

# INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE

# The IUGG Electronic Journal

Volume 25 No. 11 (1 November 2025)

This monthly newsletter is intended to keep IUGG Members and individual scientists informed about the activities of the Union, its Associations and interdisciplinary bodies, and the actions of the IUGG Secretariat, Bureau, and Executive Committee. Past issues are posted <a href="here">here</a>. E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

#### Contents

- 1. IUGG The People at the Forefront (LVII): Silvia Blanc, Secretary General of the International Association for the Physical Sciences of the Oceans (IAPSO), 2023-2031
- 2. IUGG Welcome Papua New Guinea
- 3. IUGG At the IAHS Scientific Assembly 2025
- 4. IAGA/IASPEI Joint Scientific Assembly 2025: Report
- 5. IAPSO Best Practice Study Groups 2026-2027: Call for Applications
- 6. ISC/UN Statement on Open Science
- 7. ISC Annual Report 2024
- 8. Awards and Honours
- 9. Obituary
- 10. Important Deadlines
- 11. Meeting Calendar

# 1. IUGG – The People at the Forefront (LVII): Silvia Blanc, Secretary General of the International Association for the Physical Sciences of the Oceans (IAPSO), 2023-2031



I was born in Argentina, seventy-five years ago, where I lived, studied and worked for almost my entire life, apart from some stays abroad related to post-graduate studies or taking advantage of visiting research positions. Fortunately, my whole family, my husband, our three sons, our three daughters-in-law and our five little grandchildren also live in Buenos Aires, Argentina.

Silvia Blanc (upper left), convening an international conference (right), and with team of early career scientists (bottom left)

My primary and secondary school studies took place in a small town, about 25 km from Buenos Aires. Around the age of 16, I started to be interested in physics and mathematics, and then I was amazed by the multiple phenomena that occur inside the sea, particularly those related to light and sound, perhaps motivated by many summers spent by the sea in different places on our long coast by the Atlantic Ocean. It was in the Faculty of Exact and Natural Science of the University of Buenos Aires (UBA), the public and largest university in my country, where I initially got my academic background in physics while simultaneously fulfilling my work duties as an elementary school teacher.

Physics always seems fantastic to me, but in those years I was very anxious to try to understand the physics of the ocean with the tools provided by mathematics. Of course, at that time, I was very far from being conscious of its extreme complexity. When I was nearly finishing my graduate courses, I met an Argentinian physicist who came back from the United States, where he had conducted his PhD courses on Acoustical Oceanography/Ocean Acoustics, Dr. Jorge Novarini (1942-2024). He introduced that branch of physics in the university, and in our country. He was my mentor for many years. I worked with him at the UBA and at the Argentinian Navy, due to the dual nature of acoustics applications in the ocean (civilian and military). He urged me to submit my first contribution, based upon recent at-sea measurements and some modelling, to a scientific event: the Colloquium of Oceanography of our National Committee of IAPSO. Indeed, just after I finished my presentation, I received a proposal to join the Oceanography Department of the Naval Hydrographic Service, thus obtaining my first job as an early career scientist (and becoming the first woman accepted by the Argentinian Navy to carry out scientific research and development activities).

My research work in the acoustical oceanography field started within IAPSO and it continued for more than fifty years, all the time trying to learn and contribute to an understanding of the propagation of sound in the sea. Undoubtedly, there have been strong feelings, a significant connection and commitment with IAPSO, and consequently with IUGG till now. I was successively honoured being elected as IAPSO National Correspondent of Argentina (2004-2012), IAPSO Executive Committee Member (2007-2015), and IAPSO Secretary General (2023-2031). Along more than four decades, I had the opportunity of participating in many IUGG General Assemblies, IAPSO Assemblies and IAPSO Joint Assemblies with other Associations, submitting works, chairing sessions and overseeing the scientific organisation. In all these events, I could open my mind in many aspects after interacting with researchers from different countries and situations about a wide range of scientific interests that we had in common, frequently addressed with different approaches, which proved to be very valuable.

