juliana 1	WS-09 Innovations in Load-pull Techniques for Wideband and High-frequency Applications			
Juliana 2	WS-10 Advanced mm-Wave IC Design: A Step Ahead			
Juliana 3	SS-02 Wearable Antenna Systems for Joint Body-centric Communication, Powering and Sensing		WS-11 The Path to 2030: Joint Communication and Sensing in the 6G Internet-of-Everything Era	
Juliana 4	WS-13 Microwave Carbon Footprint of Wireless Commuincations - From Energy Efficiency to Embedded Emissions		WS-12 AI and Data-Driven Modeling for RF/MW Design	

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Room	Evening programme
Off site locations	Young Professional Get-Together Location: Boules Club

EuMC EuMIC EuRAD Students EuMW Exhibitors

MONDAY OVERVIEW

Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Progress				**EuMIC10** Foundry Panel
Mission 1		**EuMIC02** Doherty Amplifiers and Linearizers for Communication Systems	**EuMIC06** Microwave and mm-Wave Integrated Power Amplifiers	
Mission 2		**EuMIC03** High-Performance Integrated LNAs	**EuMIC07** RF Building Blocks in CMOS and BiCMOS Technologies	
Quest		**EuMIC04** Technologies for mm-Wave Transmitters and Receivers	**EuMIC08** mmWave Frequency Generation and Translation	
Expedition		**EuMIC05** Integrated Circuits for Emerging Applications	**EuMIC09** Emerging Architectures for Communications	
Polar	**EuMIC01** EuMIC Opening Session			
Auditorium	**6G Forum**			
Spark	**European Microwave School in Radars** Build a 1GHz FMCW Radar in a day			
Juliana 1	**WM-01** Photonic Technologies and Systems for RF Applications			
Juliana 2	**WM-02** Latest Advancements in Microwave Measurement Techniques for Future Communications and Quantum Applications			
Juliana 3	**SM-01** Architecture and Applications for Emerging SATCOM and NTN Communication Networks		**WM-03** Standard, Prototype, and Measurement for Integrated Sensing and Communications in the COST action INTERACT	
Juliana 4	**SM-02** Radiative Wireless Power Transfer Basics and Implementation			

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Room	Evening programme
Barzone	**6G Forum** Walking Dinner
Off site locations	**EuMIC Get-Together** Location: Paushuize

EuMC EuMIC EuRAD Students EuMW Exhibitors

TUESDAY OVERVIEW

Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Progress	**Automotive Forum**			
Mission 1	**EuMIC/EuMC01** Load-Modulated High-Efficiency Power Amplifiers		**EuMW02** EuMC/APMC Special Session: mm-Wave and THz Circuits and Systems	
Mission 2	**EuMIC11** GaN Amplifiers from VHF to V-band		**EuMIC14** mm-Wave GaN Technology	**EuMC07** Materials and Packaging Concepts for Microwave and mm-Wave Applications
Quest	**EuMIC12** mmWave Amplifiers and Components		**EuMIC15** Characterization, Modelling, and Simulation of Devices and Circuits	**EuMC08** mm-Wave Antennas for Radar and Wireless Communications
Expedition	**EuMIC13** RF and Millimeter-Wave Devices		**EuMIC16** Wideband and mm-Wave Building Blocks	**EuMC09** RF Engineering - An Educational Perspective
Polar				**EuMIC17** EuMIC Closing Session
Auditorium	**EuMC01** Advances in Passive Components and Structures		**EuMIC/EuMC02** Panel Session: On-going R&D and Industrial Projects Towards more Sustainable Microwave Engineering	**EuMC10** Special Session: Can Truly Environmentally Friendly ICT Become a Reality?
Spark	**EuMC02** Novel Antenna Solutions for Wireless Communications		**EuMC05** Special Session: Antenna Challenges and Solutions for 6G Mobile Connectivity	**EuMC11** Advancements in Active Antennas and Arrays
Flash	**EuMC03** Sub-THz Antennas, Systems, and Measurements		**EuMC06** Cryogenic Applications of RF Technologies	
Glow	**EuMC04** Advanced Interconnects and Packaging Technologies for Applications Beyond 100 GHz			
Media Arena	**EuMIC/EuMC-PP** 1-Minute Poster Pitch: EuMIC/EuMC			
Juliana CZ1			**URSI-BNL** URSI Benelux Forum	
Beatrix		**EuMW01** EuMW/EuMC Opening		
Hall 7			**EuMIC/EuMC03** EuMC/EuMIC Interactive Poster Session	**URSI-BNL Poster** URSI Benelux Forum Poster Session
Croese 1		**Exhibitor Workshop** ANSYS		
Croese 2		**Exhibitor Workshop** Dassault Systèmes		

