Stimulating and co-ordinating, on an international basis, studies, research, applications, scientific exchange, and communication in the fields of radio science

URSI Newsletter – 2025/Q4

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Welcome

URSI AP-RASC 2025 was held last August, just a few days after our previous newsletter. At that time, we already reported on the record-breaking number of papers and participants, but now we can look back at this very successful Flagship meeting. Participants enjoyed the very interesting and very extensive technical programme, as well as the many occasions for networking during poster sessions, coffee and lunch breaks. Social events offered extra opportunities to engage with your peers in a more relaxed environment.

If you could not attend AP-RASC in Sydney, you can watch the General Lecturers which are available on our YouTube channel as well as some of the sessions from Commission J, which were recorded as a test.

Our thanks go out to all of you who participated and made efforts to bring such a high-standing set of technical presentations.

As usual we also report on the activities of our URSI Member Committees and local WIRS (Women in Radio Science) chapters together with reports on events which received financial support from URSI.

Make sure to continue to follow URSI on social media channels as this is the fastest way to spread news in our community.

We remain at your service, and please feel free to contact us or to submit material which you might think to be interesting to publish here.

URSI Flagship Meetings

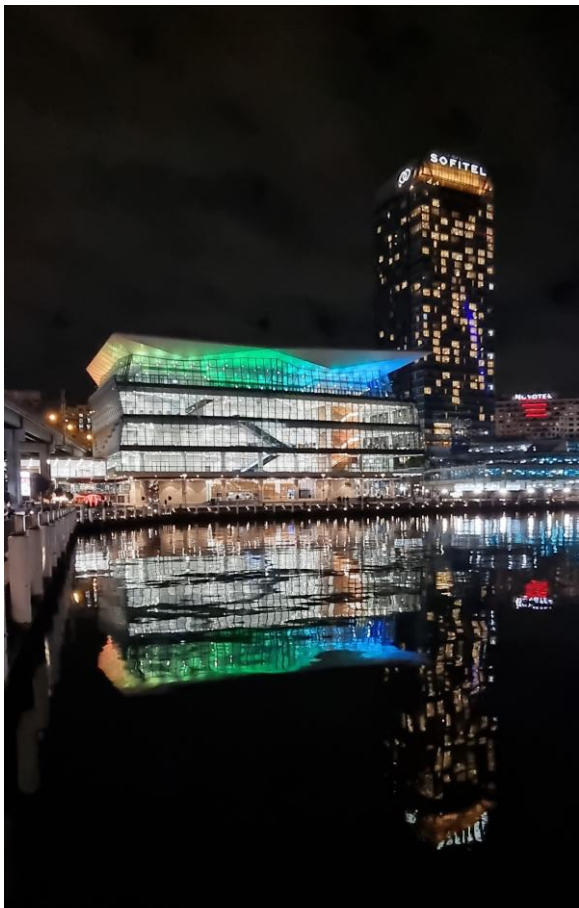
7th URSI Asia-Pacific Radio Science Conference (URSI AP-RASC)

The AP-RASC 2025 final numbers, illustrating the record edition:

- 651 participants originating from 41 countries.
- 927 submitted papers
- 591 oral presentations
- 77 poster presentations
- 5 General Lectures
- 10 Commission Tutorials
- 532 speakers

Special events:

- Women in Radio Science (incl. reception)
- Student Paper Competition (10 finalists)
- URSI-ITU Session
- Workshop on Disaster Risk Reduction and Management
- URSI Radio Science School for Young Scientists



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Clockwise from top left:

- Welcome Reception
- WIRS (Women in Radio Science) social event
- Young Scientist Party with 26 selected awardees out of 109 applicants.

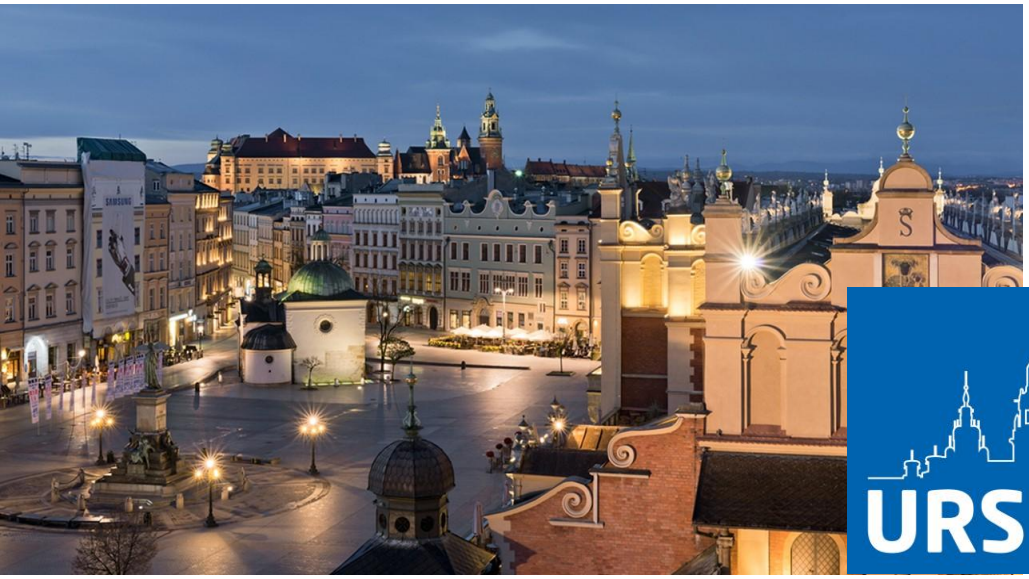
Proceedings of AP-RASC 2025 are available on our URSI website in different formats:

- Based on the programme booklet
- Arranged, by author, session, Commission, room or timeslot.

XXXVIth URSI General Assembly and Scientific Symposium (URSI GASS 2026)

The next URSI Flagship meeting is our XXXVIth General Assembly.

