



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

## **The IUGG Electronic Journal**

**Volume 23 No. 7 (1 July 2023)**

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 – General Assembly 2023: Updates**

#### ***Accommodation***

Selected hotels at negotiated rates are now available [here](#). Rooms are available from 10 to 20 July 2023. All other dates are upon request and subject to room availability.

#### ***Childcare Service for Ages 1-12***

The IUGG is committed to providing a good meeting experience for attendees bringing their children to Berlin, therefore childcare facilities will be available at the conference venue CityCube from 12 to 19 July. If interested, please fill in the [form](#) and the organisers will get back to you with further information.

#### ***Code of Conduct Policy***

IUGG opposes any discrimination or harassment based on age, citizenship, disability, ethnic origin, gender identity, language, political or other opinion, religion, or sexual orientation. The [IUGG General Assembly 2023](#) will follow Anti-Harassment Guidelines to prevent any form of harassment or discrimination, and to ensure an inclusive atmosphere that encourages the free expression and exchange of scientific ideas and results. The code of conduct policy is available [here](#).

#### ***Exhibition***

Visit our [exhibitors](#) in Hall B from 13 to 17 July (10:00 AM to 06:30 PM).





### **Registration**

Are you planning to attend the [IUGG General Assembly 2023](#) only for a short time? It is now possible to [register](#) also for a single day and a four day period.

### **Volunteer Opportunities**

Are you a student and wish to get free access to the [IUGG General Assembly 2023](#)? Become a volunteer by expressing your interest [here](#)!

For more information, please visit the [IUGG2023 website](#) or contact the [IUGG2023 Secretariat](#).

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## **2. IUGG – National Committee Reports**

### ***IUGG CROATIA – Quadrennial Report 2019-2022 of the National Committee***



During the four-year interval, Croatian scientists were active in Geodesy and in five geophysical disciplines (Geomagnetism and Aeronomy, Hydrology and Physical Limnology, Meteorology, Physical Oceanography, and Seismology). Their work has been shaped by at least three external factors. One of them was COVID-19 pandemic, which, on the one hand, has adversely affected field work in various disciplines, e.g., due to frequent postponement of research cruises, but, on the other hand, has stimulated analysis of data, modelling activities and publication of the results thus obtained. The other factor was a series of earthquakes, the strongest ones being the Zagreb earthquake on 22 March 2020 and the Petrinja earthquake on 29 December 2020. Again, the consequences were twofold. The earthquakes had resulted in serious damage to numerous buildings housing faculties and institutions in Zagreb, which has led to demanding reconstruction work, and even to relocation of several research groups. Still, the Croatian geophysicists and geodesists reacted to the earthquakes in a proper way: the seismological networks were considerably expanded, the earthquakes and the corresponding aftershocks were carefully recorded and studied, the seismological studies were complemented by the remotely sensed data analysed by geodesists, and a possible influence of earthquake-generated noise on the quality of geomagnetic data was explored. Finally, also important for the shaping of research work were weather- and climate-related extremes in the atmosphere and hydrosphere. Consequently, the relevant observation networks were modernised, extreme events (e.g., heat waves, droughts, heavy precipitation episodes and consequent flash floods) were analysed and modelled, and the coastal floods due to sea level rise and exceptional atmospheric conditions were analysed by using a decomposition method that had been developed in Croatia but is now increasingly used in other countries. The Quadrennial Report 2019-2023 of the Croatian National Committee can be found [here](#).

Mirko Orlić, President IUGG National Committee for Croatia

### ***IUGG GREECE – Quadrennial Report 2019-2022 of the National Committee related to IAG and IAGA***

This [report](#) was prepared as part of the national report of the Committee of Geodesy and Geophysics of Greece, on the occasion of the 28th General Assembly of the International Union of Geodesy and Geophysics (IUGG) which will be held in Berlin, Germany, 11 to 20 July 2023.



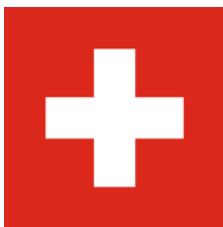
The first part of the report presents the geodetic activities and the progress achieved in Geodesy by Greek Universities, Research Institutions and National Agencies for the period 2019-2023. All the Geodesy-related research studies and contributions to national and international scientific projects, working groups and editorial boards lay mainly within the scope of the four Commissions of the International Association of Geodesy (IAG) (Commission 1: Reference Frames, Commission 2: Gravity Field, Commission 3: Earth Rotation and Geodynamics, Commission 4: Positioning and Applications).