My post-graduate studies were done at the UBA and the International Centre for Theoretical Physics (ICTP), Trieste, Italy. While my research and development work in hydroacoustics has been carried out at various national institutions such as UBA, the Hydrographic Naval Service, the National Service of Research and Development, the Argentinian Navy Research Office and UNIDEF (institution dependent on the National Council of Scientific and Technical Research and on Ministry of Defence), where I retired on May 2023 as Head of the Acoustic Propagation Department and Advisor to the Ministry of Defence. I had the pleasure of leading an interdisciplinary team of enthusiastic and smart early career scientists from whom I learnt a lot, and I from whom I continue learning.

My fields of interest include modelling of underwater sound wave propagation, bottom interaction and acoustic scattering by volume elements. These topics of interest, and many hours devoted to applied physics research (theoretical and experimental, that is modelling and at-sea

measurements), led me to author scientific articles, technical reports, book chapters, as well as scientific communications in international congress, conferences and workshops.

On different occasions I was invited as a visiting researcher to various universities, laboratories and institutions in Italy (ICTP), UK (Institute of Oceanographic Sciences), USA (Atlantic Oceanographic Meteorological Laboratory, Woods Hole Oceanographic Institution, Naval Research Laboratory and Applied Physics Laboratory), and Austria (Comprehensive Nuclear-Test-Ban Treaty Organization), where scientific interaction provided great benefits. I benefitted considerably as coming from a developing country in which facilities for updated equipment, funds for projects, stable policies for scientific research, etc, are very far from their equivalents in developed countries.

On the other hand, I have been always very fond of teaching. These activities cover undergraduate, graduate and doctoral courses at different national universities. Lately, I have co-overseen a PhD course on Foundations of Marine Acoustics at UBA for graduate physicists, engineers, oceanographers, and biologists.

As a summary I should say that almost all my personal life was immersed, mixed and splashed with topics of acoustical oceanography and I am very grateful for that. It has been a real privilege. On many occasions I could enjoy the unique pleasure of being on board a ship, a submarine or an airplane with the goal of measuring acoustic-oceanographic parameters in an attempt to improve our knowledge of the interaction of sound with the water column or the sea contours. And in many other occasions I could enjoy the pleasure of modelling, that means: '...dealing with the translation of our physical understanding of sound in the sea into mathematical formulae solvable by computers' (Paul Etter, 2008) and comparing the results with controlled scientific measurements at sea.

At this point, I should also say that I had the privilege that my family understands, encourages and shares, in some way, my work as a scientific researcher. We were always conscious of the difficult, but possible, equilibrium for a healthy family life-scientific work, having to take decisions based on at real-time priorities and needs, always feasible when everybody shares the activity of each other with respect and joy.

#### 2. IUGG – Welcome Papua New Guinea

On 29 September 2025, the IUGG Council unanimously accepted the application of Papua New Guinea to join IUGG as a Full Member of Category 1.

The IUGG thanks the Papua New Guinea University of Technology for acting as IUGG's Adhering Body of Papua New Guinea and for appointing the following members of the National Committee:



Ora Renagi (President), Richard Stanaway (Secretary and IAG Correspondent), Gideon Aiwa (IAGA Correspondent), Stephanie Konts (IAHS Correspondent), Felix Pereira (IAMAS Correspondent), Ahmad Sana (IAPSO Correspondent), Simon Kawagle (IASPEI Correspondent), and Suame Ampana (IAVCEI Correspondent).

#### 3. IUGG – At the IAHS Scientific Assembly 2025

The XIIth IAHS Scientific Assembly was held at the Indian Institute of Technology (IIT) campus in Roorkee, India, from 5 to 10 October. IIT Roorkee is home to several institutions that have a significant role in the Hydrological Sciences in India. IAHS2025 was hosted by the Department of Hydrology IIT Roorkee, in collaboration with the National Institute of Hydrology, the Central Building Research Institute, and the Irrigation Research Institute, and in partnership with the World Meteorological Organization (WMO) and the UNESCO Intergovernmental Hydrological Programme.