The conference will be held from 15 till 22 August 2026 in the ICE - International Congress Centre in Kraków, Poland.



Paper submission is now open!

Please check details on the paper submission page

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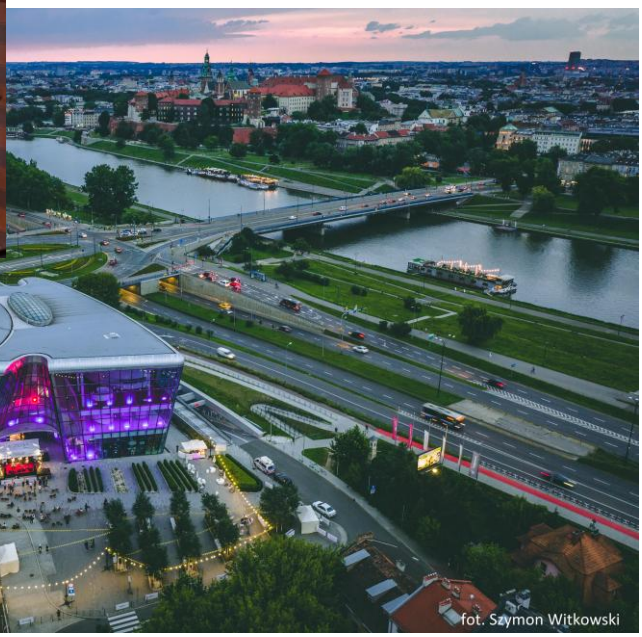
The website is now live and offers the most up-to-date information, especially outlining how to submit your paper. It also details all session topics for the 10 URSI Commissions. With over 200 session topics available, you're sure to find a session that fits your research perfectly.



As with all our URSI Flagship Meetings we will also run a Young Scientists Programme which, if awarded, provides financial support for attending the URSI GASS. The US National Committee also runs a Student Paper Competition at the GASS 2026. More details on both the Young Scientists Awards and the Student Paper Competition can be found on the website. Please pay attention to the changed requirements and procedures.

Important Dates:

- Paper submission site opened: 12 November 2025
- Paper submission deadline: 25 January 2026
- Notification of acceptance: 15 March 2026

We look forward to welcoming you in Kraków, Poland in 2026 for the XXXVIth URSI General Assembly and Scientific Symposium (URSI GASS 2026).

Hosted and organized by	**Polish National Committee of URSI**	URSI, PAN Polish Academy of Sciences
Honorary Patronage	Minister Cyfryzacji	
Supported by	MIKON Microwave and Radiolocation Foundation; IEEE Poland Section; MTT-S IEEE Microwave Theory & Technology Society; IEEE AP-S Antennas and Propagation Society	

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URSI Member Committee Activities

URSI Member Committee – Belgium & URSI Member Committee – The Netherlands

URSI Benelux forum 2025, 23 September 2025, Jaarbeurs Utrecht, Utrecht, The Netherlands

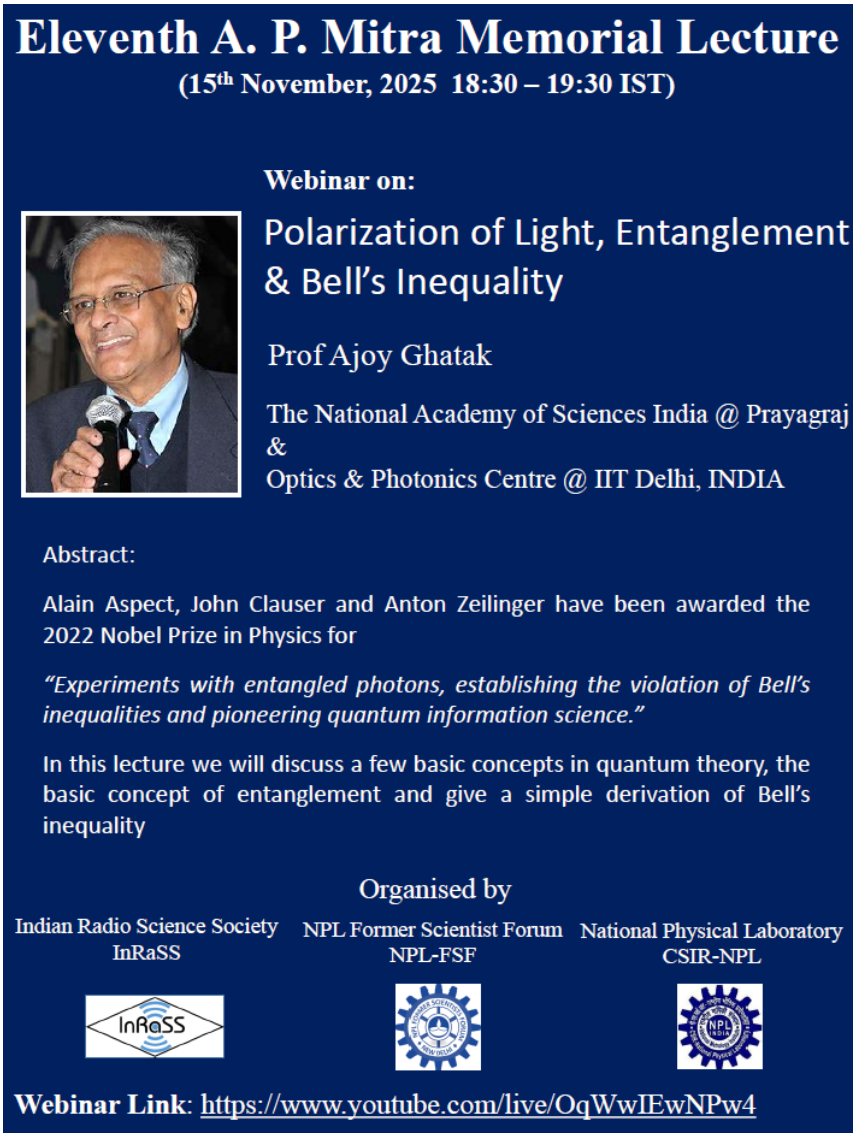
"Progressing science and society with radio waves"

The 30th URSI Benelux Forum, held alongside the European Microwave Week (EuMW), is offering a meeting opportunity to PhD and postdoctoral researchers in the different scientific fields covered by URSI (International Union of Radio Science – Union Radioscientifique Internationale). The meeting offers them and the academic and scientific staff of universities and institutes a unique opportunity to be informed about the different research programmes in radio science in the Benelux. Being organised in the same venue as the EuMW, URSI Benelux Forum participants are also welcomed to the opening ceremony of the European Microwave Conference and visit the EuMW exhibition area.

