



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

## The IUGG Electronic Journal

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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 [here](#). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

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### 1. IUGG – The People at the Forefront (XL): Hans van Haren, President of the International Association for the Physical Sciences of the Oceans (IAPSO), 2023-2027

Although I have happily spent more than half my life on the island of Texel, I was born on ‘the other side’, i.e. the mainland of the Netherlands, in Utrecht in the middle of the country. After part of primary school and all of secondary school in and around Eindhoven, I returned to Utrecht for my university studies. Although mathematics and physics attracted me most, I preferred a rather tangible practical direction that I found in experimental physics, geophysics and more specifically physical oceanography. Following a hands-on laboratory Masters study on turbulent spots at the Technical University of Delft and a second Masters study on North Sea tidal data, I fortunately could start my PhD-position in observational oceanography under the supervision of Kees Veth and Jef



*Hans van Haren (left) with Trevor McDougall (right; IAPSO President 2019-2023) at the IUGG General Assembly 2023 in Berlin*

Zimmerman at NIOZ Texel. The island has been my base ever since, with a few longer stays abroad, postdoc positions in Canada with Chris Garrett and Neil Oakey, and many shorter ones, including visiting positions in Japan, France and Australia.

Living on an island means being close to the sea, including lovely cycling very near the inland-sea waters and enduring the occasional winter storm. The ultimate experience however, is actually being at sea, and deploying instrumentation in an attempt to learn more from observations about the ocean's deep interior. During the past three decades, I have led many national and international research cruises investigating the dynamical effects of density variations in the ocean, ranging from turbulent diapycnal mixing to internal waves. While the start was quite rough under conditions of many intense short North Sea cruises, later ocean-going cruises on board larger ships meant more endurable extensive research cruises.

Over time and on the basis of my physical oceanographic works, multidisciplinary interests also led me to study the impact of breaking internal waves on, for example, sediment transport and marine biology. As the focus has always been on sea-going observational studies, I still have an intense interest in the development of instrumentation such as high-resolution temperature sensors and complex mooring structures. One has to know what one measures before measuring becomes knowing.

Bycatches of my physical oceanographic research include deep-ocean lunar periodicity of zooplankton motions, human body sensitivity to temperature variations induced by internal waves near a, indeed Texel, beach, and establishment of the deepest seafloor point on Earth. Although I am not a biologist by training I am fascinated by research fields like clock biology. I have great concerns that mankind affects the vulnerable life in the deep-sea, which is still largely unknown to us. We should not explore benthic deep-sea for our own benefits.

After convening several oceanographic sessions at the European Geophysical Union and other international conferences, I have held a number of positions in relation to editorial work and have sat on editorial boards of scientific journals. Over the past years I have been pleased to participate on the Executive Committee of IAPSO and, since being president of IAPSO, in the EC of ISC's Scientific Committee on Oceanographic Research SCOR. After all, the Earth's oceans should be viewed internationally rather than simply linked to nations.

Since the ocean is vast and oceanographers are few, international collaboration is strongly needed in order to better understanding our planet. We still have a lot to learn about the state of the present-day ocean, notably from scarce observations that are difficult to make under difficult environmental conditions, to provide necessary input of the relevant physics processes to our models of the complex ocean circulation.

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## **2. IUGG – Yearbook 2025: Request for updates**

Corrections and updates to the information contained in the [IUGG Yearbook](#) for 2024 are now being finalised. Please contact the [IUGG Secretariat](#) by **30 November 2024** with additions and corrections. The IUGG Yearbook 2025 will be published in January 2025.

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### 3. IUGG ITALY – Uncertainties in natural hazard prediction

On 25-26 September 2024, the Italian National Committee organised a workshop on ‘Potentially hazardous natural events: models, uncertainties and communication’ at the CNR headquarters in Rome. The workshop analysed how the relevant scientific communities define, estimate, and communicate to decisionmakers and the public the uncertainties associated with different hazards.

Fernando Sansò opened the workshop with a talk on the probabilistic view of the world, and was followed by nine speakers who discussed how uncertainties are considered and managed in a variety of fields, including meteorological, hydrological, and glacial hazards, landslides, mega-droughts, coastal flooding and seawater intrusion, volcanic eruptions, tsunamis, and hazards related to the Sun-Earth interaction.

