



URSI Newsletter - 2025/Q3

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Welcome

At this time of the year, most probably you are enjoying some well-deserved holidays or at least enjoying some time off. Science and research, however, continue to progress and do not take a break as can be seen from the amount of material included in this Newsletter. We need to keep working on offering you as international organization, the services you expect.

We provide you here with updates on the upcoming URSI Flagship Meetings, especially the AP-RASC 2025 in Sydney with a record-breaking number of papers and participants. You might also notice that our Member Committees are very active and with every Newsletter we get more and new information on the local meetings they organize including the activities of the local WIRS (Women in Radio Science) chapters.

Make sure to continue to follow URSI on social media channels as this is the fastest way to spread news in our community. Make sure to check our YouTube channel as gradually we include more lectures and webinars.

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

6th URSI Asia-Pacific Radio Science Conference (URSI AP-RASC)

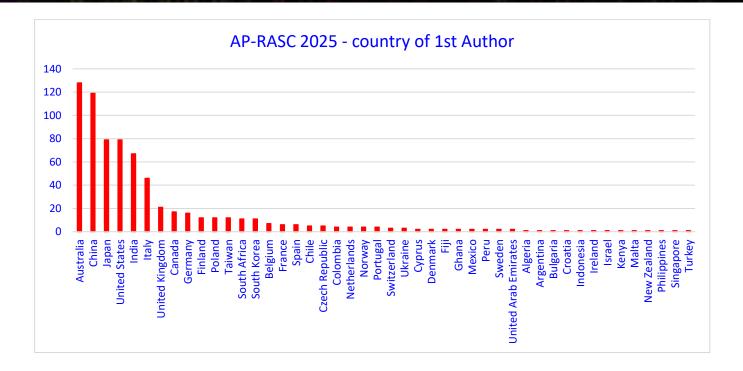
At the time this newsletter gets out, AP-RASC 2025 is about to start. As previously mentioned, we received a record number of papers submitted, but we now also expect a record number of participants to join us in Sydney. Currently registration stands at 620 participants (see world map below). If you have not registered yet? There is still time to do so and get on the plane to Sydney.

Check the website for updated information on the programme, the venue and travel advice.

Details and information on the five AP-RASC 2025 General Lectures as well as the 10



Commission Keynote Lectures were given in our previous newsletter (2025-Q2), but besides these interesting and attractive lectures, we also have 686 regular presentations and posters grouped in 295 sessions.



URSI AP-RASC 2025 General Chairs

- Paul D. Smith, Macquarie University, Australia
- Elena Vinogradova, Macquarie University, Australia
- Kazuya Kobayashi, Chuo University, Japan
- Amitava Sen Gupta, The Northcap University, India

URSI AP-RASC 2025 URSI Radio Science School for Young Scientists

On Sunday 17 August, as part of AP-RASC 2025, and as it has been the case during all URSI Flagship Meetings, the **URSI Radio Science School for Young Scientists** is organised. This School for Young Scientists is making use of the unique character of URSI by which an extremely very broad field of research is covered through the 10 URSI Commissions.

This School, as all of the URSI Flagship Meetings stimulate the inter-Commission contacts and information exchange and is considered as a Training School on Inter-Commission Capacity Building.

This years school is organised by Dr. Syed Muzahir Abbas, Macquarie University, Australia and Prof. Karu Esselle, University of Technology Sydney, Australia and carries as main topic "Radio Science from the Blue Planet to Space"

ABSTRACT

Radio science plays a pivotal role in advancing our understanding of both our home planet and the vast expanse of space. The workshop "Radio Science from the Blue Planet to Space" offers young scientists an inspiring journey through the breadth and depth of modern radio science, from Earth's surface and atmosphere to the far reaches of space. An immersive exploration of how radio waves are used to probe Earth's atmosphere, monitor environmental changes, and communicate across planetary distances.

URSI Radio Science School for Young Scientists, provides a foundational platform for early-career researchers to engage with core principles, emerging techniques, and global challenges across the diverse domains of the International Union of Radio Science (URSI). Participants will explore a wide spectrum of topics including fundamental principles and cutting-edge applications of radio science, electromagnetic wave propagation, atmospheric and ionospheric physics, remote sensing, radio astronomy, weather radar to satellite communication and deep-space telemetry. The program integrates the science of Earth's radio environment—its oceans, land, and ionosphere—with cutting-edge research in solar-terrestrial interactions, planetary space weather, and deep-space communication. Through lectures, case studies, and hands-on sessions, the workshop highlights the roles of URSI



Commissions A to K, encompassing telemetery, electromagnetic theory, telecommunications, signal processing, biological impacts, and more.

Designed to foster interdisciplinary understanding and collaboration, this workshop equips young researchers with the tools, perspectives, and global context needed to advance radio science—from our blue planet to the outermost frontiers of space.