It was noted that the last IAHS Scientific Assembly hosted by India took place 16 years ago in 2008, in Hyderabad. As the Director of IIT Roorkee stated 'Water lies at the centre of humanity's most pressing challenges, from climate resilience and disaster risk reduction to sustainable management and equitable access. Meeting these challenges demands collaborative science, shared knowledge, and global solidarity.' IAHS2025 was therefore eagerly anticipated and strongly supported by the Indian hydrological community.

There were approximately 600 attendees from 35 countries. 682 abstracts were submitted, from 49 countries (272 international and 410 by Indian participants), representing 188 institutions, for a total of 21 oral and poster sessions over five days. There was also an Exhibition.

There were no parallel sessions. Each of the sessions was devoted to topics of the 11 IAHS Commissions and several IAHS initiatives. An innovation that was trialled was to restrict the presentations to two types: Plenary talks of 15 minutes length (each with an additional period for questions and answers), and Forum Oral flash presentations of 1 minute duration (that introduced a Poster topic). There were in total 39 Plenary talks, 308 Forum Oral, 462 Posters and 149 Video-interviews (for off-site contributions). In addition there were presentations for Stockholm Water Prize and IAHS Awards.



Chris Rizos, IUGG President, and Salvatore Grimaldi, IAHS President, at the IAHS Scientific Assembly 2025 in Roorkee, India

At this Scientific Assembly the IAHS highlighted its third Decadal Initiative, known as HELPING -Hydrology Engaging Local People IN One Global world. HELPING was launched in 2023, and 'emphasizes the crucial role of local knowledge addressing global water challenges, highlighting that solutions to complex hydrological problems emerge most effectively when global science engages with local communities.'

IAHS2025 demonstrated the strong commitment by the IAHS to engaging with the diverse hydrological community, in many countries across the globe.

Chris Rizos, IUGG President

# 4. IAGA/IASPEI - Joint Scientific Assembly 2025: Report

The International Association of Geomagnetism and Aeronomy (IAGA) and the International Association of Seismology and Physics of the Earth's Interior (IASPEI) held their IAGA-IASPEI Joint Scientific Assembly 2025, hosted by the Instituto Superior de Engenharia de Lisboa (ISEL) in Lisbon, Portugal, from 31 August to 5 September 2025. The assembly was attended by 1,266 participants, about half from each of the two Associations. The participants came from 66 countries and included over 120 students (mainly PhD students).





Opening ceremony (left), coffee break, and poster viewing (right) of the IAGA-IASPEI Joint Assembly 2025

The program consisted of 33 joint sessions, and additionally 106 IAGA and 63 IASPEI sessions and about 50 business meetings where the activities of different Association Divisions, Commissions, and Working Groups were discussed. Highlights of the program included the IAGA Award Ceremony with the Shen Kuo Medal lecture, given by Keke Zhang on the topic of the 'MSS Geomagnetic Satellite Constellation, Earth's Core Convection and Real-Time Geomagnetic Modeling' and the IASPEI Lecture, which was given by Susana Custódio, on the topic of 'The 1755 Great Lisbon Earthquake, 270 Years Later: A Unique Event in a Cryptic Plate Boundary'. Posters were available for two days during extended one hour coffee breaks, in a pleasant outdoor setting in an inner yard of the institute, where many discussions took place over coffee and plenty of tasty Portuguese snacks.

An Early Career Scientist Social Event on Monday evening was fully booked and the attendees had the opportunity to expand their networks and discuss topics of relevance and concern with researchers at their career stage. The lively scientific discussions in a friendly atmosphere during the Joint Assembly were also complemented by the combined IAGA-IASPEI dinner in the middle of the week, that took place in a beautiful historical building, accompanied by some traditional music.