Around 90 people attended the two-day workshop, including expert scientists, PhD students and post-docs. The workshop allowed for a lively discussion, organised in two long, dedicated sessions. The Italian National Committee is working to distil the results of the discussions in a report that will form the basis for a new workshop dedicated to the communication of uncertainties about natural hazards and their prediction to the media, decision and policy makers, and the public.

Fausto Guzzetti, President of the IUGG National Committee for Italy

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### 4. IUGG ASSOCIATIONS – Scientific Assemblies 2025: Important Deadlines

In 2025, our eight Union Associations will organise the following (joint) Scientific Assemblies in chronological order:



[Geneva, Switzerland](#)  
[29 June-4 July 2025](#)

Grant Submission Deadline:

**15 November 2024**

Abstract Submission Deadline:

**20 December 2024**



[Busan, Rep. of Korea](#)  
[20-25 July 2025](#)

Abstract/Grant Submission  
Deadline: **15 February 2025**



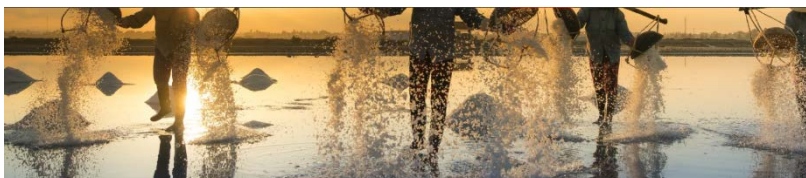
[Lisbon, Portugal](#)  
[31 August-5 September 2025](#)

Abstract/Grant Submission  
Deadline: **12 March 2025**



[Rimini, Italy](#)  
[1-5 September 2025](#)

Abstract Submission Deadline:  
**15 March 2025**



[Roorkee, India](#)  
[5-10 October 2025](#)

Deadlines: TBD

#### IAHS News

#### Save the date: IAHS 2025 Scientific Assembly

The XII<sup>th</sup> Scientific Assembly of the International Association of Hydrological Sciences (IAHS 2025) will take place in Roorkee, India from 5 to 10 October 2025.

## 5. IAGA – New Web Series: The Geomagnetic Grand Spectrum

The IAGA Interdivisional Commission on Education and Outreach is thrilled to announce the launch of the first part of the IAGA-awarded outreach project, 'A Magnetic Journey: From Core to Space'. IAGA premieres the 'Geomagnetic Grand Spectrum' web series, which features experienced researchers discussing the time variations of the geomagnetic field - ranging from long-term changes over millions of years to rapid fluctuations within milliseconds. The series is designed to connect all IAGA divisions by focusing on a different division each week and inspire non-specialist audiences worldwide. We invite you to explore the series [here](#) and share it with others.

Stay tuned for the second half of this project in the new year, which will feature early career scientists from the 6th IAGA school talking about their research and their personal journeys to work on IAGA topics.



Barbara Leichter and Katia Pinheiro,  
on behalf of the IAGA Interdivisional Commission on Education and Outreach

## 6. IAHS – Next Biennium Chair of IAHS HELPING Decade: Open Call

Take the lead for the next biennium of the IAHS Science for Solutions Decade dedicated to water solutions in the Anthropocene.

### Background



The third IAHS Scientific Decade, [HELPING](#) (Hydrology Engaging Local People **IN** one Global world) was launched in 2023 with the first biennium chaired by IAHS President Berit Arheimer. This decade is a bottom-up process empowered by local hydrologists and scientists using open science and local data/methods when solving local water problems. The first biennium has already achieved a great deal with the formation of [29 Working Groups](#) with over 1,000 members and the publication of the [visionary community paper](#) in the *Hydrological Sciences Journal*.

HELPING underpins solutions for the water crisis, leaving no catchment or hydrologist behind, in search for scientific evidence to:

- Accelerate the understanding of the linkages between hydrological processes at local and global scales and their interaction with water resources.
- Engage with local scientists and societies to learn from local experience, differences in hydrological processes and change around the world, and transfer solutions globally.
- Synthesise hydrological understanding across the globe and underpin the management of current crises by finding holistic solutions to mitigate future crises.

### **Leadership**

Continuing in the same format as previous [IAHS Scientific Decades](#) the Chair serves for two years. IAHS is therefore now looking for a talented leader who is familiar with IAHS and willing to serve as Chair of the second biennium.