COURSE PROGRAM: Sunday, 17 August, 09:00-17:40



09:00 – 10:30 – HF Radar: From Physical Principles to Operational Systems
Prof. Stuart Anderson
University of Adelaide and University College London
Adelaide, Australia



11:00 – 12:30 – Opportunities and Challenges in Antenna and Radio-Frequency Research
Distinguished Prof. Karu Esselle, FRSN, FIEEE, FIEAust
University of Technology Sydney (UTS)
Sydney, Australia



14:00 – 15:30 – Radio Telescopes 101 – How Radio Telescopes Image the Sky
Prof. David Davidson, FIEEE
Professor, International Centre for Radio Astronomy Research
Curtin University, Perth, Australia
and

Stellenbosch University, Stellenbosch, South Africa

Extraordinary Professor,



16:00 – 17:30 – Interactive Session: Current Challenges and Opportunities

Dr Syed Muzahir Abbas

Chair, IEEE New South Wales Section

Lead Antennas Design Engineer, GME Australia, and

Adjunct Fellow, Macquarie Univerity,

Sydney, Australia

The AP-RASC 2025 social programme, ideally for networking with your peers includes a Welcome Reception, the Young Scientist Party, a Conference Diner and a special WIRS reception at different attractive locations in Sydney.





URSI GASS 2026



In our previous newsletter we published a welcome address by Prof. Józef Modelski, URSI GASS 2026 General Chair.

However many more people are involved.

Scientific Program Coordinators - Co-Chairs



John Volakis Professor, Florida International University, Miami, USA



Andrzej Krankowski Professor, University of Warmia and Mazury, Olsztyn, **Poland**

Organizing Committee



Józef Modelski Warsaw University of Technology



Artur Rydosz AGH University of Kraków



Andrzej Witczak Military University of Technology, Warsaw



Sławomir Ambroziak Gdańsk University of Technology



Sławomir Hausman Łódź University of Technology



Iwona Stanisławska Space Research Center, Warsaw



Grzegorz Bogdan Warsaw University of Technology





Supported by





We look forward to welcoming you in Kraków, Poland in 2026 for the 36th URSI General Assembly and Scientific Symposium (URSI GASS 2026).



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.



Young Scientist Paper Competition

URSI has a clear intention to support Young Scientists (YS) in building their academic careers. At the URSI Benelux Forum, this is reflected in the YS Paper Competition. YS paper prices of €400, €200 and €100 will be awarded based on the quality of the abstract and poster.

Organisation

The structure of the Forum will consist of Poster Sessions with contributions from all fields covered by every of the 10 URSI Commissions in addition to a plenary program around the theme "Progressing science and society with radio waves", highlighting radio science research in the Benelux.

(Communicated by: Prof. Stefan Wijnholds)

URSI Member Committee – Egypt

42nd National Radio Science Conference (NRSC 2025), 6-8 May 2025, Cairo, Egypt

The conference was jointly organized by the National Radio Science Committee of the Egyptian Academy of Science and Scientific Research & Technology and Arab Academy for Science, Technology and Maritime Transport (AASTMT), Cairo, Egypt. The following are some of the NRSC2025 conference highlights:

The opening session was a resounding success, held in the main hall of ASSTMT's Sheraton Heliopolis branch, in the distinguished Gamal Mokhtar Hall. The event was attended by an exceptional group of VIP guests, highlighting the conference's significance. Among the attendees were Prof. Ismail Abdel Ghafaar, the esteemed President of AASTMT; Prof. Gina El Feky, President of Egypt's Academy of Scientific Research & Technology (ASRT), signifying

the national importance of the event; and the internationally renowned Prof. Ari Sihvola, President of the International Union of Radio Science (URSI). The session was expertly steered by the conference chair, Prof. Said Elkhamy and was further enriched by the presence of many other esteemed professors, as captured in the accompanying figure. This gathering of academic and institutional leaders set a powerful and inspiring tone for the conference.



The Women in Radio Science (WIRS) Egypt Chapter led by Prof. Hadia Elhennawy and Prof. Rowayda Sadek, honored Prof. Gina Elfik and Prof. Ari Sihvola with shields of appreciation. The award for Prof. Elfiky recognized her consistent support for women in science, while Prof. Sihvola was honored for his ongoing support of WIRS chapters worldwide as the President of URSI.

The conference welcomed a distinguished lineup of world-renowned experts as keynote speakers:

Prof. Ari Sihvola, (URSI President, Aalto University, Finland)

Prof. Yahia Antar (Canada Research Chair in Electromagnetic Engineering) and

Prof. Abdel Razik Sebal Concordia Research Chair in Concordia University, Conc

Prof. Abdel Razik Sebak, (Tier I Concordia Research Chair at Concordia University, Canada). Together, these three luminaries shared their cutting-edge research and invaluable perspectives, inspiring attendees.

Following the tradition of NRSC conference series, three pioneers of Radio Science in Egypt have been honoured and their contributions to the radio theory and practice were acknowledged:

- Prof. Ismail Abdel Ghaffar Ismail Farag, Arab Academy of Science and Technology
- Prof. Ali Hassan Ali Mustafa, Menoufia University
- Prof. Wagdy Refaat Anis, Ain Shams University.



