



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

## **The IUGG Electronic Journal**

**Volume 22 No. 12 (1 December 2022)**

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 – Bureau and Finance Committee (2023-2027): Candidates**

On 11 November 2022, the IUGG Nominating Committee announced the names of candidates for election as IUGG Bureau and Finance Committee Member (2023-2027). The election will take place at the [IUGG General Assembly 2023](#) in Berlin, Germany:

<b>President-Elect</b>	Alik ISMAIL-ZADEH (Germany, IASPEI) Mioara MANDEA (France, IAGA)
<b>Secretary General</b>	vacant
<b>Treasurer</b>	Niels ANDERSEN (Denmark, IAG)

## **Bureau Members**

### ***Positions #1, #2, and #3***

Eduard PETROVSKY (Czech Republic, IAGA)

Corina RISSO (Argentina, IAVCEI)

Virendra TIWARI (India, IAG)

Yi-Gang XU (China, IAVCEI)

## **Finance Committee Members**

*Position #1:* Priscilla GREW (USA, IAVCEI)

*Positions #2 and #3:* vacant

The officers of the Union and Associations, and the National Adhering Bodies for IUGG may make further nominations and/or recommendations to the Nominating Committee by **11 April 2023**. Any new nominations for a given position, supported by at least three Presidents or equivalent officers of National Committees of Member Countries, and accompanied by the written acceptance of candidates and a resumé outlining their position, research interests and Union related activities, shall be added to the list above.

If you have any question concerning the nomination procedure, please contact the [IUGG Secretariat](#).

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## **2. IUGG – Final Call for Invitations to Host the 29th IUGG General Assembly in 2027**

Proposals to host the 29th IUGG General Assembly in 2027 are still being accepted and must be submitted to the [IUGG Secretariat](#) by **11 January 2023** (six months before the next General Assembly, consistent with IUGG By-Law 6). The [requirements](#) and [guidelines](#) for the proposals are available. All proposals will be evaluated by the [Site Comparison Committee](#), and a report will be given to the IUGG Council before its final vote. The IUGG Council, at its meeting during the [28th IUGG General Assembly](#) in Berlin, Germany, in July 2023, will make the final selection of the venue of the 29th IUGG General Assembly.

For more information, please contact the [IUGG Secretariat](#).

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## **3. IUGG – Final Call for Proposals for Changes of Statutes and By-Laws**



Adhering Bodies of IUGG Member Countries and IUGG Bureau Members are now invited to [submit](#) proposals for changes to the [Statutes and By-Laws](#). You are encouraged to review the Statutes and By-Laws and to determine whether they require revision to improve the Union's operations. The deadline for submissions is **11 January 2023**.

Any changes to the Statutes and By-Laws need to be approved by the IUGG Council at its next meeting during the [IUGG General Assembly 2023](#) from 11 to 20 July 2023 in Berlin, Germany.

For more information, please contact the [IUGG Executive Secretary](#).

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#### 4. IUGG – Early Career Scientist Awardees 2023

On 7 November 2022, IUGG announced the ten winners of the Early Career Scientist Awards for their outstanding research in Earth and space sciences and for international research cooperation:

**Mohd Farooq Azam** (Glaciology/Hydrology, Indian Institute of Technology – Indore, India)  
*for his efforts to raise Indian glaciology to international levels, for his boundless interest in Himalayan glacio-hydrology leading to reference review articles and long-term glacier monitoring.*

**Jana H. Börner** (Geomagnetism, Freiberg University of Mining and Technology, Germany)  
*for her contributions to electromagnetic geophysics and laboratory-based petrophysics for understanding complex environments and reactive systems.*

**Jayashree Bulusu** (Geomagnetism, Indian Institute of Geomagnetism, India)  
*for her path-breaking contributions to understanding low-latitude phenomena in the magnetosphere.*

**Johan Gaume** (Glaciology, Swiss Federal Institute of Technology, Switzerland)  
*for his seminal work on snow avalanche modeling from the initial crack in the snowpack to the full slope release and for interdisciplinary and innovative studies of geophysical mass flows.*

**Jose Társilo Girona Hernandez** (Volcanology, University of Alaska Fairbanks, USA)  
*for his pioneering and innovative approaches for studying the degassing and eruptive behavior of volcanoes by combining remote sensing, numerical modeling and machine learning.*

**Natalya Gomez** (Glaciology/Ocean Sciences, McGill University, Canada)  
*for her seminal contributions to our understanding of the connections between the cryosphere and sea level change, at the border of geophysical and climate sciences.*