The Chair is responsible for:

- Promoting the IAHS HELPING Decade
- Coordinating the activities of the Working Groups via the three Theme leaders
- Leading, initiating and synthesising the publication of community papers from the Decade
- Reporting annually on the HELPING process to the IAHS Bureau

The applicants should have documented leadership experience and be active in water solutions research in line with the HELPING vision and working groups. Such research could for instance be encompassing interaction between local and global hydrological change, or developing holistic solutions for water security, or elaborating and applying co-creation processes.

To be considered please send an e-mail to the [IAHS secretariat](#) by **8 November 2024** with the following attachments:

- cover letter no longer than one page outlining your relevant experience and aspirations for HELPING
- a resumé of CV no longer than two pages.

Jean-Marie Kileshye Onema, IAHS Secretary General

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## **7. IAHS – Awards: Calls for Nominations**

Nominations are now being accepted for the IAHS [International Hydrology Prize](#), [Tison Award](#), and [Falkenmark Award](#).

### **International Hydrology Prize**

This prize is awarded annually by IAHS, with UNESCO and WMO, to two people who have made an outstanding contribution to hydrological science. Two medals are awarded under the International Hydrology Prize: the Dooge Medal and the Volker Medal. Both medals are intended to distinguish outstanding achievements by hydrological scientists but with a different focus. The Dooge medal is aimed at fundamental contributions to the science of hydrology, whereas the Volker medal is aimed at outstanding applications of hydrological science for the benefit of society at large. More information, including the list of previous awards and the nomination process, is available [here](#).



### **Tison Award**

Léon Tison was a former Secretary-General and Honorary President of the International Association of Hydrological Sciences. The Award was established in 1982 and aims to promote excellence in research by young hydrologists. The Award will be granted for an outstanding paper published by IAHS in a period of two years previous to the deadline for nominations. More information, including the eligibility criteria and list of previous awards, is available [here](#).

### **Falkenmark Award**

Established in 2022 and named in honour of the late Malin Falkenmark, a professor of Applied and International Hydrology. She was best known for her long-standing work and expertise on the sustainable use of water resources to meet human and ecosystem needs. Her work is characterized by pioneering integration of both natural- and social-science approaches in global perspectives. She was particularly known for developing the Falkenmark Water Stress Indicator, concepts of Blue and Green water and Comparative hydrology. The IAHS Falkenmark Award is for best PhD thesis from a nominee who grew up in and recently performed the PhD work in one or more financially disadvantaged countries. More information, including the eligibility criteria and list of previous awards, is available [here](#).

Nominations for all the awards should be received by the Secretary General, Jean-Marie Kileshye Onema at [jmkileshye-onema@waternetonline.org](mailto:jmkileshye-onema@waternetonline.org), no later than **31 December 2024**.

Jean-Marie Kileshye Onema, IAHS Secretary General

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### **8. AGU – New Ethical Framework for Geoengineering Research**

As interest grows in climate intervention as a strategy for tackling global warming, the American Geophysical Union (AGU) has facilitated an ethical framework as a guide to responsible decision-making and inclusive dialogue. The report, [Ethical Framework Principles for Climate Intervention Research](#), is now officially launched.

The framework was developed over two years, under the guidance of an advisory board of more than 40 international experts from a wide range of disciplines, with extensive public consultation worldwide. It reflects contributions from hundreds of scientists, policymakers, ethicists, government agencies, non-governmental organisations, the private sector and communities that could be disproportionately affected by climate change interventions. It proposes that all new research plans, funding decisions and policy proposals should meet five key principles:

1. Responsible Research
2. Holistic Climate Justice
3. Inclusive Public Participation
4. Transparency
5. Informed Governance

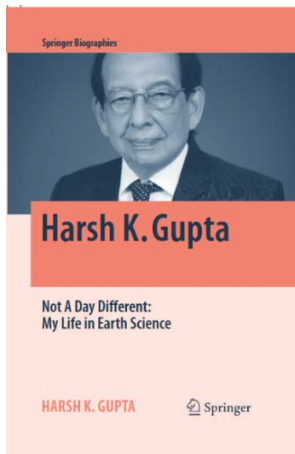


*IUGG partners with AGU in the group of Global Geoscience Societies. In this context, IUGG also published a resolution on 'Weather and Climate Engineering Based on the Addition of Aerosol Particles' (see [here](#); pages 4-5) in 2023.*