(Communicated by: Prof. Stefan Wijnholds)

URSI Member Committee – India

The 11th AP Mitra Memorial Lecture will be held on 15 November 2025. Prof. Ajoy Ghatak, 2022 Noble Prize Winner for Physics, will be the speaker for the webinar on "Polarization of Light, Entanglement & Bell's Inequality" which can be followed live 1:00 PM – 2:00 PM UTC The webinar will also be available afterwards via the URSI Channel on YouTube.



Meetings with financial support by URSI Commissions

Mathematics for Signal Processing and Applications in Geophysics and other fields (MaSAG25)

9-14 June 2025, L'Aquila Italy

The International Summer School and Conference, Mathematics for Signal Processing and Applications in Geophysics and other fields (MaSAG25), successfully took place in L'Aquila, Italy, from 9 to 14 June. Building on the success of the previous editions, MaSAG21 and MaSAG23, the event provided a crucial platform for researchers at the intersection of applied mathematics and geophysics, with a particular emphasis on the latest developments relevant to Radio Sciences.

The event kicked off with a three-day Summer School, dedicated to bringing cutting-edge knowledge about non-linear data analysis tools for signal processing to the next generation of researchers. Three intensive, 8-hour courses were led by renowned international experts: David Anderson (Georgia Institute of Technology, GA, USA), Hans G. Feichtinger (University of Vienna, Austria), Xue-Cheng Tai (NORCE, Norwegian Research Centre). The courses covered modern signal processing tools such as Synchrosqueezing Wavelet Transform, Empirical Mode Decomposition, Fast Iterative Filtering, as well as deep learning techniques. The school was well-attended by 24 students (18 in-person, 6 remote), providing them with foundational research skills and the opportunity to present their findings during the subsequent conference.

The event culminated in a three-day Conference that provided a dynamic forum for interaction between young researchers and 30 internationally renowned speakers. The conference talks spanned a broad spectrum of topics, covering both the development of novel signal processing techniques and their applications in geophysics and other applied fields. Key areas discussed included: Inverse problems, such as identifying the number of active sub-signals; Separation methods for multicomponent nonstationary signals; Big data analysis using Machine Learning and Deep Learning approaches, with speakers highlighting emerging methodologies like conformal prediction and transformer neural networks for time series modelling and development and analysis of multivariate and multidimensional data analysis techniques.

The event saw a total attendance of about 70 people. The esteemed list of speakers included:

- Stefaan Poedts (Katholieke Universiteit Leuven, Belgium)
- Monika Dorfler (University of Vienna, Austria)
- Andrea Morelli (Istituto Nazionale di Geofisica e Vulcanologia, Italy)
- Anton Kast (Google, USA)
- Serena Morigi (University of Bologna, Italy)
- Karim Meziane (University of New Brunswick, Canada)
- Vittoria Bruni (La Sapienza, Italy)
- Paolo Canofari (Università Politecnica delle Marche, Italy)
- as well as the three faculty members of the school's courses.

The unique novelty of the MaSAG series lies in its interdisciplinary approach at the intersection of Mathematics, Geophysics, Radio Sciences and other fields. The event furthered its goals of fostering international collaboration and supporting talented researchers from disadvantaged backgrounds through financial aid.

The success of MaSAG25 reinforces the need for advanced data analysis techniques for nonlinear and nonstationary datasets, which are crucial for identifying physical phenomena undetectable using conventional methods. Given the strong participation and positive feedback, plans are underway for a future edition to continue this vital scientific exchange. The event got technical and financial support from URSI Commissions G and F, and technical support from Commissions H and J.

(Communicated by Luca Spogli and Antonio Cicone)

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25th URSI International Symposium on Electromagnetic Theory (URSI EMTS 2025) 23-27 June 2025, Bologna, Italy

General organization and social initiatives

The URSI International Symposium on Electromagnetic Theory (URSI EMTS 2025) was held 23-27 June 2025, in Bologna, Italy. Organized by the Commission B (Fields and Waves) of URSI and the Alma Mater Studiorum - University of Bologna, EMTS 2025 was the 25th event in this prestigious triennial series (www.emts2025.it)

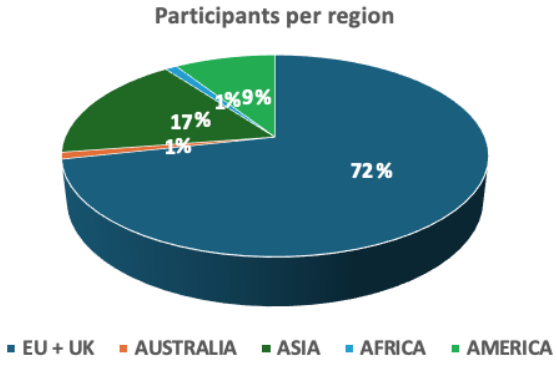
The organizing committee of the event was composed as described below:

- Prof. Vittorio Degli Esposti (General Chair)
- Dr. Henrik Wallén (Technical Program Chair)
- Prof. Ludger Klinkenbusch (Young Scientist Program Chair)
- Prof. Diego Masotti (Vice Chair and Finance Chair)
- Prof. Marina Barbiroli (Local Organizing Committee Chair)
- Prof. Andrea Michel (Social Media Chair)
- Mr. Tommaso Tiberi (Social Media Staff)
- Prof. Enrico Maria Vitucci (Publication Chair)
- Ms. Inge Lievens (Publication Co-Chair)
- Prof. Giuliano Manara (Secretary Italian CNR-URSI Committee)

Aula B of the Belmeloro Complex during the plenary talk by Prof. Weng Cho Chew

The event was enriched with a School for Young Scientists on the first day and co-located with the Italian URSI Committee Meeting.