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Room	Evening programme
Off site locations	**Automotive Forum Dinner** Location: Museum Speelklok
Off site locations	**EuMW Welcome Reception** Location: Mies Bouwman Foyer, Beatrix Theater

EuMC EuMIC EuRAD Students EuMW Exhibitors

WEDNESDAY OVERVIEW

Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Progress		**EuRAD02** Automotive Radar Data Processing 1	**EuRAD04** Automotive Radar Data Processing 2	**EuRAD06** Beamforming in Phased Array Radars
Mission 1	**EuMC12** Power Amplifier Design and Linearisation Techniques	**EuMC20** Active Circuits and Modules	**EuRAD05** Industrial and Short-Range Radar Sensing	**EuMC/EuRAD01** Special Session: Dutch Ecosystem for Defence Radar
Mission 2	**EuMC13** Special Session: Antennas for Non-Terrestrial Networks	**EuMC21** Tunable, Reconfigurable, and Acoustic-Wave Filters	**EuMC27** New Techniques for Microwave Filters	**EuMC33** Innovations in Gap Waveguide Technology
Quest	**EuMC14** Metasurfaces and Lenses	**EuMC22** Microwave Antennas with Radiation Control	**EuMC28** Antenna Arrays and Beamforming Networks I	**EuMC34** Antenna Arrays and Beamforming Networks II
Expedition	**EuMC15** Innovative Fabrication Techniques for Passive Components	**EuMC23** Printed Antennas and Lenses for Microwave and mm-Wave	**EuMC29** Advanced Resonator Technologies	**EuMC35** Bioelectromagnetic Interaction for Healthcare
Polar	**EuRAD01** EuRAD Opening	**ARFTG** ARFTG 22nd On-Wafer Forum	**13:00-14:30** Entrepreneurship in RF: Part 1	**EuMC36** MTT-S ISTP Panel Session: Photovoltaic Power Orbital Station - A Future at Reach?
Auditorium	**EuMC16** Panel Session: EE Education in Paradigm-changing Times	**DSS Forum**		
Spark	**EuMC17** Material Characterisation	**EuRAD03** Radar System Modeling and Signal Processing	**EuMC30** Advanced Linear Measurements	**EuMC37** Measurements of Active Devices
Flash	**EuMC18** mm-Wave and THz Photonics	**EuMC24** Special Session: Microwave Photonics	**EuMC31** THz Circuits and Systems	**EuMC38** Focussed Session: Trends on THz Technologies
Glow	**EuMC19** Advanced Rectification in Wireless Power Systems	**EuMC25** Wireless Sensing and Communication Technologies	**EuMC32** Modelling for Remote Sensing and Scattering	**EuMC39** Numerical Modelling
Media Arena	**EuMC-PP1** 1-Minute Poster Pitch: EuMC		**EuMC/EuRAD-PP** 1-Minute Poster Pitch: EuMC/EuRAD	
Barzone		**12:30-13:00** Entrepreneurship in RF Lunch		
Juliana CZ1	**WW-01** Innovative Semiconductor Device Architectures and Accurate Modeling for Emerging Applications			
Juliana 1	**WW-02** High Resolution Radar Technologies for Future Automotive Systems			
Juliana 2	**SW-01** Embedding Sustainability into RF Technologies			
Juliana 3	**WW-03** RF & Sub-THz Heterogeneous Integration			
Juliana 4	**WW-04** Recent Progress in Compact, Ultra-low Phase Noise Microwave-Photonic Frequency Synthesis			
Hall 7		**EuMC26** EuMC Interactive Poster Session 1		**EuMC/EuRAD02** EuMC/EuRAD Interactive Poster Session
Croese 1	**Exhibitor Workshop** ANSYS			
Croese 2	**Exhibitor Workshop** IHP			
Off site locations				**14:30-17:00** Entrepreneurship in RF: Part 2