The second part of the report presents the research activities in Geomagnetism and Aeronomy and the progress achieved by Greek Universities and Research Institutions during the reporting period 2019-2023. The report is structured in sections that correspond to the Divisions of the International Association of Geomagnetism and Aeronomy (IAGA).

We would like to express our sincere thanks to all colleagues for their contributions to this report.

Ilias N. Tziavos, IAG National Correspondent for Greece  
Ioannis A. Daglis, IAGA National Correspondent for Greece

### ***IUGG SWITZERLAND – Quadrennial Report 2019-2022 of the Swiss Geodetic Commission***



The Swiss Geodetic Commission (SGC) is an organisation within the Swiss Academy of Sciences (SCNAT). It is devoted to research into scientific problems of Geodesy including the transfer to practical applications in national surveying. Of particular importance is the promotion of international cooperation and national coordination. The SGC has close links to the Swiss Geophysical Commission, in particular in the field of gravimetry where research projects are being pursued jointly on an interdisciplinary basis.

For the compilation of the national report covering the scientific activities of the past 4 years it was decided to follow the structure of previous national reports and divide it into 4 commissions according to the structure of the International Association of Geodesy (IAG):

- 1 - Reference Frames
- 2 - Gravity Field
- 3 - Earth Rotation and Geodynamics
- 4 - Positioning & Applications

These main chapters were compiled by an editorial staff consisting of E. Brockmann (Commission 1), U. Marti (Commission 2), M. Rothacher (Commission 3), B. Merminod (Commission 4). Our special thanks go to J. Mueller-Gantenbein, secretary of SGC, for the careful editing and preparation of the layout. Without her efforts this report could not have been realised in due time.

The Quadrennial Report can be downloaded [here](#).

The SGC expresses its thanks to all colleagues who have contributed to this report and who are promoting Geodetic Sciences in Switzerland. Financial support was provided by the SCNAT. Its valuable help is gratefully acknowledged.

On behalf of the Swiss Geodetic Commission, June 2023

Adrian Jäggi, President SGC  
Urs Marti, Vice-President SGC

## *IUGG UK – Annual Reports 2021 and 2022 of the National Committee*

The IUGG National Committee for the UK, comprising representatives of all eight IUGG Associations, helps coordinate and promote IUGG activities with the associated UK Learned Societies. UK membership fees for IUGG are funded by an annual application to the Royal Society's International Organisation Membership Fees Grant scheme, and is put together by the Chair of the National Committee in collaboration with the IUGG Secretariat. To help deliver its mandate, the National Committee holds annual meetings on specific themes with special invitees. In 2021, the meeting theme was increasing interactions between IUGG Associations and UK Learned Societies. The 2022 meeting focused on infrastructure for IUGG science. Each UK National Representative identified the international science infrastructure associated with their particular Association and also highlighted UK infrastructure needs. A broad definition of 'infrastructure' was used, including field observatories, equipment, scientific services, data and data products and centres. It was noted that future science infrastructure needs to consider personnel and data handling, archiving and access, as well as equipment.



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UK-based scientists continue to play an active role in IUGG, contributing to the re-formatting of in-person meetings that were affected by the COVID-19 pandemic, particularly in 2020 and 2021. UK-based scientists hold IUGG leadership roles and posts, including IUGG President (Kathryn Whaler), IACS Secretary General (Richard Essery), IAPSO Early Career Scientist Working Group Chair (Alejandra Sanchez-Franks), and IUGG Liaison Officers (Denise Smythe-Wright, John Turner and Kathryn Whaler). The UK also hosts a number of IUGG Associations and related services for the international science community. These include the Permanent Service for Mean Sea Level (PSMSL) of the IAG responsible for the collection, publication, analysis and interpretation of sea level data from the global network of tide gauges; the IAPSO Standard Seawater Service - the only internationally recognised standard for the calibration of salinity measurement devices; the IAHS office based at the UK Centre for Ecology & Hydrology (Wallingford); and the International Seismological Centre (ISC) which has strong links with IASPEI. More information about the activities of the IUGG National Committee for the UK are in our [2021](#) and [2022](#) annual reports.