The conference venue was the "Belmeloro Complex" (Complesso Belmeloro) of the Alma Mater Studiorum University of Bologna with 5 rooms for parallel sessions. The registration fee included coffee breaks and buffet lunches featuring typical Italian specialties each day.



The number of registered participants was 185 plus a smaller number of volunteers and non-registered participants, for a total of 200-210 people. About 60 of them were registered as students.

The event was sponsored by nine organizations, including platinum (Exemplar, Huawei), gold (Rohde&Scwharz, SensorID, JMA), and silver (MTA Antenne, Telebit, Pasquali Microwave Group) sponsors, as well as the IEEE Antennas & Propagation Society.

The social activities included an exclusive classical music concert held in the beautiful Aula Absidale of S. Lucia, followed by an Award Dinner hosted in the beautiful premises of Palazzo Isolani, a historic 15th-century palace located in the heart of Bologna with richly decorated interiors. At the end of the dinner, the award ceremony took place in the ancient

courtyard of the palace. A visit to the Marconi Museum located in the premises of the G. Marconi Foundation, Villa Griffone on the outskirts of Bologna, was also organized as a side-event.

There was one daily plenary lecture from Tuesday to Friday:

- Dr. Ulrich Jacobus on "Evolution of Computational Electromagnetics, Review of the State of the Art and Future Prospects"
- Prof. Weng Cho Chew on "Deriving Quantum EM Solutions Using Classical Knowledge—An Overview"
- Dr. Olav Breinbjerg on "High-Accuracy Satellite Antenna Testing employing the Spherical Near-Field Measurement Technique"
- Prof. Micaela Liberti on "Frontiers in Bioelectromagnetic Research: Simulations, Experimental activity and Applications".

Unfortunately, the recording of Prof. Chew's plenary lecture failed for technical reasons, but the other three were successfully recorded and published via the URSI YouTube channel.

The full proceedings from the conference were published on the URSI webpage within a month after the conference and the papers eligible for publication in IEEE Xplore should also be online by the time this report is published in the URSI Newsletter. Authors of extended abstracts were encouraged to publish extended papers (4-page letters) in URSI Radio Science Letters with reduced page charges.

Young Scientists Program

During the URSI EMTS 2025, a vibrant program has been organized for the young students and researchers including those who received a Young Scientist Award (YSA). The 20 awardees, selected by an international committee of highly regarded experts on the basis of their paper, curriculum vitae, and published papers out of a total number of 43 applicants, received free registration to the conference and to the URSI Commission B School for Young Scientists as well as a prize money of 500 euro as a substitute to travel and living expenses.

On Monday 23 June, the sixth edition of the URSI Commission B School for Young Scientists was organized, sponsored jointly by URSI Commission B and the EMTS 2025 Local Organizing Committee. The title of the school was "Propagation for Next Generation Systems - from EM basic to THz communications", and it offered a short, intensive course with lectures delivered by leading scientists in the Commission B community: Prof. Conor Brennan (Fundamentals of electromagnetic propagation), Prof. Franco Fuschini (Geometrical theory of radio propagation) and Prof. Thomas Kürner (Experimental investigation of radio propagation).

Furthermore, on 24 June 2025, the first edition of the "Industry Meets Young Scientists" session took place. It is a new format to connect industry with young scientists, i.e., Master's, PhD students, and PostDocs working in the field of electromagnetics. During the session, each of the five Platinum and Gold sponsors (Exemplar, Huawei, JMA, Rohde & Schwarz, SensorID) presented their company and showed how the up-and-coming electromagnetics experts could contribute to their activities. It was a great opportunity to connect the world of industry with scientific research on Radio Sciences. It clearly showed how theory and research can play a key role in driving technological development and innovation.

All papers selected for the EMTS Young Scientist Award were subject to further evaluation for the Young Scientist Best Paper Awards. Each Young Scientist applicant presented his/her paper in a regular session and in addition in a special YSA Poster Session on 24 June 2025. Based on the papers and on the poster presentations, the YS Program Committee selected three winners who received a corresponding Certificate and an additional prize money of 1500 €, 1000 € and 750 €.

- 1st prize: Henry Clément "Laplacian Surrogate of the EFIE based on Differential Forms: Application to Preconditioning"
- 2nd prize: Federico Giusti "Theoretical Characterization of Scattered Floquet Modes in the Canonical Problem of Anomalous Reflection"
- 3rd prize: Ross Glenn MacDonald "Electromagnetic wave-based solutions to partial differential equations using networks of waveguide-based metatronic T-circuits"

A picture of all the Young Scientist Awardees is shown above.

(Communicated by: Profs. Vittorio Degli Esposti, Marina Barbiroli, Henrik Wallén, Ludger Klinkenbusch, Giuliano Manara, Andrea Michel)

ICEAA–IEEE APWC 2025: A Joint Success in Electromagnetics and Wireless Communications

8-12 September 2025, Palermo, Italy

The 26th International Conference on Electromagnetics in Advanced Applications (ICEAA) and the 14th IEEE Antennas and Propagation Wireless Communications Conference (APWC) were jointly held in Palermo, Italy, from 8 to 12 September 2025. The event was organized by Politecnico di Torino in cooperation with Università di Palermo and cosponsored by the IEEE Antennas and Propagation Society and URSI.