After the opening, Prof. Sihvola delivered a compelling speech, offering a comprehensive overview of URSI, including its rich history and diverse activities. The conference proved to be a major scientific gathering, successfully attracting a diverse audience of researchers, students, and academic staff from various universities and research institutes across Egypt. The conference was a major scientific gathering over 250 scientists and specialists from Egyptian universities and research institutes, as well as international contributors. This diverse gathering of academic leaders and researchers highlights its growing global reach and collaborative spirit

The conference technical program was enriched by a variety of specialized sessions, including four invited keynote speeches by distinguished figures from academia and industry, as well as four invited review papers. The conference

also featured two specialized workshops. A workshop for young researchers workshop-research showcasing seven papers authored by graduate students, providing a valuable opportunity to explore the latest advancements and future directions in rapidly evolving fields. Additionally, the conference hosted a "Microwave specialized workshop on Detection Sensors for Cancer and Monitoring," which aimed to foster collaboration between engineers, medical researchers, and industry professionals.





To encourage the next generation of radio scientists, a special session was dedicated to showcasing student innovation. Graduation project posters were selected for presentations, and the poster sessions were a major highlight of the conference. These sessions were crowded with enthusiastic participants, including session chairs, NRSC committee members, and students from various educational institutes, all eager to engage with the young researchers' work.

Following the NRSC tradition, five papers were recognized for their outstanding contributions, including two "Best Paper Awards" and three "Best Student Paper Awards." The URSI provided support towards the student awards. All winning papers were co-authored and presented by graduate students or young scientists, highlighting the conference's commitment to nurturing emerging talent. Additionally, six student graduation projects received recognition awards. A commemorative photo of the winning student teams, their advisors, and the Awards Committee is shown at right.



(Communicated by: Prof. Said El-Khamy, Prof. Hesham El-Badawy, Prof. Rowayda A. Sadek)

URSI Member Committee – Germany

Kleinheubacher Tagung 2025, 23-25 September 2025, Miltenberg, Germany



The Kleinheubacher Tagung 2025 of the U.R.S.I. Landesausschuss in Deutschland e.V. is the annual meeting of the U.R.S.I. Member Committee in Germany and will take place at the Old Townhall (Altes Rathaus) in Miltenberg, Germany, from 23 to 25 September 2025. Conference languages are English and German, English

contributions and presentations are preferred.





The Kleinheubacher Tagung 2025 of the URSI Committee of Germany e.V. will take place at the Altes Rathaus in Miltenberg.



URSI Member Committee - Italy

Report on the Italian URSI Committee Meeting 2025

The annual meeting of the Italian URSI Committee was held on July 25-26, 2025 in Bologna (Italy). The event was jointly held with the 2025 URSI Electromagnetic Theory Symposium (EMTS 2025) organized by URSI Commission B in collaboration with a local organizing committee chaired by Prof. Vittorio Degli Esposti (University of Bologna).

The Italian National URSI Committee Meeting was attended by more than thirty researchers working in universities and research institutes.

The program of the meeting was structured over four sessions. During the first day of the meeting (July 25) National and International URSI Activities were respectively presented by the President of the URSI Italian Committee, Prof. Carlo Carobbi, and Prof. Peter Van Daele, Secretary General of URSI. Prof. Van Daele shed light on the beginnings of the more than 100 years history of URSI, explaining in particular the reasons why URSI headquarters are in Belgium and the birth of the 10 scientific commissions. The audience appreciated the presentation style of Prof. Van Daele, who alternated historical facts with curiosities about the development of URSI.

After presentation of URSI history, a session organized by the Italian Chapter of URSI Women In Radio Science (WIRS) followed, titled "Pathways and Perspectives: Women Navigating RadioScience". After the introduction of Prof. Paola Russo, Secretary of the Italian URSI WIRS Chapter, three presentations were given providing insights about the peculiarities of the career and life of the three speakers (Prof. Francesca Vipiana, Prof Alice Buffi and Dr. Michela Longhi), all of them working in the areas of radio-science. We believe that WIRS sessions are unique in the inspiring mix that they provide between human aspects and achievements of women involved in scientific research. The picture below was taken at the end of the WIRS session.



The last session of July 25 was devoted to the *Roberto Sorrentino Award* with the presentations of the three Young Scientists (less than 35 years old) selected by an ad-hoc nominated jury. The final of 2025 edition of the Roberto Sorrentino Award was chaired by Prof. Giuliano Manara (Secretary of the URSI Italian National Committee). During



the session, the three finalists presented their papers. In particular, the 2025 Italian URSI Committee Young Scientist Best Paper Award was assigned to Dr. Federico Giusti (University of Siena), for the paper "Open-Stopband Suppression for Extended Nondiffractive Ranges in Leaky-Wave Circularly Polarized Bessel

Dr. Federico Giusti receives the URSI Sorrentino Award 2025 (from left to right: Prof. Vittorio Degli Esposti, Chair of the LOC of EMTS 2025, Prof. Peter Van Daele, URSI Secretary General, Dr. Federico Giusti, Prof. Ari Sihvola, President of URSI, and Prof. Carlo Carobbi, President of the URSI Italian Committee).



Beams". Honorary mentions were given to the other two finalists: Dr. Giada Maria Battaglia (Università degli Studi Mediterranea di Reggio Calabria), for the paper "Near-Field Power Synthesis of a Controlled Distribution in Half-Space Media," and Dr. Giuseppe Labate (TNO - The Netherlands Organization for Applied Scientific Research), for the paper "Non-radiating currents and where to find them: 13 years on the quest for zeros in electromagnetic scattering and radiation."

The URSI award and the honorary mentions were announced during the EMTS 2025 gala dinner.