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Room	Evening programme
Off site locations	**EuMW Experience** Location: Spoorwegmuseum

EuMC EuMIC EuRAD Students EuMW Exhibitors

THURSDAY OVERVIEW

Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Progress	**EuRAD07** Radar Networks and Activity Monitoring	**EuRAD08** Phased Array Radars	**EuRAD10** Focussed Session: Phased Array Radars for Meteorological Applications	**EuRAD13** Focussed Session: Novel Processing and Applications of Synthetic Aperture Radar
Mission 1	**EuMC/EuRAD03** Design of (MIMO) Radar Antenna Arrays	**EuRAD09** Radar-Based Target Detection and Recognition	**EuRAD11** Synthetic Aperture Radar Imaging Techniques	**EuRAD14** Distributed and MIMO Radar Systems
Mission 2			**EuMC54** Periodic Structures and Metamaterials	**EuRAD15** Waveform Diversity in Radar Detection
Quest	**EuMC40** Machine Learning and Optimization	**EuMC45** Special Session: Computational EM in the Netherlands and Belgium	**EuMC51** Multiphysics Simulation Techniques	
Expedition	**EuMC41** Integration and Reconfiguration Approaches for Non-Planar Filters	**EuMC46** Non-Planar Passive Components and Channel Filter Approaches	**EuMC52** MTT-S ISTP Panel Session: Microwaves for a Sustainable Future - Innovations and Challenges in Technology, Energy, and Resources	
Polar	**WTh-03** IEEE YP Industrial Workshop: Active Phased Arrays - Bridging Design and Measurement for Young and Industry Professionals			**EuMW03** EuMW/EuMC Closing and Awards Ceremony
Auditorium	**EuMC/EuRAD04** Special Session: Space Microwave Technology – The ESA Experience	**EuMC/EuRAD05** Recent Developments in Antenna Measurements	**EuMC53** EurAAP Special Session: Beam Forming Networks for Active Array Antennas	
Spark	**EuMC42** Reconfigurable Intelligent Surfaces	**EuMC47** Metasurfaces	**WTh-03** IEEE YP Industrial Workshop: Active Phased Arrays - Bridging Design and Measurement for Young and Industry Professionals	
Flash	**EuMC43** Sustainable Technologies for Microwave Systems	**EuMC48** mm-Wave Antenna Arrays and Applications		
Glow	**EuMC44** Microwave Sensing Techniques for Biological and Medical Systems	**EuMC49** Planar Sensors	**EuMC55** Wireless Communications and Sensing	
Media Arena	**EuMC-PP2** 1-Minute Poster Pitch: EuMC	**EuRAD-PP** 1-Minute Poster Pitch: EuRAD		
Flame Foyer		**Career Platform** Company Pitches - Polar - 11:30 to 12:30	Company Booths / Job Dating	
Juliana 1	**STh-01** Basics of Systems Engineering for the Microwave Engineering Community			
Juliana 2	**WTh-01** Automotive Radar Research Trends			
Juliana 3	**WTh-02** Multistatic/Distributed Radar Systems		**STh-02** Synchronization in Distributed Radar – Prospective and Problems	
Hall 7		**EuMC50** EuMC Interactive Poster Session 2	**EuRAD12** EuRAD Interactive Poster session	
Croese 1	**Exhibitor Workshop** ANSYS			

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Room	Evening programme
TransitZone A	**EuRAD APERIRADAR** Aperitivo
TransitZone B	**Microwave Nightfever** Time - 20:30 to 00:00