**Patrick Hupe** (Atmospheric Sciences/Seismology, Federal Institute for Geosciences and Natural Resources, Germany) *for his transdisciplinary work which bridges meteorology, acoustics, and seismology, laying the foundation for future research in his field.*

**Christina Karamperidou** (Atmospheric Sciences, University of Hawaii, USA)  
*for her significant contributions to understanding El Niño spatio-temporal diversity and associated impacts, from paleoclimate to modern times through multidisciplinary international collaborations.*

**Xingxing Li** (Geodesy, Wuhan University, China)  
*for his innovative contributions in improving GNSS precise positioning and orbit determination, significantly extending the high-precision GNSS applications in geosciences.*

**Norimitsu Nakata** (Seismology, Lawrence Berkeley National Laboratory and Massachusetts Institute of Technology, USA) *for his innovative research using seismic ambient noise by pioneering a high-resolution body-wave tomography and finding time-lapse changes of subsurface elastic parameters.*

The IUGG Early Career Scientist Awards 2023 will be presented during the Award Ceremony of the [IUGG General Assembly 2023](#) in Berlin, Germany.

***Congratulations!***

## International Jury

The [Early Career Scientist Award Committee \(2023\)](#) was chaired by Katrin Schröder (Italy; IAPSO). The Members of the Committee were Keith Alverson (Canada; IAMAS), Marie Dumont (France; IACS), Julia Eychenne (France; IAVCEI), Michelle Grobbelaar (South Africa; IASPEI), Paola Passalacqua (USA; IAHS), Prasanta Patro (India; IAGA), Peiliang Xu (Japan/China; IAG), and Thorsten Wagener (Germany; IUGG).

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## 5. IUGG – Executive Secretary. A decade in service.

The IUGG Bureau, on behalf of the IUGG community, congratulates and thanks Franz Kuglitsch, IUGG Executive Secretary, for his tireless efforts and extremely effective performance over the last decade. Franz joined the IUGG as Executive Secretary in November 2012 when the IUGG Secretariat was established at the German Research Centre (GFZ) in Potsdam, Germany. The IUGG Secretariat is the information centre of IUGG, it implements the organisation plans, oversees the daily management of the Union, prepares business meetings, represents the Union at conferences, publishes documents, and supports the engagement of National Members in the Union's and Associations' activities.



*Franz Kuglitsch, IUGG Executive Secretary (left), receives the certificate of honour from Alexander Rudloff, IUGG Secretary General (right) at the GFZ*

More information about Franz can be found [here](#) (pages 3-4).

On this occasion, the IUGG thanks GFZ and the German Research Foundation (DFG) for their generous and continuous support.

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## 6. IUGG – Exhibition Booth at the AGU Fall Meeting 2022

Learn more about the [IUGG General Assembly 2023](#) and about the Union in general and meet us at the exhibition booth (No. 1450) at the 2022 [Fall Meeting of the American Geophysical Union](#) (AGU). The Fall Meeting will be held in Chicago, USA, and online from 12 to 16 December 2022.





## 7. IUGG2023 – Updates: Abstract Submission and Travel Grants

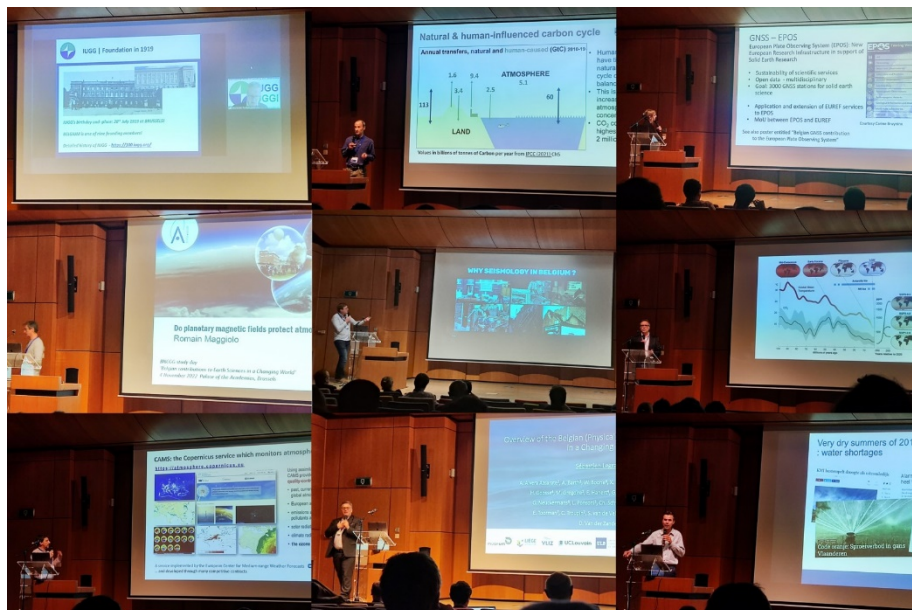


[Submit](#) your abstract for the [IUGG General Assembly 2023](#) by **14 February 2023** and learn more about the [Travel Grants Program](#) which was established to support students, early career scientists, and attendees from [low and low-middle-income countries](#) (according to OECD definition) with an accepted abstract. For the travel grant application, please remember your abstract number and the abbreviated name of the symposium where your abstract was submitted to.