Kate Heal, Chair IUGG National Committee for the UK

*IUGG National Committees are invited to [submit](#) their annual/quadrennial reports at any time. Council Delegates can briefly present the reports during the 3rd session of the IUGG Council Meeting on 18 July 2023.*

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### **3. International Science & Infrastructure for Synchronous Observation (Antarctica InSync)**

Antarctica InSync is a proposal for an internationally coordinated synchronous scientific observation mission in and around Antarctica, to allow for a circumpolar assessment of the connections between ice, ocean, climate, environment and life, including human pressures, and their solutions such as marine protection. The [SCAR Southern Ocean Action Plan](#) has outlined the need for pan-Antarctic studies across a number of scientific disciplines. It builds on a Horizon Scan across the scientific communities including those of SOOS, GOOS, ACCE and others. This proposal for a coordinated synchronous mission will be realized in close collaboration with SCAR, which has initiated a UN Decade Collaborative Centre (DCC) for the Southern Ocean. We seek the logistic contribution of all National Antarctic Programs via COMNAP, for a planning phase in 2024-2026, and implementation/synthesis in 2027-2030. This mission is thus planned as a contribution to SCAR and

to the regional and thematic programs of the UN Decade for Ocean Science for Sustainable Development, which calls for innovative science solutions and a shared, global effort that builds on decades of achievement. Beyond ocean research it shall include synchronous terrestrial and airborne observations, making use of all available platforms and observatories in the region.

The proposed Antarctica InSync research programme aims to unite national Antarctic programs to achieve collaborative and synergetic actions, dedicated to synchronous observation in the years 2027-2030, which are likely to conclude the first decade of consecutive sea-ice minima since the onset of satellite observation. Simultaneous research carried out by all disciplines around Antarctica with similar approaches, common methods and shared goals has not been carried out in this region at the level proposed here. Key knowledge gaps will be addressed, including circumpolar assessments of fluxes and dynamics, heat transport, ice behaviour, primary production, CO2 budgets, and the distribution of key species in Antarctica and the surrounding waters. Data will be shared by FAIR principles, and next-generation scientific capacity will be developed by involving Early Career scientists and policy makers of all ATCM / CEP Parties and Observers.

Many leaders of Antarctic scientific research institutions and agencies, including AAD (Australia), AWI (Germany), BAS (UK), IPEV (France), ISP (Italy), NPI (Norway), and NSF (USA), already support the idea of such a pan-Antarctic mission and are ready to engage. Many more have expressed their interest, including the International Association of Cryospheric Sciences (IACS) and the International Association for the Physical Sciences of the Oceans (IAPSO).

#### Timeline Antarctica InSync:

|           |  |
|-----------|--|
| 2022      | EOI submission to UN Decade program and SCAR         |
| 2023      | Presentations at ATCM, COMNAP, SCAR, SOOS, IUGG, etc |
| 2024-2026 | Preparatory Phase                                    |
| 2027-2029 | Implementation Phase / Fieldwork                     |
| 2029-2030 | Completion and Reporting Phase                       |

Websites and contact addresses will be made available to the community soon, feedback and questions can already be submitted to [director@awi.de](mailto:director@awi.de).

Antje Boetius, Director of the Alfred Wegener Institute (AWI)

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#### 4. ISC – Annual Report 2022



The International Science Council's (ISC) 2022 Annual Report is now available [here](#). The report summarises all of the ISC's major activities in 2022, as well as those of its affiliated bodies, and includes the ISC's financial reporting for the year. Highlights include, among others, the signed agreements with the World Health Organization and the United Nations Environment Programme, the launch of the ISC Fellowship programme, and the establishment

of ISC regional presences in Latin America, and the Caribbean and the Asia-Pacific region.

2022 was a turbulent year for the world, and in times of crises, we are reminded of the importance of collaboration and the resilience of our networks – we are indeed stronger together.

## 5. Awards and Honours

### *International Association of Hydrological Sciences (IAHS)*

The winners of the 2023 IAHS-UNESCO-WMO International Hydrology Prize are **Aldo Fiori (Italy)** and **Efi Foufoula-Georgiou (Greece/USA)** (Dooge medal), and **Junguo Liu (China)** (Volker medal).

The International Hydrology Prize 2023 will be presented during the [IUGG General Assembly 2023](#).