EuMC EuMIC EuRAD Students EuMW Exhibitors

FRIDAY OVERVIEW

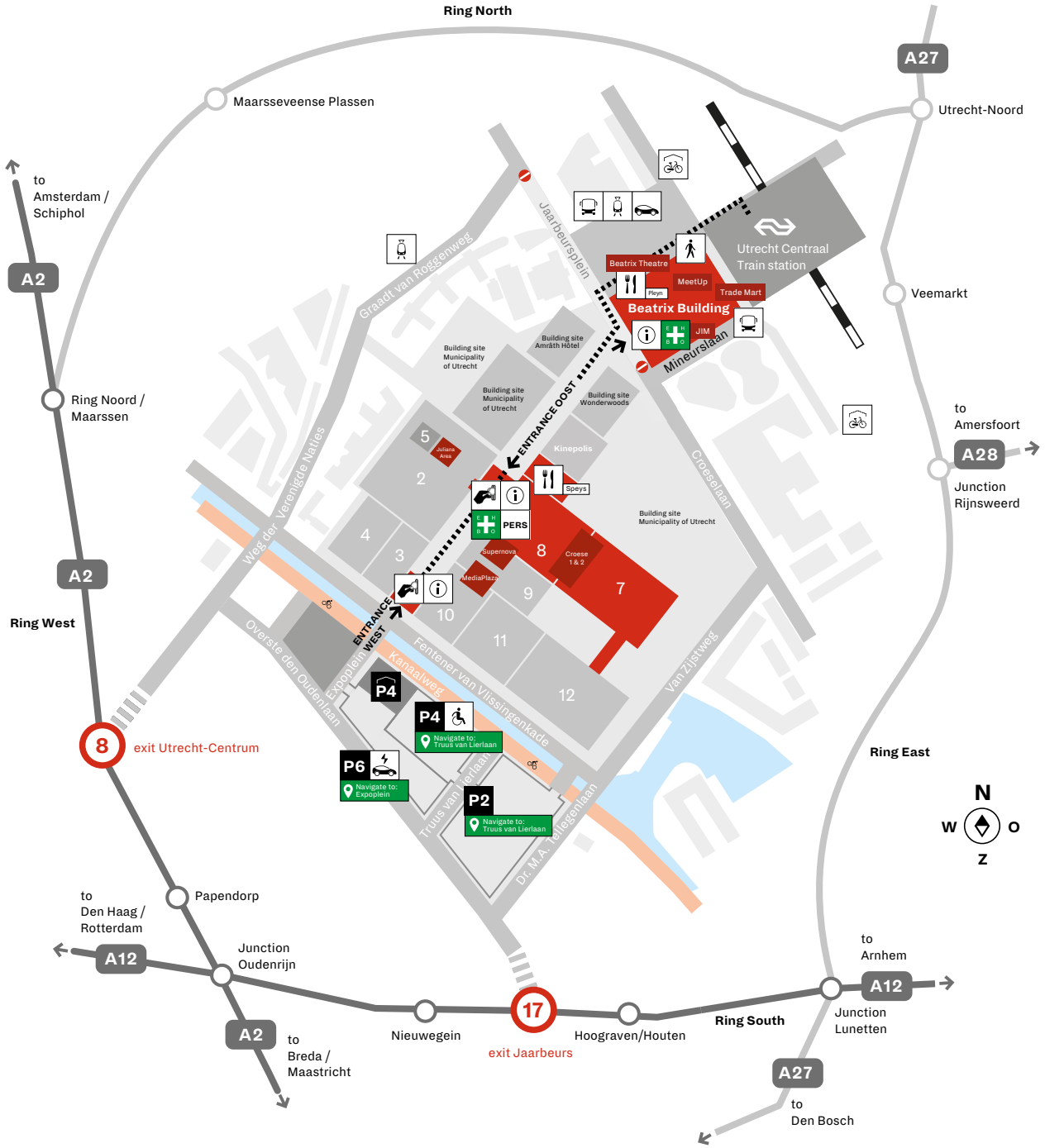
Room	08:30 – 10:10	10:50 – 12:30	13:50 – 15:30	16:10 – 17:50
Progress	**EuRAD16** Focussed Sessoin: Machine Learning in mm-Wave Radars	**EuRAD19** EuRAD Closing		
Mission 1	**EuRAD17** Signal Processing for Radar			
Mission 2	**EuRAD18** Passive Radar Systems and Array Techniques			
TransitZone A			**EuRAD Lunch**	
Juliana 1	**SF-01** Integrated Sensing and Communications: Fundamentals, State-of-the-Art and the Road Ahead			
Juliana 2	**SF-02** Nonlinear Radar: From Concepts to Applications			