On July 26, the URSI Special Session chaired by Prof. Carlo Carobbi was given. Three tutorials were presented as multidisciplinary contributions from three corresponding URSI Scientific Commissions.

The first tutorial was a contribution from Commission G (Ionospheric Radio and Propagation). The tutorial entitled "Al-powered Ionospheric Forecasting" was presented by Dr. Claudio Cesaroni from Istituto Nazionale di Geofisica e Vulcanologia (Rome, Italy).

The second tutorial was a contribution from Commission J (Radio Astronomy). The title of the presentation was "LOFAR and the gigantic leap forward in low-frequency radio astronomy". It was given by Dr. Gianfranco Brunetti from the Institute for Radioastronomy of the National Institute of Astrophysics (Bologna, Italy).

The third tutorial was a contribution from Commission B (Fields and waves, Electromagnetic theory and applications), exceptionally given by the President of URSI, Prof. Ari Sihvola (Aalto University, Finland) and titled "Paths from early origins of electricity to modern radio science."

(Communicated by: prof. Carlo Carobbi, prof. Giuliano Manara and prof. Andrea Michel)

Meetings with financial support by URSI Commissions

13th International Workshop on Advanced Ground Penetrating Radar (IWAGPR2025) 2-4 July 2025, Thessaloniki, Greece

The 13th International Workshop on Advanced Ground Penetrating Radar (IWAGPR2025) was successfully concluded from July 2 to 4, 2025, in Thessaloniki, Greece, at the Research Dissemination Center (KEDEA) of the Aristotle University of Thessaloniki (AUTh). The event was hosted by the School of Geology and the Faculty of Sciences, AUTh, and with the technical co-sponsorship of the IEEE Geoscience and Remote Sensing Society (GRSS). The Chair of the Organizing Committee was Dr. Nectaria Diamanti, Research Scientist at the Department of Geophysics, AUTh. IWAGPR is a biennial event devoted to advancing research, development, and innovation in the field of Ground Penetrating Radar (GPR). Alongside the recurring GPR conference series, it is one of the only international events exclusively focused on GPR, providing a unique platform for scientists, engineers, practitioners, and manufacturers from across the globe to exchange knowledge, discuss emerging trends, and foster collaboration. The conference attracted 163 participants from 34 countries — a record number in terms of geographical reach — making it the largest edition in the history of the series, which began in 2001 at TU Delft, the Netherlands. The technical program included two pre-conference short courses, three keynote lectures and 83 scientific papers presented across 13 oral sessions and two poster sessions. The exhibition was particularly rich, with nine exhibitors showcasing their latest GPR equipment, including a field demonstration at the premises of the AUTh Gymnasium.

A highlight of the event was the presentation of the Lifetime Achievement Award to Peter Annan by the IWAGPR and GPR Scientific Committees, in recognition of his profound and sustained contributions to the evolution of Ground Penetrating Radar science, technology and practice.







This year also marked a significant moment, with the scientific committees of IWAGPR and GPR formally merging, strengthening collaboration and continuity within the global GPR community.

As part of IWAGPR2025, the Best Student Paper Award was presented with the support of URSI, which sponsored the award with a monetary prize of 500 EUR. The student paper competition (SPC) aimed to recognize outstanding contributions by student researchers in the field of GPR.

A total of six student-led papers (with the student listed as first author) were shortlisted for the award after the IWAGPR2025 paper review process, during

which each paper submission was peer-reviewed by a minimum of two experts from the conference Scientific Committee, ensuring evaluation based on scientific merit, clarity, and originality.

The shortlisted student papers were:

- 1. "Possibilities for reducing FWI calculation costs for GPR multi-offset data"; Bingchao Li¹, Anja Klotzsche², Jan van der Kruk², Dominik Hoven², Xun Wang¹, Deshan Feng¹; (1) The School of Geosciences and Info-Physics, Central South University, China, (2). Agrosphere (IBG-3), Institute of Bio- and Geosciences, Forschungszentrum Jülich, Germany
- 2. "Accelerating GPR Numerical Simulations via Machine Learning: A Sparse Multi-Offset and Supershot Framework"; Yuxin Liu¹, Antonios Giannopoulos², Deshan Feng¹, Xun Wang¹; (1) Central South University, China, (2). The University of Edinburgh, U.K.
- 3. "End-to-end GPR System Simulation: Parameter Study and Optimization for Reconfigurable Design"; Léa Mercier¹, Yann Hervé², Valérie Ciarletti¹, Benoit Agnus², (1) LATMOS, France, (2) SCIENTEAMA, France
- 4. "Development of a digital twin for airborne ground penetrating radar"; Ying Wang¹, Feng Zhou¹, Iraklis Giannakis², Antonios Giannopoulos³; (1) China University of Geosciences (Wuhan), China, (2) University of Aberdeen, U.K., (3) The University of Edinburgh, U.K.
- 5. "Integrating Back Projection and Full-Wave Inversion for Advanced Multilayer Reconstructions"; Zihan Xu¹, Xinfei Jin², Hongxu Li², Fulin Su², Guodong Xu², Sebastien Lambot¹; (1) Université Catholique de Louvain, Belgium, (2) Harbin Institute of Technology, China
- 6. "MS-TFNet: An unsupervised deep learning method for multi-frequency GPR data fusion in tunnel lining inspection"; Huaiyuan Zhou¹, Tess Luo², Yiqing Ni¹; (1) The Hong Kong Polytechnic University, Hong Kong, (2) Shenzhen University, China