This year's edition featured two plenary lectures by Prof. Paul Cannon (University of Birmingham, UK) (photo at left) and Prof. Francesco Andriulli (Politecnico di Torino, Italy), (photo at right) along with three short courses by Prof. Mahta Moghaddam (USC), Prof. Atef Elsherbeni (Colorado School of Mines), and Dr. C.J. Reddy (Altair Engineering). All courses were offered free of charge to registered delegates.

Out of 724 submissions, approximately 500 papers were accepted, forming 60 sessions—41 of which were special sessions organized by leading experts. ICEAA papers accounted for 84% of the program, IEEE APWC for 16%, a distribution consistent since 2011. Over 45 countries were represented, with the highest number of papers from the USA (18%), followed by Italy (12%), Germany, China, and Japan. Authors came predominantly from Europe (46%), Asia (26%), the Americas (23%), Africa (3%), and Oceania (2%).

The ICEAA Award (est. 2009) and the Industrial Engineering Paper Award (est. 2019) recognized outstanding contributions in electromagnetics and applied engineering. Finalists presented posters during dedicated sessions, and winners were announced at the conference banquet held on 9 September 2025 at Villa Chiaramonte Bordonaro.

All accepted papers were included in the proceedings and submitted to IEEE Xplore. The Organizing and Scientific Committees extend their gratitude to all contributors, reviewers, and participants for making this edition a continued success.

The next joint edition will take place in Toyama, Japan, from 14 to 18 September 2026. The Local Organizing Committee will be chaired by Prof. Kazuya Kobayashi of Chuo University (Japan). For inquiries, please contact kazuya_k@sea.plala.or.jp. For preliminary details, visit the official website: https://www.iceaa-offshore.org

International Conference on Medical Microwave Imaging Applications

3 – 5 February 2026, Lisbon, Portugal

The International Conference on Medical Microwave Imaging Applications (ICMWIA) aims to bring together experts in the Medical Microwave Imaging (MMWI) field and will include invited talks, presentations and posters of peer-reviewed abstracts and conference papers, and workshops in satellite areas of research that are of interest to MMWI research.

This conference is being organised under the project 3B Atwin, funded by the European Union.

The main topics of the conference are: dielectric characterisation of biological tissues, microwave imaging, tissue mimicking materials, phantom development, antenna development.

Important dates:

- Paper submission deadline: 21 September 2025
- Notification for paper acceptance/rejection: 16 November 2025
- Final version deadline: 14 December 2025
- Registration opens: 17 November 2025
- Author registration deadline:4 January 2026
- Conference: 3-5 February 2026

ISEA17 - 17th International Symposium on Equatorial Aeronomy

9-13 February 2026, Liberia, Costa Rica

The International Symposium on Equatorial Aeronomy (ISEA) is held once in every three to four years. Researchers from the fields of atmosphere, ionosphere and magnetosphere science come together in ISEA to share new results, discuss the current state-of-the-art, and identify promising topics for future research. The 17th International Symposium on Equatorial Aeronomy will be held in Liberia, Costa Rica from 9 to 13 February 2026.

We will be sharing regular updates regarding programme, registration, venue, and other pertinent information related to ISEA 17 at this webpage.

ISEA17 will be followed by the United Nations/Costa Rica Workshop on Machine Learning applied to Space Weather and Global Navigation Satellite Systems in San José, Costa Rica between 16-20 February 2026. More information on this webpage.

URSI WIRS – Women in Radio Science

WIRS Egypt Chapter: Egyptian Women Making Waves in Radio Science

A Focus on Egyptian Achievements, Progress, and Future Directions

Introduction

In a field historically dominated by men, Egyptian women are increasingly making their mark in radio science. Initially present as attentive observers, they have now emerged as central contributors to research, innovation, and leadership across the discipline. The Women in Radio Science (WIRS) Egypt Chapter, has become a beacon of progress, empowerment, and excellence. Since its pioneering session at the National Radio Science Committee (NRSC) 2019, WIRS has grown into a dynamic platform for celebrating achievements, mentoring young researchers, and advocating gender equity in science. The chapter has held impactful sessions alongside the NRSC conferences in 2019, 2023, and 2024, creating a space where women can share their challenges, successes, and aspirations.

Globally, URSI continues to champion gender equity by supporting WIRS chapters and initiatives that elevate the role of women in radio science. This 5th WIRS session, held alongside NRSC 2025, was a landmark event that reflected the growing strength and visibility of women in radio science in Egypt. To further empower and recognize women in the field, the Egyptian WIRS Chapter launched the WIRS Award for outstanding MSc and PhD theses or dissertations authored by women in radio science. This award was supported by URSI. Now in its second round, associated with NRSC 2025, the award goes beyond ranking academic work—it celebrates the creativity, resilience, and unique contributions of each candidate. The judging process emphasizes diverse perspectives, and criteria.

Honouring Supporters of Women in Radio Science

WIRS Egypt Chapter, took a meaningful moment during the NRSC2025 conference to express its heartfelt gratitude to key supporters of women's advancement in science. A Shield of Appreciation was presented to Prof. Gina El Feky, President of Egypt's Academy of Scientific Research & Technology (ASRT) in recognition of her unwavering advocacy and consistent support for women's activities in the scientific community. Additionally, the chapter honoured Prof. Ari Sihvola, President of URSI, for his significant and ongoing support of WIRS chapters worldwide, acknowledging his role in promoting gender equity across the global radio science landscape.

(Communicated by Prof. Rowayda Sadek and Prof. Hadia Elhenawy)

WIRS China CIE Chapter

URSI-WIRS China hosted a forum during the 19th China National Symposium on Radio Propagation (CNSRP).