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## 9. Publication – Harsh K. Gupta. Not A Day Different: My Life in Earth Science (IUGG President 2011-2015)

[This book](#) captures the essence of one of the most remarkable journeys of a professional who prevailed over numerous challenges and adverse situations that appeared before him from nowhere and how he emerged victorious to be hailed at a global forum of the American Geophysical Union in 2008. The author reflects upon the circumstances and times in post-independent India that threw him out of the comforts of a well-to-do family into the real world. He traces back his entry into the field of earthquake science and dwells at length upon the scope and freedom it offered for innovative thinking in the field with limitless opportunities.



Mishaps and accidents paved the way to remarkable discoveries and achievements including the creation of the world record for establishing and populating India's first permanent base station in Antarctica in a record time of one Antarctic summer despite having a near-fatal helicopter crash on 4th day after reaching Antarctica. Stressing the need to live safely with earthquakes as their short-term prediction is not a possibility yet, the author advocates a two-prong strategy of directly looking into the earthquake source region deep inside the earth and developing an earthquake-resilient society, simultaneously. He cites the success story of the Indian Tsunami Early Warning System that is operational in the Indian Ocean, today. The book inspires young professionals with a flair for challenges and a burning desire to achieve results at any cost.

This book provides important information in a nutshell about artificial water reservoir triggered earthquakes, India's building of the Dakshin Gangotri all-weather station in Antarctica, Indian Ocean Tsunami warning set-up, Low-Temperature Thermal Desalination, etc. The main objective of the book is to inspire a generation of young minds through a narration of scientific achievements that did not come easily to him. The aim is to tell them the difference between a reaction and a response to a given situation, the former being impulsive and irrational and the latter responsible and rational.

(Excerpted from the book's blurb)

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## 10. Awards and Honours

**Mioara Manda** (France), IUGG President-Elect (2023-2027), was awarded the BRGM Dolomieu Prize of the French Academy of Sciences for her outstanding achievements in research and innovation.

***Congratulations!***

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## 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 [online](#). If you would like to add a meeting, or report changes, please contact the [IUGG Secretariat](#).

### **November**

- 3-7, IUGG, IASPEI, Belek, Türkiye, [15th General Assembly of the Asian Seismological Commission](#)
- 4-7, IUGG, IAHS, Florianópolis, Brazil, [9th International Water Resources Management Conference of the International Association of Hydrological Sciences; 14th International Workshop on Statistical Hydrology of the International Association of Hydrological Sciences; and 1st Encontro Brasileiro de Hidrologia Estatística](#)
- 4-8, GRC, Suva, Fiji, [GeTEWS Oceania 2024](#)
- 4-8, IAVCEI, San Pedro de Atacama, Chile, [1st International Monogenetic Conference](#)
- 6-8, IAG, Manila, Philippines, [IAG Workshop on Asia Pacific Gravity, Geoid, and Vertical Datums](#)
- 10-14, IAMAS, Goa, India, [9th SOLAS Open Science Conference](#)
- 11-14, UNESCO-IOC, IUGG, Banda Aceh, Indonesia, [2nd UNESCO IOC Global Tsunami Symposium](#)
- 18-21, IAG, Bogota, Colombia, [SIRGAS 2024](#)

### **December**

- 9-13, AGU, Washington DC, USA, [AGU Fall Meeting 2024](#)

### **Association Scientific Assemblies 2025**

- 29 June – 4 July, IAVCEI, Geneva, Switzerland, [IAVCEI Scientific Assembly 2025](#)
- 20-25 July, IACS, IAMAS, IAPSO, Busan, Rep. of Korea, [IACS-IAMAS-IAPSO Joint Scientific Assembly 2025](#)
- 31 August – 5 September, IAGA, IASPEI, Lisbon, Portugal, [IAGA-IASPEI Joint Scientific Assembly 2025](#)
- 1-5 September, IAG, Rimini, Italy, [IAG Scientific Assembly 2025](#)
- 5-10 October, IAHS, Roorkee, India, [IAHS Scientific Assembly 2025](#)

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