The international judging panel that evaluated the shortlisted student papers and the oral presentations during the conference was composed of:

- Peter Annan AJPJA, Canada
- John Bradford Colorado School of Mines, U.S.A.
- Xavier Derobert Université Gustave Eiffel, France
- Wallace Wai Lok Lai The Hong Kong Polytechnic University, Hong Kong
- Evert Slob Delft University of Technology, The Netherlands
- Jens Tronicke University of Potsdam, Germany



Following the panel's unanimous decision, the Best Student Paper Award was presented to Léa Mercier, a Ph.D. student at the Laboratory for Atmospheres, Observations, and Space (LATMOS), France.

Regarding upcoming IWAGPR2025 activities, the conference proceedings will be published in IEEE Xplore. Additionally, a Special Issue in the IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (J-STARS) has been secured. Authors of selected high-ranking IWAGPR2025 papers will be invited to submit extended versions of their work for consideration for publication in this Special Issue.

For more information, you may visit: www.iwagpr2025.gr

(Communicated by: Dr. Nectaria Diamanti)

Radio 2025

27-30 October 2025, Mauritius



The 9th edition of IEEE RADIO will be held from 27 to 30 October 2025 in Mauritius. The aim of the conference is to discuss recent developments, theories and practical applications covering the whole scope of radio frequency engineering, including radio waves, antennas, propagation and electromagnetic compatibility.

Prospective authors are invited to submit original contributions on their latest research activities. Student papers are strongly encouraged. IEEE RADIO 2025 will feature three Best Student Paper Awards, a Young Scientist Award and an Industrial Engineering Paper Award. Proposals for special sessions, workshops

and tutorials are welcome. A panel of distinguished researchers will deliver keynote speeches/invited talks on recent technology trends and advances.

ISAP 2025

27-31 October 2025, Fukuoka, Japan

ISAP2025 is intended to provide an international forum for the exchange of information on the progress of research and development in antennas, propagation, electromagnetic wave theory, and related fields as shown in the SCOPE. It is also an important objective of this meeting to promote mutual interaction among participants.



Beacon Satellite Symposium 2025

10-14 November 2025, Rome, Italy

We are pleased to announce the call for abstracts for the Beacon Satellite Symposium 2025 (BSS 2025), which will be held in Rome, Italy, from 10 till 14 November 2025.

This symposium, organized by INGV, ICTP, Boston College and Univ. of Warmia and Mazury in the



framework of the International Union of Radio Science (URSI) Commission G activities, will gather leading researchers and experts in ionospheric science from around the world. The symposia provide a key platform for ionospheric scientists to meet, collaborate, and advance our understanding of ionospheric physics and its effects on radio propagation.



We invite you to submit your abstracts for presentation at the symposium. The deadline for abstract submission is 15 June 2025. For further details about the symposium, including abstract submission guidelines and session descriptions, please visit the BSS website: https://bss2025.ingv.it/

Pre-Symposium Workshop:

In addition, we are organizing a workshop in the week preceding the BSS, focused on "The Use of GNSS Data for lonospheric Monitoring and Modelling." This workshop will provide PhD students and Early Career Scientists with lectures from top-level experts in the field. There is no registration fee for the workshop. **The application deadline for the workshop is also 15 June 2025.**

A limited number of grants are available to support selected participants in attending both this workshop and the Beacon Satellite Symposium 2025, with priority given to participants from developing countries.

Details about the workshop can be found on the dedicated ICTP webpage: https://indico.ictp.it/event/10919

(Communicated by: Claudio Cesaroni)

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

ISEA17 - 17th International Symposium on Equatorial Aeronomy

9-13 February, 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



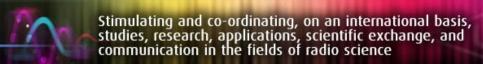
17th International
Symposium on Equatorial
Aeronomy
February 9-13, 2026, Liberia, Costa Rica

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 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, 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.

Honoring 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 honored 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. Figure (1) shows the moment of appreciation, capturing the presentation of honorary shields to Prof. Gina El-Fiky and Prof. Ari Sihvola, symbolizing the chapter's recognition of their impactful contributions.





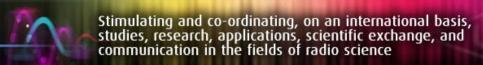
Left: Gratitude to Prof. Gina El-Fiky (from right to left Prof. Ismail Abdelghafar, Prof. Rowayda Sadek, Prof. Gina El-Fiky, Prof Hadia, and Prof Said)

Right: Gratitude for Prof. Ari Sihvola (from right to left Prof. Ismail Abdelghafar, Prof Said, Prof. Rowayda Sadek, Prof. Ari Sihvola, Prof. Gina El-Fiky, Prof Hadia, and Prof. Khaled)

Opening Talk

The session began with a keynote presentation by Prof. Rowayda A. Sadek, who provided a comprehensive history of WIRS Egypt Chapter's activities and outlined the chapter's vision and requirements for further support from URSI. Her talk emphasized the importance of institutional backing and international recognition for sustaining women's contributions in radio science.