As a highly authoritative and influential academic event in China's radio wave propagation field, the China National Symposium on Radio Propagation (CNSRP) – initiated and hosted by the Radio Propagation Branch of the China Institute of Electronics – has long focused on cutting-edge industry trends and built high-end academic exchange platforms. It has garnered strong attention and support from academicians of the Chinese Academy of Sciences and Chinese Academy of Engineering, renowned professors, and experts from research institutions. From 15 to 18 October 2025, the 19th CNSRP (CNSRP 2025) was successfully held in Xi'an, a famous historical and cultural city. Co-hosted by the Radio Propagation Branch of the China Institute of Electronics and Xidian University, this year's symposium centred on the core theme of "Innovating Radio Wave Technology to Empower the Digital Future," attracting over 500 representatives from more than 70 universities, 30 research institutes, and 20 enterprises across China.

Among its highlights, the "Radio Wave Propagation Young Female Scientists Forum" – a core session of the symposium – was successfully held in Conference Room 103 of the Cybersecurity Innovation Research Building at Xidian University on 17 October. Supported by a €500 grant from URSI, the forum, themed "AI Empowers Radio Waves, Radio Waves Connect Us All," brought together top young female scientists in the field. It not only provided a professional

platform for young female scientists to exchange ideas and share experiences but also marked a significant milestone in advancing academic innovation in radio wave propagation and improving the research support system for young female scientists.

Cutting-Edge Reports Pave the Way for Technological Innovation

Kicking off the forum, a member of Professor Ying Liu's team from the National Key Laboratory of Radar Detection and Sensing at Xidian University delivered an academic report titled "Design Optimization of Multi-Mode and Multi-Port Antennas and Their Applications in Radio Wave Propagation." Notably, Professor Ying Liu herself has been elected to the Administrative Committee of the IEEE Antennas and Propagation Society (IEEE AP-S) – a first for a scholar from China CIE since the society's founding in 1949. She is also the only member selected from the Asia-Pacific region (IEEE Region 10) for this term, which runs from 1 January 2026, to 31 December 2028.

In the report, the team member systematically presented Xidian University's core technological breakthroughs in miniaturization, wideband design, and anti-interference performance enhancement of multi-mode and multi-port antennas, as well as the latest findings in research on the coupling mechanism between antennas and radio wave propagation. They conducted an in-depth analysis of the signal transmission characteristics of multi-mode and multi-port antennas in complex electromagnetic environments, providing valuable theoretical references and practical guidance for on-site researchers to conduct related technical studies and further driving innovation in key technologies in the radio wave propagation field.

Global Perspective Empowers, Showcasing the Strength of Chinese Young Female Scientists

After the report session, Co-Chair of the forum, Researcher Haiyang Fu from the School of Future Information Innovation at Fudan University, acting as both organizer and moderator, reviewed the work progress and 2026 plans of the Chinese Women Scientists Working Committee within the International Union of Radio Science (URSI). She highlighted that since the official approval and establishment of the URSI China Women Scientists Organization (URSI-CIE, WIRS China) in February 2023, the organization has adhered to the mission of "uniting female scientific research forces and promoting international academic exchanges." It has formed a core committee of 13 senior experts in the field and built a communication community covering 63 young female scientists.

In terms of international cooperation, the organization has successfully participated in and hosted 4 special forums on "Women and Radio Wave Propagation" at top international conferences such as ISAPE and URSI Flagship meetings. It has also recommended Chinese female scientists to deliver plenary reports on behalf of China at URSI Asia-Pacific Conferences, supported young Chinese female scientists in applying for the URSI Young Scientists Program, and helped showcase the achievements of female research teams on international platforms. Additionally, the forum discussed and proposed the feasibility of the URSI WIRS Female PhD Fellowship Program, offering more support channels for the growth of young female scientists. These efforts have not only opened a "green channel" for international academic exchanges for young Chinese female scientists but also demonstrated their research capabilities and innovative vitality in the radio wave propagation field to the world, laying a solid foundation for enhancing China's voice in international radio science.

In-Depth Roundtable Dialogue: Decoding the "Growth Code" for Young Female Scientists

The forum then moved to a roundtable discussion, where four outstanding young female scientists from different research fields engaged in in-depth conversations around "Persisting in Scientific Research and Women's Development," offering valuable insights for on-site young researchers.

Professor Juan Chen from the School of Electronic Science and Technology at Xi'an Jiaotong University shared her challenges and perseverance in scientific research based on her personal experience. She mentioned that she faced significant pressure during her research transition around the age of 40, grappling with both assessment stress and self-doubt. However, her "never-give-up" attitude and the university's supportive policies for young female scientists encouraged her to continue her in-depth research in radio wave propagation channel modelling. She also called on the industry to establish a more inclusive evaluation system – one that fully accounts for women's additional responsibilities in family care and social roles and provides flexibility in project application cycles and talent evaluation criteria to create a "stress-relieving and empowering" environment for young female scientists.

Four Female Chinse researchers share work experience. From Left to Right (Hongmei Zhao, Editor of Chinese Radio Wave Propagation; Prof. Yiwen WEI, Xidian University; Prof. Yufang Tian, Chinse Academy of Science and Prof. Juan Liu, Xian Jiaotong University)

Senior Engineer Yufang Tian from the Institute of Atmospheric Physics, Chinese Academy of Sciences, shared her deep connection with the Meridian Project from the perspective of "responsibility and inheritance." During her doctoral studies, she engaged in algorithm development, data quality control, and scientific research for the MST radar – a large-scale radio monitoring device for the first phase of the Meridian Project. During her postdoctoral period, to meet practical engineering needs, she proactively shifted her focus from theoretical research to engineering and technological breakthroughs. Over six years, she led the design, development, and construction of a new generation of fully digital multi-polarization phased array MST radar in the Qinghai-Tibet Plateau. "When my supervisor, Academician Daren Lü, entrusted me with this important task, the trust and responsibility drove me to overcome all difficulties and move forward without hesitation," she said. Her sharing not only demonstrated the resilience and commitment of young female scientists in engineering practice but also conveyed the original aspiration of "aligning with national needs" in scientific research, setting an example of "integrating theory with practice and science with technology" for young researchers.