Metrolines

- A. Juliana area
- B. Auditorium
- C. Polar area
- D. Supernova

Click here for map "Conference Rooms and Routes"

Venue Overview



Royal Jaarbeurs

- Taxi
- Bus
- Express Tram
- First Aid
- Restaurant
- PERS Press
- Information
- Bicycle Parking
- Charging Point
- Disabled Parking
- Pedestrian Route
- Parking Meter

Event & Exhibition Centre
Hal 1 t/m 5 en 7 t/m 12
Speys

First Floor
Juliana Area
Media Plaza
Supernova

Beatrix Building
Beatrix Theatre
Expozaal
Jaarbeurs MeetUp
Jaarbeurs Offices
Trade Mart
Pleyn
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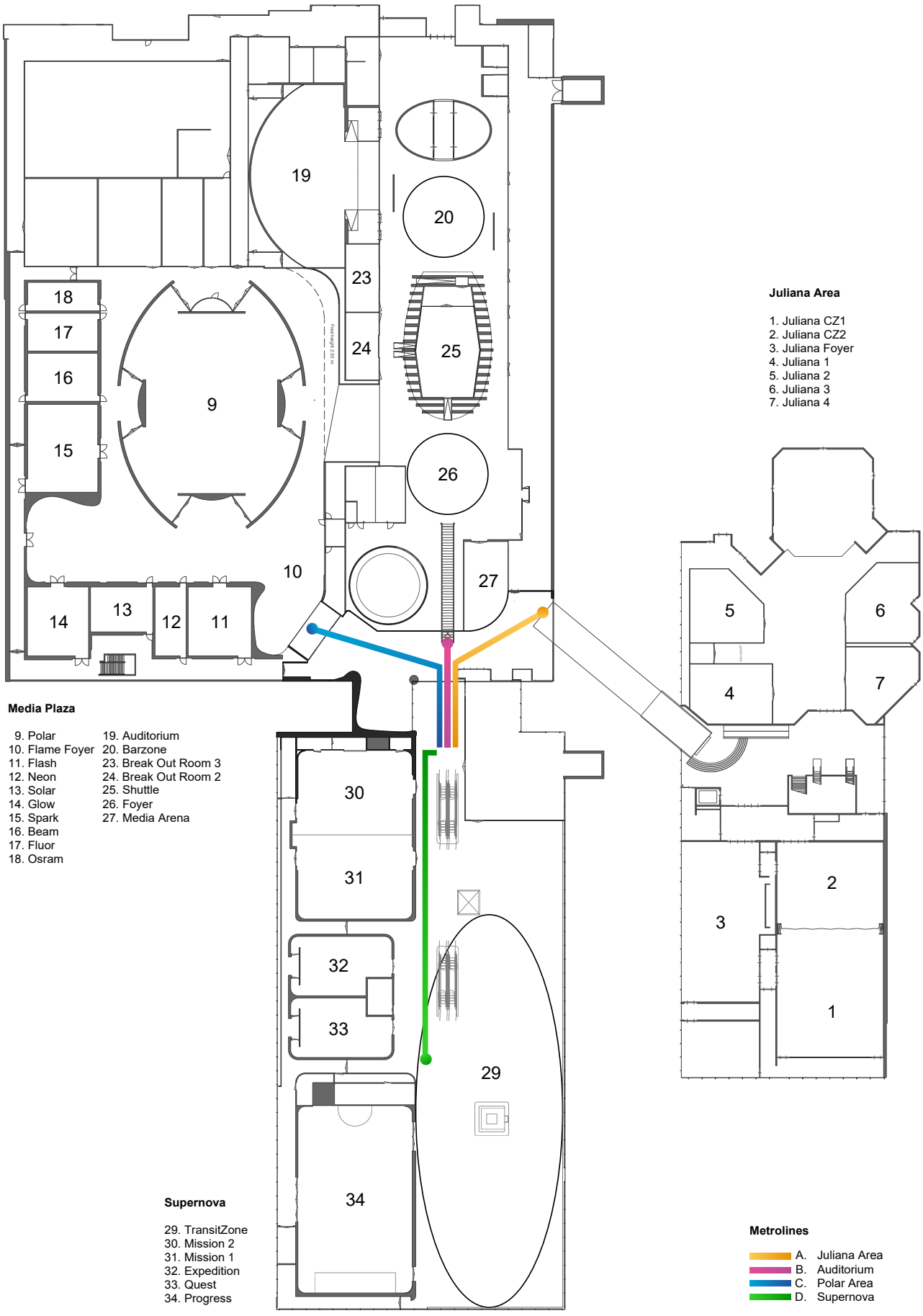
JAARBEURS