*As of 2014, 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.*

*Nominations for the annual Prize are made by National Committees to IAHS, National Committees to the UNESCO-IHP or National Hydrological Advisors to the WMO and forwarded to the Secretary General of IAHS for consideration by the Nomination Committee. The Committee consists of the President and a Vice-President of IAHS, and representatives of UNESCO and WMO.*

### *International Association for the Physical Sciences of the Oceans (IAPSO)*

The Prince Albert I Medal Recipient 2023 is **John A. Church** (Australia) for his outstanding contribution on sea level research and related new insights into climate change.

*The Prince Albert I Medal is awarded to a scientist who has made outstanding contributions to the enhancement and advancement of the physical and/or chemical sciences of the oceans.*

John was also awarded the Axford Medal 2023 of the Asia Oceania Geosciences Society (AOGS) for his leading role in establishing a consistent and robust record of sea level change, integrating traditional tide gauge records with satellite radar altimetry data, as well as making important contributions to our understanding of ocean dynamics and the response to a changing climate.

### *France*

On 7 June 2023, **Mioara Mandea** (France; IAGA President 2019-2023) was promoted to the rank of ‘Officier dans l’Ordre National du Mérite’. This National Order of Merit was established by the French Republic as a universal order to honour individuals from all fields. Its purpose is to reward ‘distinguished merit’ and encourage the lifeblood of the country. It aims at reflecting a dynamic society, setting an example or recognising diversity.

### *Congratulations!*

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## 6. 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](#).

### July

- 2-7, ICTP, EAIFR, IUGG, Kigali, Rwanda, [Joint ICTP-EAIFR-IUGG Workshop on Computational Geodynamics: Towards Building a New Expertise Across Africa](#)
- 3-7, IACS, IUGG, Gävle, Sweden, [2023 Glacial Isostatic Adjustment Training School](#)
- 3-7, IASPEI, ILP, GFZ, Potsdam, Germany, [Heat Flow Summer School 2023](#)
- 8-9, IASPEI, ILP, GFZ, Potsdam, Germany, [Workshop on Heat Flow in Antarctica](#)
- 10-11, IASPEI, ILP, GFZ, Potsdam, Germany, [Workshop on Heat Flow in Africa, South- and Central America](#)
- 10-11, IAHS, GFZ, Potsdam, Germany, [Panta Rhei Symposium](#)
- 11-20, IUGG, Berlin, Germany, [IUGG General Assembly 2023](#)
- 12-13, GFZ, Potsdam, Germany, [International Training course on ocean bottom and amphibian experiment seismological data](#)
- 14-20, INQUA, Rome, Italy, [21st INQUA Congress](#)
- 20-22, IAGA, Neustrelitz, Germany, [Workshop on Current Challenges in Data Assimilation for Geospace Systems](#)
- 24-27, IUGG, IASPEI, IAVCEI, Nyeri, Kenya, [1st International Workshop of the Network for African Volcanologists](#)
- 30-4 August, Singapore, [AOGS Annual Meeting 2023](#)

### August

- 2-4, UNGGIM, New York City NY, USA, [13th Session of the United Nations Committee of Experts on Global Geospatial Information Management](#)
- 5-12, IAMG, Trondheim, Norway, [22st Annual Conference of the International Association for Mathematical Geosciences](#)
- 13-18, ICA, Cape Town, South Africa, [31st International Cartographic Conference](#)
- 19-26, URSI, Sapporo, Japan, [35th URSI General Assembly and Scientific Symposium](#)
- 28-5 September, IAVCEI, São Miguel, Azores, Portugal, [IAVCEI-CVL11 Workshop on Volcanic Lakes](#)

### September

- 2-7, ISPRS, Cairo, Egypt, [ISPRS Geospatial Week 2023](#)
- 3-7, BGR, Berlin, Germany, [GeoBerlin 2023. Geosciences Beyond Boundaries – Research, Society, Future](#)
- 12-15, IAVCEI, Kiel, Germany, [Stronger Together – Oceanic Volcanism Workshop](#)
- 20-22, IAG, Yebes, Spain, [GGOS Days 2023](#)
- 25-29, IAHS, UNESCO, Dakar, Senegal, [Global FRIEND-Water 2023 International Conference](#)

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*IUGG Electronic Journal Volume 23 Number 7 (1 July 2023)*

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