Guest Speech: Women in ERI

This year, in addition to the highly caliber invited women, WIRS Egypt Chapter was honored to host Prof. Ari Sihvola, President of URSI, whose presence added international weight to the session. The session was also enriched by

Prof. Said El-Khamy, Chair of the NRSC Conference, whose support has been instrumental in promoting WIRS initiatives. Prof. Sherine AbdelKader, President of the Electronics Research Institute (ERI), delivered a compelling talk on the evolving role of women in ERI and their contributions to national research efforts. Her insights highlighted institutional progress and the importance of leadership roles for women. The photo shows Expressing the WIRS gratitude for Prof. Sherine AbdelKader (from right to left: Prof. Hadia elhennawy, Prof. Said Elkhamy, Prof. Sherine AbdelKader, Prof. Ari Sihvola, Prof. Rowayda Sadek.



Award Presentations and Judging Panel

Following the talks, the session transitioned into the Outstanding Thesis/Dissertation Award segment. Nominees gave 10-minute presentations summarizing their research, publications, and impact. The judging panel, composed of both women and men experts in radio science, evaluated the candidates based on pre-announced criteria and engaged in discussions to finalize the awards. Women Judges Included: Prof. Noha Hany El-Amary, Prof. Hanady Hussien Issa, Prof. Safa Gasser, Prof. Eman Hassan Beshr and Dr. Omayma Farouk Younis. Their expertise and dedication were complemented by several male judges, ensuring a balanced and inclusive evaluation process. They really enriched the session. Figure (6) shows the appreciated awarded women with the Judge Committee.



Picture at left: WIRS judge committee (in the upper part) with appreciated awarded women (in the bottom part)

A Moment of Resilience

One presentation stood out as a testament to the challenges women face in balancing career and

family. Eng. Hoda Morshed, one of the nominees, delivered her presentation while carrying and feeding her crying daughter. Her determination and grace under pressure moved the audience and exemplified the strength and perseverance of women in science. Figure 7 captures a powerful moment of resilience and dedication.

Reflections on Women's Journeys in Radio Science

A heartfelt and engaging segment of the WIRS session was dedicated to open dialogue and reflection, where attendees explored the multifaceted realities of women's careers in radio science. Participants shared personal experiences and responded to questions addressing the obstacles women face, such as limited opportunities, societal

Hopen on Coll.

expectations, and work-life balance. The discussion also highlighted the positive role of male allies—mentors, colleagues, and family members—who have supported women in their scientific journeys. Many speakers emphasized the importance of balancing professional ambitions with personal responsibilities, offering practical insights and encouragement to younger researchers. This segment fostered a sense of solidarity and empowerment, reinforcing the value of community and shared experience in overcoming barriers.



Conclusion and Future Outlook

The WIRS Egypt Chapter is a powerful catalyst for change, providing a platform for women in radio science. The chapter's initiatives, including mentorship, awards, and advocacy, have inspired a growing community of female scientists and researchers. To build on this success, the chapter plans to expand its activities to further empower women in science and technology. WIRS Egypt Chapter presented several requests to URSI Central, including continuing to highlight gender balance through dedicated events, enhancing support for WIRS chapters, regularly showcasing women scientists as role models to inspire future generations, and providing sessions on time management and work-life balance. Additionally, the chapter requests that URSI initiate and support working groups that align with the UN's Sustainable Development Goals (SDGs), ensuring radio science contributes meaningfully to global sustainability efforts. These actions aim to build a more inclusive community where women are leading, innovating, and shaping the future of radio science. We hope that this session will inspire future generations of women to develop their careers in radio science and pursue their dreams in this exciting and evolving field. Together, we can build a brighter future for radio science, one that includes more women around the world. The chapter hopes to inspire future generations of women to pursue their dreams in this field, contributing to a brighter future for radio science worldwide.

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

WIRS China CIE Chapter

The WIRS Chapter China-CIE was founded on 14 May 2024. It currently has the following officers:

- Chair: Haiyang Fu, Professor, School of Information Science and Technolgy, Fudan University, Commission G, haiyang fu@fudan.edu.cn
- Vice-Chair: Ying Liu, Professor, Xidian University, Commission B, liuying@mail.xidian.edu.cn
- Secretary: Qianjuan Wang, Beijing Orient Institute of Measurement and Test, Commission A, wangqianjuan@yeah.net

The URSI-China CIE attended the WIRS conference and reported our chapter during the URSI AT-RASC conference on 19-24 May 2024. On 24-26 October 2024, the URSI-CIE WIRS chapter hosted the URSI Young Scientist and WIRS forum during the 14th International Conference on Antennas, Propagation, and Electromagnetic Theory (ISAPE 2024) conference, Heifei, China.

We plan to host a woman in radio science WIRS seminar during the National Conference of Chinese Radio Wave Propagation in Xian, China on 16-28 October 2025. During this seminar, we will plan to invite three female scientists.

(communicated by Prof. Haiyang Fu)

WIRS Portugal Chapter

A new WIRS Chapter is currently being set up in Portugal. Plans on activities is ongoing and we will report on this in future editions of this Newsletter.