Conference Rooms and Routes



Media Plaza

9. Polar
10. Flame Foyer
11. Flash
12. Neon
13. Solar
14. Glow
15. Spark
16. Beam
17. Fluor
18. Osram
19. Auditorium
20. Barzone
23. Break Out Room 3
24. Break Out Room 2
25. Shuttle
26. Foyer
27. Media Arena

Juliana Area

1. Juliana CZ1
2. Juliana CZ2
3. Juliana Foyer
4. Juliana 1
5. Juliana 2
6. Juliana 3
7. Juliana 4

Supernova

29. TransitZone
30. Mission 2
31. Mission 1
32. Expedition
33. Quest
34. Progress

Metrolines

A. Juliana Area
B. Auditorium
C. Polar Area
D. Supernova

Exhibitor List (Stand Number)

6GEM (B128)

A Aaronia AG (B026) · ABS Technics BV (F139) · ACST GmbH (F071) · Active Technologies SRL (A103) · AdTech Ceramics (F041) · Advance RF Pte Ltd. (D084) · AGC Inc. (B124) · AGC Multi Material Europe SASU (B124) · A-INFO Inc (E114) · Alaris - The RF Technology Group (B137) · Alaris Kuhne (B137) · Alaris Linwave (B137) · ALPHA-RLH (F135) · Alter Technology Tüv Nord S.A.U. (E088) · Altum RF (B084B) · American Standard Circuits Inc. (A041) · Amphenol Microwave (C072) · Ampleon Netherlands B.V. (E076) · Ansys, part of Synopsys (D132) · AntenneX BV (E025) · Anyarc (Kunshan) Technology Co. Ltd. (E108) · Anyfields (D102) · AO Technologies (B101) · Apex Microwave Co., Ltd (B115) · Argus Space AG (B126) · Artech House (C132) · ASB Inc. (B119) · Aspocomp Group (B139) · AT Microwave (F051) · ATEK MIDAS (E072) · Auriga PIV-Tech (B068) · AVIC Forstar S&T Co.,Ltd (A072)

B Becker Nachrichtentechnik GmbH (E029) · Begin Electronics Ltd (F155) · Beijing Guoyu Microwave Technology Co., Ltd (C145) · Beijing Hwa-Tech Information System Co. Ltd. (C138) · Bits&Chips (Pub Corner 1) · Blueshift (A110) · bsw TestSystems & Consulting bv (B084A)