# First combined IAGA-IASPEI School for Early Career Scientists

Preceding the IAGA-IASPEI Joint Scientific Assembly 2025, the first combined IAGA-IASPEI School for Early Career Scientists took place at the Instituto Superior de Engenharia de Lisboa (ISEL), Lisbon, Portugal, from 25 to 29 August 2025. The School was a combination of the 7th IAGA School (series started in 2013, where more information can be found <a href="here">here</a>) and the IASPEI Early Career Scientific School (ECSS; a follow-up training activity in different formats connected with IASPEI Scientific Assemblies since 2001, where more information can be found <a href="here">here</a>). The Schools traditionally take place before or after IAGA, IASPEI, and IUGG Assemblies and are designed to provide early career scientists, mainly PhD students, with a basic understanding of a wide range of the scientific topics

covered by the respective association. This time, we took advantage of the Joint IAGA-IASPEI Assembly, in order to further promote interdisciplinary perspectives both groups had a combined half day of lectures and practical courses on legacy magnetic and seismological data, a joint outing to the Lisbon Quake Museum devoted to the 1755 Lisbon Earthquake and the historical developments resulting from the catastrophe, and partly common meals and coffee breaks. Furthermore, the students joined the general part of a demonstration of an ocean bottom seismometer.





The IAGA and IASPEI School students watching the demonstration of an ocean bottom seismometer

The IAGA School was attended by 18 participants from 15 different countries. The student selection for the IAGA School follows established guidelines: interested students have to apply to one of the six <u>IAGA Divisions</u>, normally the one that is closest to their scientific work. The call with deadline is published, e.g., on the <u>IAGA website</u> and through the IAGA social media channels.

The IAGA specific sessions were organised by seven international lecturers working on paleomagnetism, ionospheric, atmospheric, space plasma and space weather processes, geomagnetic field observation and modelling, and electromagnetic induction. Theoretical lectures were supported by practical computer exercises. IAGA lectures will be made available on <u>YouTube</u>.





Participants of the 7th IAGA School (left) and IASPEI School (right)

The IASPEI School was attended by 32 PhD students and early postdoctoral researchers from 20 countries.

This year, the program addressed the most recent challenges in Seismological Data, combining lectures and practical sessions delivered by international experts, and was structured around four main themes: Ocean-Bottom Seismometers (OBS), from deployment to data processing; Legacy Data, focusing on digitisation and use of analogue archives; EPOS Infrastructure, providing access to data portals and virtual research environments; and DAS & SOP Technologies, exploring seismic monitoring via submarine telecom cables. All exercises and slides, along with expanded documentation, will be shared with students afterwards to ensure they have appropriate reference material for future workshops.

The students participated enthusiastically and actively in the Schools, and lively discussions took place among students and with lecturers during coffee breaks and the common meals. Both Schools and the combined activities received positive feedback from the participants.

Monika Korte, IAGA Secretary General, and Johannes Schweitzer, IASPEI Secretary General

#### 5. IAPSO - Best Practice Study Groups 2026-2027: Call for Applications



The International Association for the Physical Sciences of the Oceans (IAPSO) is inviting applications for Best Practice Study Groups in the period 2026-2027. Each group will receive up to USD 12,000 towards the costs of a meeting. Proposals should reach the IAPSO Secretary General via email by 30 November 2025. The proposers of Best Practice

Study Group proposals will be notified by 31 December 2025 of the success or otherwise of their proposals.

### Purpose of an IAPSO Best Practice Study Group

An IAPSO Best Practice Study Group will address an issue whose resolution will assist in the conduct of oceanographic research. In carrying out oceanographic research, a choice must frequently be made between a few options for measuring data, analysing data, processing software, or modelling a system. The reasons for choosing between competing methods are often not well documented and the relative strengths and weaknesses of these routes are usually not published or well known.

Where it is thought beneficial to bring together experts in competing methods to make detailed comparison then IAPSO may be willing to fund such a face-to-face meeting. There should be a definite prospect that such detailed comparison and discussions will result in an agreed position statement or guideline that outlines the relative strengths of the methods, procedures or software. These will help oceanographic researchers to make the best choices to, for example, analyse their data.