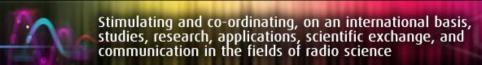
(Communicated by Filipa Limpinho)



WIRS Chapter Sweden

On 2 April 2025, URSI WIRS Sweden organized an invited workshop together with EurAAP Women in Antennas and Propagation (WiAP) and the EurAAP Early Career Researchers (ECAP) at the EuCAP conference in Stockholm, Sweden.

The talk was 30 minutes long including questions. During the talk, Assoc. Prof. Mariana Dalarsson presented URSI and WIRS as global organizations, including their history and organization. The talk then continued to



explain why the Women in Radio Science Chapter is needed. The WIRS mission is not only valuable for better representation of women, but also crucial in narrowing the gender gap in the radio-science community by promoting women in radio science, providing early career women researchers resources and networking, and offering mentorship at all stages of their careers. Thereafter, some of the activities within WIRS during recent years was presented, including both WIRS events at URSI flagship meetings, as well as local initiatives in the URSI Member Committees. The talk concluded with a discussion about the activities of WIRS Sweden Chapter, as well as more general reflections about how to improve equal opportunities within URSI's branches. Several new ideas were shared, both after the talk and during the rest of the conference, which will promote WIRS activities in Sweden, and contribute to the overall mission of WIRS.

The photo shows Assoc. Prof. Mariana Dalarsson (secretary of URSI WIRS Sweden), Dr. Pilar Castillo Tapia (Vice-Chair of WiAP WG) and Dr. Cristina Yepes (Chair of ECAP WG).

URSI ECRs – Early Career Representatives

ECR Mini-Challenge: AP-RASC 2025

A simple way to get more out of AP-RASC 2025 in Sydney: pick any three in a row (or go blackout), then send us your notes. We'll feature selected entries in the next ECR Spotlight and use your feedback to shape future ECR actions.

How to play (Aug 17-22):

- As you attend sessions, jot 1–2 sentences per square.
- Email ECRnews@ursi.org by August 25, 2025 with subject: ECR Bingo [Your Name], [Institution]
- Include: your notes, session codes/titles, and publish consent (yes/no). Optional: 1 photo.

Your 3×3 card (choose any line):

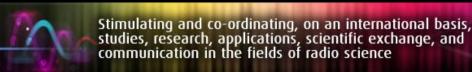
- 1. Try-soon method A technique you can apply within 30 days. What will you do and where?
- 2. ML for RF An ML/signal-processing idea for spectrum/measurement you hadn't considered. Why useful?
- 3. Open resource A dataset/code/standard/measurement script you discovered. Share the link/contact.
- 4. Cross-Commission bridge A connection across Commissions (e.g., A ← E/B/H). What's the bridge and why it matters?
- 5. Gotcha & fix A measurement/simulation pitfall—and the workaround.
- 6. Mentor moment Someone you'll follow up with. One question you'll ask post-conference.
- 7. Keynote insight One idea that changes your mental model. One plain-language sentence.
- 8. Poster surprise A poster that shifted your intuition. What surprised you?
- 9. One concrete action The specific step you'll take after AP-RASC (tool to try, experiment to run, email to send).

Why try it?

- You leave with actionable takeaways, not just notes.
- We'll feature standout entries and turn common needs into proposals for future ECR-focused activities.

Until next time,

(Communicated by Ricardo Figueiredo)



URSI as a partner with other International Organisations

SCOSTEP - Scientific Committee on Solar-Terrestrial Physics

SCOSTEP runs international interdisciplinary scientific programs and promotes solar-terrestrial physics research by providing the necessary scientific framework for international collaboration and dissemination of the derived scientific knowledge in collaboration with other ISC bodies.



The Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) was established in January 1966 by the International Council of Scientific Unions (ICSU), our precedessor organization, as the Inter-Union Commission on Solar-Terrestrial Physics (IUCSTP). In September 1978, with the ratification of the current Constitution by the XVIIth ICSU General Assembly, SCOSTEP became a Scientific Committee of ICSU charged with the long-term responsibility of promoting international interdisciplinary programs of finite duration in solar-terrestrial physics. It aims to: 1) develop and sustain student interest in Sun-Earth connections, 2) promote efficient exchange of data and information between solar and terrestrial scientists in all countries, and 3) seek projects and programs that cross over traditional boundaries of physical regions and focused scientific disciplines.



SCOSTEP is engaged in three major activities: long-term scientific programs, capacity building and public outreach. The scientific programs are designed to advance our understanding of the solar-terrestrial relationship using space and ground-based observations, cutting-edge models and theory. Thus SCOSTEP scientific programs are of interdisciplinary nature and involve scientists from all around the world. The underlying theme of these programs is the way the Sun affects the Earth over various time-scales. SCOSTEP's current scientific program, VarSITI (Variability of the Sun and Its Terrestrial

Impact) expands the solar-terrestrial physics into the broader context of star-planet interaction to further our understanding of Sun-Earth connection.

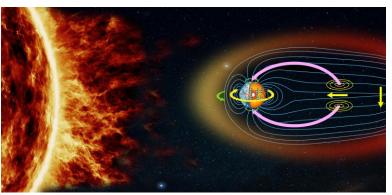
URSI is one of the participating bodies in SCOSTEP, besides COSPAR, IAGA, IAMAS, IAU, IUPAP, SCAR and ISC-WDS.