## 8. IUGG Belgium – Study Day on Belgian Contributions to Earth Sciences in a Changing World: Meeting Report

The Belgian National Committee for Geodesy and Geophysics ([BNCGG](#)), the Belgian adhering body to IUGG, organised a study day on 4 November 2022 in Brussels aiming at bringing together the Belgian Earth sciences community, and to showcase ongoing contributions to international programmes in each of the eight associations of the IUGG. The venue of the symposium was the Palace of the Academies, the same building where the IUGG was founded on 28 July 1919 when Belgium was one of the nine founding members. The [study day](#) was conceived as a mixture of plenary presentations for each of the eight associations and lengthy poster sessions aimed in particular at PhD students and postdocs.

*Composite picture of the plenary presentations. From left to right, and from top to bottom: Alexander Rudloff (IUGG), Richard Allan (keynote), Véronique Dehant (IAG), Romain Maggiolo (IAGA), Thomas Lecocq (IASPEI), Frank Pattyn (IACS), Simon Chabrillat (IAMAS), Sébastien Legrand (IAPSO), and Patrick Willems (IAHS)*



The welcome address was given by Alexander Rudloff, IUGG Secretary General, who reminded the audience about the historical role of Belgium in the Union and gave a good overview of the mission and structure of IUGG. The keynote lecture was delivered by Richard Allan from the University of Reading, UK, and focused on the global water cycle by means of Earth Observation Data and climate prediction models. This was followed by talks focusing on all of the associations, which gave an excellent overview of Belgian scientific highlights in each of the respective research fields. The symposium was attended by 80 scientists and 50 posters were presented.

Philippe Huybrechts, President of BNCGG, on behalf of the Organising Committee.

## 9. Radiation Belt Dynamics and Remote Sensing of the Earth's Plasmasphere: Meeting Report

The course “Radiation Belt Dynamics and Remote Sensing of the Earth's Plasmasphere” of the International School of Space Science took place at the University of L'Aquila, L'Aquila, Italy, from 26 to 30 September 2022. It was organised by János Lichtenberger (Eötvös Loránd University, Budapest, Hungary), Geoffrey Reeves (Los Alamos National Laboratory, USA), and Massimo Vellante (University of L'Aquila, L'Aquila, Italy).

The course consisted of 15 lectures (90 mins each; including questions and discussion) given by 15 leading scientists in the field (seven from Europe, seven from the USA, and one from New Zealand). It provided an overview of the current knowledge of the radiation belts (a key space weather region), and in particular on its related energisation and loss processes due to wave-particle interactions, and particle precipitation into the atmosphere. It also covered several aspects of the plasmasphere dynamics and the inter-relationship between these two magnetospheric regions. A few lectures were also dedicated to the use of the most advanced techniques of data analysis for the detection and quantification of the phenomena under study. All lessons will become available at the [ISSS website](#).

The course was attended by 33 students (29 in presence and 4 online) who were selected on the basis of their curricula vitae: 12 were from Italy, 13 from other European countries, three from the USA, two from Brasil, one from Australia, one from Algeria, and one from India. 18 were PhD students. The students had also the opportunity to present their current research activity in the form of posters which were displayed near the Conference Hall for the duration of the course. The course took place in a friendly atmosphere with many opportunities for close interaction between students and lecturers.

The IUGG financial support was used for the course organisation and for supporting the participation of students from Poland, Brazil, and France at reduced rates.



*Participants of the course “Radiation Belt Dynamics and Remote Sensing of the Earth's Plasmasphere”*

Massimo Vellante, Director of the Course, and  
Umberto Villante, Director of the International School of Space Science

## 10. Association Awards – Call for Nominations

### *IACS: Early Career Scientist Award*

This prize is given for a scientific paper focused on a cryospheric topic represented by any of the current IACS divisions or IACS standing groups. The nominee must be an early career scientist defined as a person who is currently enrolled in a PhD/MSc program or (if no longer a PhD/MSc student) whose highest academic degree (PhD, MSc) was obtained no longer than two years before the submission deadline.

Nominations to be submitted by **1 February 2023**. More information about the award is available [here](#).