IAPSO is seeking to support two IAPSO Best Practice Study Groups in the 2026-2027 period. Each IAPSO Best Practice Study Group should arrange a meeting of several days' duration where

consensus should be sought regarding the pros and cons of different techniques. Ideally, this consensus will result in a short technical guideline that will assist oceanographic researchers in making the best choices to, for example, analyse their data.

IAPSO recommends the successful groups make use of the repository of the <u>IOC Ocean Best Practices System</u> to survey existing documentation and experts related to the Best Practice topic. We expect that the final documentation created by the group will be made accessible via the IOC Ocean Best Practices System and undergo the GOOS endorsement process.

More information can be found <u>here</u>.

Hans van Haren, IAPSO President

#### 6. ISC/UN - Statement on Open Science

At its second annual retreat, the UN Secretary-General's Scientific Advisory Board (SAB) adopted a landmark statement on open science, with the International Science Council (ISC) serving as lead coordinator. The statement highlights open science as vital for research, for connecting science with policy and society, and for tackling global inequality, while warning that its benefits are at risk as barriers to international collaboration grow.



The statement can be downloaded <u>here</u>.

#### 7. ISC - Annual Report 2024



The International Science Council's (<u>ISC</u>) 2024 Annual Report is now available <u>here</u>. The report summarises all of the ISC's major activities in 2024, as well as those of its affiliated bodies, and includes the ISC's financial reporting for the year.

#### 8. Awards and Honours

# Geological Society of India

*Virendra M. Tiwari* (India), IUGG Bureau Member (2023-2027), was elected Vice President of the Geological Society of India (2026-2028).

#### Congratulations!

#### 9. Obituary

With great sadness IUGG reports the death of

**Abdelkrim (Karim) Aoudia**, Focal Point of The Abdus Salam International Centre for Theoretical Physics (ICTP) to IUGG (2011-2025). The obituary from ICTP can be found here.

#### 10. Important Deadlines

30 November 2025: Submit Nominations for IAPSO Best Practice Study Groups 2026-2027

15 December 2025: Submit Nominations for the CMG Keilis-Borok Medal 2026

15 December 2025: Submit Nominations for the ILP Awards 2026

31 December 2025: Submit Nominations for the IAHS International Hydrology Prize 2026

1 April 2026: Submit Applications for IUGG Grants Program 2026-2027

## 11. Meeting Calendar

This calendar includes meetings which are planned to be organised under the umbrella of IUGG, and major conferences of IUGG's partner organisations (in *italics*). The calendar is updated regularly and is also available <u>online</u>. If you would like to add a meeting, or report changes, please contact the IUGG Secretariat.

#### November

- 3-5, IAG, Athens, Greece, <u>IDS DORIS School and DORIS Days 2025</u>
- 6-7, IAG, Athens, Greece, DORIS Analysis Working Group Meeting
- 12-14, IUGG, IAPSO, IASPEI, IAVCEI, Hyderabad, India, <u>International Tsunami Symposium</u>
- 17-21, IAHS, Astana, Kazakhstan, <u>International Conference on 'Sediment and Pollutants'</u>
  <u>Transport in River Catchments: Radionuclides and Fingerprinting Techniques Applications</u>
  <u>for Assessment, Monitoring, and Risk Prevention'</u>
- 23-29, IASPEI, IAVCEI, Pucon, Chile, <u>Joint Commission on Volcano Seismology & Acoustics.</u>
  <u>Annual Workshop</u>
- 24-28, IUGG, IAMAS, Dakar, Senegal, Workshop on <u>'Data Science for Weather and Climate Research' and Training School on 'Climate Data Analysis and AI in the Global South'</u>

#### December

- 1-5, IUGG, IAPSO, Puerto Madryn, Argentina, <u>20th Oceanography Colloquium and 12th National Marine Sciences Conference</u>
- 15-19, AGU, New Orleans LA, USA, <u>AGU Fall Meeting 2025</u>

# **Next IUGG General Assembly 2027**



IUGG Electronic Journal Volume 25 Number 11 (1 November 2025)

Editors: Franz Kuglitsch, Mioara Mandea, Alexander Rudloff (Editor-in-Chief), and Kathy Whaler.