C Cadence Design Systems (D052) · CADFEM Germany GmbH (D132) · CAST Xi'an & HTYS Info Tech (A130) · CEMWorks (B125) · CETC Chips Technology Group Co., Ltd (A150) · Ceyear Technologies Co. Ltd. (C068) · Chengdu Bearing New Machinery Equipment Co. Ltd. (C137) · Chengdu Free-E Electronics Technology Co., Ltd (C136) · Chengdu Fuchen Business Service Co., Ltd (A152) · Chengdu Haoyi Chuangxiang Technology Co.Ltd. (A083) · Chengdu Huaxing Huiming Technology Co., Ltd (A152) · Chengdu Jiujin Technology Co. Ltd. (C149) · Chengdu Kinyea Technologies Co., LTD (B149) · Chengdu KSW Technologies Co.Ltd. (F079) · Chengdu Ponik Technology Co.,LTD (B152) · Chengdu Precision Rong Creation Technology Co.Ltd (A037) · Chengdu Ruixue Fengtai Precision Electronics Co. (D133) · Chengdu Simon Elektronika Teknologio Co. Ltd. (C120) · Chengdu Skylink Intellitech Co. Ltd. (E090) · Chengdu Wattsine Electronic Technology Co. Ltd. (D130) · Chengdu Yuexiang Technology Co. Ltd. (B146) · ChipNL Competence Centre (C089) · cicor - Reinhardt Microtech AG (E139) · CN Rood (E046) · CNRS RF-NET (F135) · Coilcraft (D112) · Comtest Engineering (B147) · Copper Mountain Technologies (B085) · CPE Italia S.P.A. (E133) · CPI TMD Technologies Ltd (E115)

D Dalian Dalicap Technology Co. Ltd (E098) · Danyang Teruilai Electronics Co. Ltd. (B111) · Dassault Systèmes (C051) · Diconex Deti (D106) · Dongshin Microwave Absorbers Co.,LTD (F075) · DP Patterning AB (B138) · dSPACE GmbH (A068)

E Electronic Specifier Ltd (Pub Corner 1) · Elekonta Marek GmbH & Co. KG (E140) · ELVA-1 OU (D073) · Elvia Electronics (E146) · EM Labs, Inc. (E033) · Eravant (A084) · ERZIA (C084) · ESJ Technology Co., Ltd (C146) · ESSETI s.r.l. (C096) · EurAAP (A115) · European Microwave Association (EuMA) (F105) · European Microwave Week 2026 (A087) · Everbeing International Corp. (D136) · everything RF (Pub Corner 2) · Exens Group (D099) · EZ Form Cable (E106)

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G Gapwaves (E095) · Genmix Technology Co., Ltd (A095A) · Gigatronix Ltd (B127) · Glenair GmbH (E054) · Global Foundries (E150) · Golden Devices GmbH (E101) · Greenray Industries, Inc (F041) · Guangzhou Geefull Metal And Plastic Products Co., (B096) · Guizhou Space Appliance Co. Ltd. (C080)

H HAROGIC Technologies (D095) · Hebei Far-East Communication System Engineering Co (F115) · HeFei HTMicrowave Technology Co. Ltd. (A076) · HengDa Microwave (D146) · hf-Praxis (Pub Corner 1) · High Frequency Electronics (Pub Corner 2) · Hongke Electronic Technology Co., Ltd (F151) · Horizon Microtechnologies (C147) · Huber + Suhner AG (F127) · HYMAG'IN (E116) · HYTEM (F111) · HzBeat (E086)

I IEEE Microwave Magazine (Pub Corner 2) · IEEE MTT-S IMS2026 (E128) · IHP GmbH-Leibniz Institute for High Performance (D080) · IHP Solutions GmbH (D080) · IMST GmbH (D138) · InCirT GmbH (D149) · INOVEOS (E142) · iNPACK (D110) · Inspower Co. Ltd. (F131)

J JFW Industries Inc. (B131) · Jiachi Electronic Technology Co., Ltd (D119) · Johanson Technology (B134) · JQL Technologies Corp. (E111) · JunCoax RF Technologies Co. Ltd. (F150) · Junkosha Inc. (F053)

K KEYCOM Corporation (F040) · Keysight (C026) · Knowledge Resources GmbH (E091) · Knowles Precision Devices (A052) · K-PA Inc. (F152) · Kunshan Shinto Electronics Technology Co.,LTD (A091) · KVG Quartz Crystal Technology GmbH (E105) · KYOCERA AVX Components Ltd (A104)

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Q QORVO (C046) · Qotana Technologies Co. Ltd. (D127) · QP Technologies (F102) · QRT Inc. (C140) · Quadsat (F153) · Qualwave Inc. (A081) · Quantic Electronics (D139) · QuantumTec GmbH (E152) · QuantumZ Inc. (F085) · QuSinus GmbH (B103)

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