### *IAGA: Early Career Award, Long Service Medal, and Shen Kuo Award*

The IAGA Early Career Award is given to early career scientists who have made outstanding contributions at specialist meetings and workshops for which IAGA is a major sponsor.

The IAGA Long Service Medal honours outstanding long-term service to the IAGA community in technical or managerial positions.

The Shen Kuo Award acknowledges outstanding scientists whose activities and achievements advanced the fields of research covered by IAGA.

Nominations for all three awards to be submitted by **31 December 2022**. More information about the awards is available [here](#).

### *IAHS: International Hydrology Prize*

The International Hydrology Prize is awarded annually by IAHS, together with UNESCO and WMO, to two people who have made an outstanding contribution to hydrological science.

Nominations to be submitted by **31 December 2022**. More information about the award is available [here](#).

### *IAPSO: Early Career Scientist Medals*

This award honours early career scientists for their outstanding research in the physical or chemical sciences of the oceans, and for their cooperation in international research.

Nominations to be submitted by **10 January 2023**. More information about the award is available [here](#).

### *IASPEI: Medal*

The IASPEI Medal is awarded for sustaining IASPEI goals and activities and for scientific merits in the field of seismology and physics of the Earth's interior.

Nominations to be submitted by **28 February 2023**. More information about the award is available [here](#) (page 7).

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## 11. ILP Awards – Call for Nominations

### *Evgueni Burov Medal*



In honour of Evgueni Burov, the International Lithosphere Program ([ILP](#)) established a medal recognising pioneering contributions by mid-career scientists. The aim of the Evgueni Burov Medal is to promote high class solid Earth science in combination with community service. The Evgueni

Burov Medalist will be honoured with a dedicated event during the [EGU General Assembly 2023](#).

### *Flinn-Hart Award*

The Flinn-Hart Award is presented by the ILP Bureau to an outstanding young scientist for contributions to the solid Earth sciences covered by ILP. It consists of a travel grant and a citation, and aims to encourage the participation of promising young scientists in the Program.

The nomination guidelines can be found [here](#).

All proposals must be received by the [ILP Secretariat](#) by **15 January 2023**.

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## 12. Awards and Honours

**Shuanggen Jin** (China), Chair of the Union Commission on Planetary Sciences (UCPS), was elected Fellow of the African Academy of Sciences (AAS).

**Mioara Manda** (France), President of the International Association of Geomagnetism and Aeronomy (IAGA), was elected Member of the European Academy of Sciences (AAS).

**Trevor McDougall** (Australia), President of the International Association for the Physical Sciences of the Oceans (IAPSO), was awarded Australia's prestigious [Prime Minister's Prize for Science](#).

### *Congratulations!*

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## 13. Obituary

With great sadness IUGG reports the death of

**Patricio Bernal**, the scientist and Executive Secretary of the UNESCO Intergovernmental Oceanographic Commission (IOC; 1998-2009) who made outstanding contributions to ocean science. In particular, his role in the development of the Indian Ocean Tsunami Early Warning System was of great importance. An obituary can be found [here](#).

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## 14. Important IUGG Deadlines

- 11 January 2023:** [Submit proposals to host the IUGG General Assembly in 2027.](#)  
**11 January 2023:** [Submit proposals for changes to the Statutes and By-Laws.](#)  
**31 January 2023:** [Submit draft resolutions for IUGG2023.](#)  
**14 February 2023:** [Submit abstracts for IUGG2023](#) and [apply for travel grants.](#)  
**28 April 2023:** [Register as early bird for IUGG2023.](#)
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## 15. Meeting Calendar

This calendar includes meetings which are planned to be organised in the next three months under the umbrella of IUGG, and major conferences of IUGG's partner organisations. 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](#).

### *December 2022*

- 9-12, IAHS, Zhuhai City, China, [IAHS-ICWQ International Workshop on Flood-drought chain disasters and water ecological degradation in a changing environment](#)
- 12-16, AGU, Chicago IL, USA, [AGU Fall Meeting 2022](#)

### *January 2023*

- 30-3 February, IAVCEI, Rotorua, New Zealand, [IAVCEI Scientific Assembly](#)

### *February 2023*

- 19-24, IUGG, IAVCEI, Morelia, Mexico, [Celebrating the 80th anniversary of Parícutin volcano](#)

### *IUGG General Assembly 2023*

- 11-20 July 2023, IUGG, Berlin, Germany, [IUGG General Assembly 2023](#)
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*IUGG Electronic Journal Volume 22 Number 12 (1 December 2022)*

Editors: Tom Beer, Franz Kuglitsch, Chris Rizos, and Alexander Rudloff (Editor-in-Chief).