Professor Yiwen Wei from the School of Physics at Xidian University shared her transformation from a "game enthusiast" to a "dedicated researcher," focusing on the "joy of scientific research." She admitted that she once enjoyed the short-lived pleasure of playing games, but under the strict guidance of her supervisor, Professor Lixin Guo – who "treats everyone equally regardless of gender" – she gradually discovered the long-lasting satisfaction of solving scientific research problems. She has specialized in the propagation and scattering characteristics of electromagnetic waves in complex land-sea environments, and her research results have been applied to

electromagnetic characteristic simulation and prediction systems in multiple research institutes under China Aerospace Science and Technology Corporation, China Aerospace Science and Industry Corporation, China Electronics Technology Group Corporation, and China North Industries Group Corporation. The sense of accomplishment from "serving the country through science and technology" is incomparable to mere entertainment. Her appeal for "fairness in the process and inclusiveness in outcomes" – adhering to unified technical standards in research evaluation while giving appropriate preference to young female scientists in resource allocation and promotion opportunities – was widely recognized by the audience.

Hongmei Zhao, Director of the Editorial Department of Journal of Radio Science, though not directly engaged in frontline scientific research, contributed her insights to the development of women in scientific research from the perspective of an "academic service provider." She stated, "My work's value lies in building a bridge for young female scientists to disseminate their academic achievements, ensuring more excellent research is seen and recognized." Her sharing made the participants realize that building a sound ecosystem for women in scientific research requires not only the efforts of researchers but also the collaboration of journal platforms, academic services, and other stakeholders. Every effort in different roles injects indispensable momentum into advancing women's scientific research careers.

Experts Offer Insights to Build a Support System for Young Female Scientists

In the final open discussion session, senior experts in the field put forward constructive suggestions to address the pain points in the development of young female scientists, providing guidance for improving the support system.

Professor Lixin Guo from Xidian University clearly stated that, in response to the forum's appeals, he would carefully consider adding women-specific provisions to talent evaluation criteria. Specifically, in professional title reviews, the requirement for the number of papers would be appropriately relaxed for young female scientists with significant family responsibilities, with greater emphasis placed on the quality of their achievements and their contributions to the industry.

Professor Qingsheng Zeng from the School of Electronic Information Engineering at Nanjing University of Aeronautics and Astronautics offered suggestions from the perspective of optimizing the evaluation mechanism: "Support for young female scientists should not mean 'lowering standards,' but rather 'targeted empowerment.'" He advocated that for high-intensity tasks such as physically demanding work or frequent business trips, requirements for young female scientists could be appropriately adjusted. In outcome evaluation, unified standards should be maintained for both male and female researchers to ensure fairness. Through this "inclusive process and fair outcome" mechanism, the rights and interests of young female scientists are protected, and their innovative potential is fully stimulated.

Authoritative Recognition Highlights the Forum's Industry Value

At the forum's conclusion, Director Jian Wu of the 22nd Research Institute of China Electronics Technology Group Corporation highly praised the forum's achievements. He noted that among global URSI women's forums, activities in China and Northern Europe have become benchmarks due to their "focused themes and practical outcomes." During the URSI Conference held in Sydney in May 2025, the Secretary-General of the International Union of Radio Science specifically mentioned the achievements of China's WIRS-China, recognizing it as a "Chinese solution" for the development of global women's scientific research organizations. "This forum is not only an academic exchange but also a gathering of

Supporters for women in radio science in China. From Left to Right (Qingsheng Zeng, Nanjing University of Aeronautics and Astronautics; Lixin Guo, Xidian University; Jian Wu, President of URSI-CIE)

young female scientists' research strength," Director Wu emphasized. The concepts of "inclusiveness, innovation, and responsibility" conveyed by the forum will further promote the formation of a sound ecosystem that "values and supports women" in the radio wave propagation field.

As a landmark event of the 19th China National Symposium on Radio Propagation (CNSRP 2025), the successful holding of this Young Female Scientists Forum holds three key significances:

- First, it built a "platform for showcasing young female scientists' research achievements" in the radio wave propagation field, promoting the exchange of technological innovation.
- Second, it established a "support network for experience sharing and resource connection" for young female scientists, helping them address practical challenges in research and daily life.
- Third, it provided practical references for the industry to improve the "support system for young female scientists," advancing the development of a more inclusive academic ecosystem.

Looking ahead, with the continued efforts of organizations such as URSI-CIE (WIRS China), young Chinese female scientists will shine more brightly in the radio wave propagation field and contribute greater "her power" to China's journey toward becoming a global scientific and technological power.

(communicated by Prof. Haiyang Fu)

WIRS Chapter Spain

The 40th Spanish URSI Symposium, held from September 3rd to 5th, 2025, in Tarragona, offered an excellent opportunity to highlight the growing impact of the Spanish Chapter of Women in Radio Science (WIRS). Now in its second year of activity, the Chapter organized a special session to present its recent achievements and upcoming initiatives. The session was moderated by Elena Abdo Sánchez (Co-Chair) and Rocío Sánchez Montero (Secretary).

They opened with a presentation on the vision and objectives of the Chapter, emphasizing its commitment to promoting gender equality and visibility for women in radio science. They also shared gender participation statistics from the last three National Symposia, examining women's presence in the Organizing and Scientific Committees, among reviewers, as session chairs, and as first authors of accepted papers. The results revealed a persistent gender gap, with women representing, at best, around 20% of first authors among finalists for the URSI Young Scientist Award.

The session continued with a summary of the activities carried out during the past year, including a memorable webinar featuring Prof. Dame Jocelyn Bell Burnell, the distinguished astrophysicist who discovered pulsars. The event also included talks from female doctoral researchers in radio science, aimed at showcasing women's contributions and inspiring younger students to pursue careers in science and technology.