ISWI -SCOSTEP - International School on Space Weather

Solar Wind – Magnetosphere Coupling, and Magnetospheric and Ionospheric current systems

05 -09 January 2026, Mumbai, India

The International Space Weather Initiative (ISWI) is an international cooperation program dedicated to advancing our understanding of space weather through scientific research, the development of essential instruments, novel methodologies, analysis techniques, and capacity building. The Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) is a thematic body of the International Science Council (ISC) and is engaged in science, capacity building,



and public outreach to enhance our comprehension of the solar-terrestrial relationship through space-and ground-based observations, cutting-edge models and theories, often in cooperation with other scientific organizations and unions.

An International School on Space Weather will be organized in joint collaboration with ISWI and SCOSTEP at the Indian Institute of Geomagnetism (IIG), Navi Mumbai, India, from 5 to 9 January 2026. The primary objective of the School is to inspire and engage Master's and Ph.D. students from around



the world in the exciting research domains of solar-terrestrial physics and space weather. The school will feature a series of expert-led scientific lectures on recent advances and contemporary challenges within the field. In addition, hands-on data analysis workshops will provide participants with practical experience utilizing real data sets pertinent to space weather studies.

Course Coordinators: Dr.Nat Gopalswamy (NASA-GSFC, USA), Prof. Kazuo Shiokawa (ISEE, Nagoya University, Japan), Prof. S. Gurubaran (Indian Institute of Geomagnetism, India) and Prof. S. Tulasiram, (Indian Institute of Geomagnetism, India) with Prof.S. Tulasiram and Dr.Remya Bhanu as conveners.

Organised by: Indian Institute of Geomagnetism, Mumbai, India (An Autonomous Institute under Dept. of Science & Technology, Govt. of India).

IUCAF - The Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science

(ISC - IAU - URSI - COSPAR)

The Inter-Union Committee on the Allocation of Frequencies (IUCAF) was formed in 1960 by the International Astronomical Union (IAU) and the International Union of Radio Science (URSI), at the behest of URSI. The Committee on Space Research (COSPAR) joined the two Unions in supporting IUCAF around 1972, with a consequent change of name (but not the acronym).

The IUCAF brief is to study and coordinate the requirements of radio frequency spectrum allocations for passive radio sciences – radio astronomy, space research and remote sensing – and to make these requirements known to the national and international bodies that regulate the use of the radio spectrum.

IUCAF, like COSPAR, is an Affiliated Body and a Class 4 Member of the International Science Council where IAU and URSI, like other scientific unions, are Class 1 members. IUCAF is a Sector Member of the International Telecommunication Union's Radiocommunication Sector (ITU-R) with observer status at the Space Frequency Coordination Group (SFCG) and its Lunar-Martian Spectrum Group (LMSG), see https://www.sfcgonline.org/home.aspx.

IUCAF is a global forum where spectrum management concerns of passive radio science in all ITU-R Regions are regularly addressed in a comprehensive manner. The group is expert in the underlying science, in the spectrum management needs of the science and in the workings of the spectrum regulatory regime that allocates spectrum and makes the rules for radio spectrum use. IUCAF has supported radio astronomy and passive radio science in Geneva since its inception in 1960 when the first spectrum band was allocated for exclusive use by passive research at $1\,400-1\,427\,\text{MHz}$.

IUCAF is online and the first 40 years of IUCAF's history are summarized in this report.

(communicated by Harvey Liszt)

GeoDAWG – The joint working group between URSI Commission G and IAGA Divisions II and III

This is a joint working group between URSI Commission G and IAGA Divisions II and III. GeoDAWG was first formed in IAGA with a corresponding working group formed in URSI officially at GASS in Japan, although some activities had begun before then. At the last AT-/AP-RASC, a joint meeting was held with both working groups and the membership approved merging them into a joint WG across unions. At the IAGA meeting in Lisbon this summer, the final steps will be taken on the IAGA side to formally complete the merger and approve the new Charter, which now includes representation from both unions and will see the gradual transition of the GeoDAWG website to include both unions. It's a very similar arrangement as VERSIM.

(communicated by David Themens)



URSI Channel on YouTube

Keep on checking our YouTube channel... we add new recordings on the channel.

Three of the plenary lectures at EMTS 2025 in Bologna (23-27 June, 2025) were recorded and included on our YouTube channel.

Make sure to check them out and subscribe to our channel!

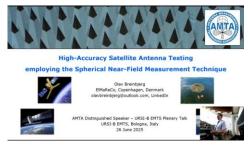




Evolution of Computational Electromagnetics: State-of-the-Art and Future Prospects

23 June 2025

Dr. Ulrich JakobusAltair Engineering (South Africa)



High-Accuracy Satellite Antenna Testing Employing the Spherical Near-Field Measurement Technique

24 June 2025

Dr. Olav Breinbjerg EIMaReCo (Denmark)



Frontiers in Bioelectromagnetic Research: Simulations, Experimental Activity and Applications

27 June 2025

Prof. Micaela LibertiBioEMLab Group, Sapienza University
of Rome (Italy)

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