Another highlight was the presentation of the Second Edition of the Women in Radio Science Visibility Award, officially titled "Award for the Best Project Promoting Female Scientific and Technical Vocations in Radio Science." This initiative seeks to recognize and give visibility to transformative projects that encourage scientific and technical vocations among girls and women.

The jury was composed of Lianet Méndez (Carlos III University of Madrid), Neus Vidal (University of Barcelona), Carlos Molero (University of Seville), Celia Gómez (ANSYS), Cristina García Miró (Yebes Observatory and National Astronomical Observatory), Elena Abdo Sánchez (University of Málaga), Rocío Sánchez Montero (University of Alcalá), and Mikel Laso (Public University of Navarra), President of URSI-Spain.

The 2025 edition of the award was sponsored by the Official College of Telecommunication Engineers (*Colegio Oficial de Ingenieros de Telecomunicación*, COIT) and the Oesía Foundation, and included a main prize of €500 and two honourable mentions of €250 each.

- First Prize (€500, COIT): *"Hedy Lamarr Chair on Women and Technology"* (University of Málaga), led by Professor Mª Carmen Aguayo. This initiative bridges academia and industry to attract female talent into engineering through a wide range of programs — from innovation challenges and summer camps to teacher training and outreach activities (picture at right)
- Honourable Mention (€250, Oesía Foundation): *"InGenias: Fostering Technological Vocations and Science Outreach in Telecommunications"* (University of Valladolid), coordinated by Professor Noemí Merayo. The project promotes hands-on learning and mentorship experiences to make telecommunications and technology appealing and accessible to young girls and students. Professor Merayo participated online with a recorded presentation during the session.
- Honourable Mention (€250, Oesía Foundation): *"Inspiring Future Radio Scientists: Encouraging STEM Vocations in Girls and Young Women through the Vicente Miralles Segarra Telecommunications Museum"* (Polytechnic University of Valencia), led by Professor Carmen Bachiller. The initiative uses interactive exhibits and educational workshops to connect the history and innovation of telecommunications with the curiosity of young audiences. Laura Salas represented the project in person during the Tarragona session.

Two additional initiatives were acknowledged for their remarkable educational contribution:

- *Technovation Girls*, an international program empowering girls and young women to develop technology-based solutions for real-world challenges aligned with the United Nations Sustainable Development Goals.
- *Interplanetary Journey with Astronaut LiLi*, a national outreach project active since 2013 that fosters STEAM education and gender equality through space exploration and storytelling across Spain.

The special session featured presentations by Adrián Amor (Carlos III University of Madrid and COIT), Mª Carmen Aguayo (University of Málaga), Laura Salas (Polytechnic University of Valencia), and Noemí Merayo (University of Valladolid, via online presentation).

To commemorate the event, attendees received a WIRS-branded reusable bottle, kindly sponsored by URSI International, as a symbol of the Chapter's growing community and commitment to sustainability. The award ceremony was held during the Symposium Banquet Dinner, where the winners and honourable mentions were formally celebrated.

The Spanish Chapter of Women in Radio Science continues to grow with enthusiasm and determination. We warmly invite all scientists to join our initiatives, stay connected, and collaborate in building a more inclusive and inspiring radio science community.

(Communicated by Dr. Elena Abdo Sánchez)

Stimulating and co-ordinating, on an international basis, studies, research, applications, scientific exchange, and communication in the fields of radio science

URSI Channel on YouTube

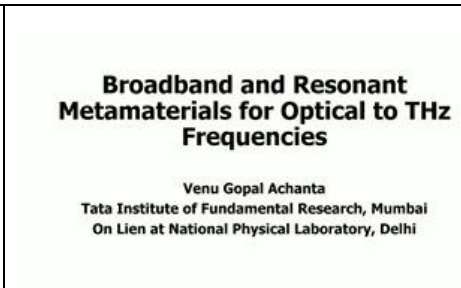
Keep on checking our YouTube channel… we add new recordings on the channel. All plenary lectures at AP-RASC 2025 in Sydney, Australia (17-22 August 2025) as well as several Commission J sessions were recorded and included on our YouTube channel. Make sure to subscribe to our channel!

URSI AP-RASC 2025 General Lecture 1

The Impact of Computational Electromagnetics on the New Generation of Radio Telescopes

18 August 2025

David Davidson
Curtin University (Australia)



URSI AP-RASC 2025 General Lecture 2

Broadband and resonant metamaterials for optical to THz frequencies

19 August 2025

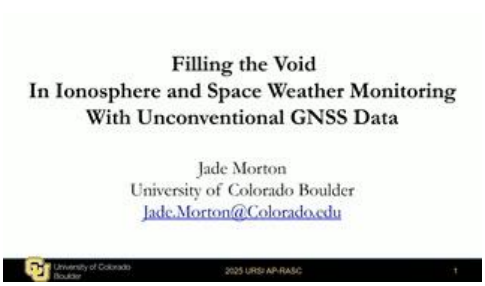
Venu Gopal Achanta
Tata Institute of Fundamental Research (India)

URSI AP-RASC 2025 General Lecture 3

Intelligent new spectrum communication for 6G

20 August 2025

Nan Chi
Fudan University (China)



URSI AP-RASC 2025 General Lecture 4

Filling the Void in Ionosphere and Space Weather Monitoring with Unconventional GNSS Data

21 August 2025

Y. Jade Morton
University of Colorado Boulder (United States).

URSI AP-RASC 2025 General Lecture 5

URSI: 100 Years of Radio Science Activities

22 August 2025

Peter Van Daele
URSI Secretary General
imec-Ghent University, (Belgium)

11th A.P. Mitra Memorial Lecture

Polarization of Light, Entanglement & Bell's Inequality

15 November 2025

Ajoy Ghatak

The National Academy of Sciences (India) and Optics & Photonics Centre, IIT Delhi (India)

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