



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

## **The IUGG Electronic Journal**

**Volume 23 No. 4 (1 April 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 – Bureau and Finance Committee (2023-2027): Candidates and Call for Further Nominations**

On 11 November 2022, the IUGG Nominating Committee announced the names of candidates for election as IUGG Bureau and Finance Committee Members (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.

As there are two vacant positions for the Finance Committee, **it is a matter of urgency to nominate candidates for the two positions** from among the current or past accredited Council Delegates. The full list of Council Delegates who have served since 2002 is available [here](#). Please note that this list also includes a few colleagues who already passed away. No member of the Finance Committee may at the same time be a member of the Bureau or the executive body of the Union or of an Association or of a governing body of one of the Permanent Services or programs supported by the Union.

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

## 2. 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 we will get back to you with further information.

### Code of Conduct Policy

IUGG opposes any discrimination or harassment based on such factors as age, citizenship, disability, ethnic origin, gender identity, language, political or other opinion, religion, or sexual orientation. The [IUGG General Assembly 2023](#) will follow the 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](#).

### Field Trips and Tours

The organisers of the [IUGG General Assembly 2023](#) have prepared an interesting selection of field trips and city tours which can be booked [here](#).



### ***Getting there***

No matter if you travel to Berlin by train, plane, or car, please find all relevant information about how to reach the convention centre [here](#).

### ***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 four day period. The Early-bird registration will be available until **28 April 2023**.

### ***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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## **3. IAG – GGOS Portal: Community Survey**



**GGOS**  
Global Geodetic  
Observing System

GGOS is conducting a survey of the opinions of geodetic data users on data availability and visibility and to identify requirements for a comprehensive and user-friendly GGOS Portal. In addition GGOS will obtain an overview of the current availability of data products and their metadata.

- Do you work with geodetic data or products?
- Do you produce them?
- Do you provide them via a repository or data centre?

If yes, please take 10 to 15 minutes and participate in this [survey](#) to help us develop the GGOS Portal, a future unique access point for geodetic data and products.

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## **4. IAG/IAGA – 2nd IAG Commission 4 Symposium “Positioning and Applications”: Report**

The [2nd Symposium of IAG Commission 4 “Positioning and Applications”](#) took place at Wissenschaftsetage Potsdam, Germany, from 5 to 8 September 2022. On-site and online participation was possible. 74 participants were registered, of which 28 joined online. Among the registered were 14 students and six IAG members. 14 participants were female, 60 were male. The participants came from 20 countries: Algeria, Australia, Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, Finland, Germany, Greece, Iran, Italy, Poland, Saudi Arabia, South Africa, Spain, Switzerland, and the USA. The scientific programme included nine sessions. Five of these were arranged according to the IAG Commission 4 structure:

- Emerging Positioning Technologies and GNSS Augmentation
- Multi-frequency Multi-constellation GNSS
- Atmospheric Remote Sensing of the Troposphere
- GNSS Reflectometry
- GNSS Integrity and Quality Control

and two were dedicated to the special focus topics of the symposium:

- Atmospheric Remote Sensing of the Ionosphere
- IAG GGOS Focus Area Geodetic Space Weather Research



*On-site participants of the 2nd IAG Commission 4 Symposium “Positioning and Applications”*

51 talks and seven posters were presented within these sessions. We accepted presentation slides and posters as part of the open access [Symposium Proceedings](#) at Zenodo. We also held opening and closing sessions, and a special session with a video presentation. Our delegates organised an IAG Sub-Commission 4.3 splinter meeting, a business meeting of IAG Commission 4, and a IAG/IAGA splinter meeting on the topic of “Space Weather Research”.

Various scientific bodies took part in the organisation of this symposium. Besides IAG Commission 4, the IAG GGOS Focus Area “Geodetic Space Weather Research“ and the Interdivisional Commission on Space Weather of IAGA, we had the Technical University of Berlin, K.N. Toosi University of Technology Tehran, the International GNSS Service (IGS) and the U.S. Institute of Navigation (ION) on board as organisers. Due to its multi-association character, we received IUGG funding for fostering participation of scientists from developing countries, students, and early-career female scientists, and we could partly reimburse invited speakers that allowed us to design the symposium programme according to the focus topic. The local organisation was undertaken by Robert Heinkelmann, Anja Böhmer and Harald Schuh (GFZ Potsdam, Department Geodesy).

Especially we would like to thank IUGG for their grant which helped make the symposium an inter-association success.

Robert Heinkelmann  
on behalf of the Local Organising Committee and IUGG Funding Organiser

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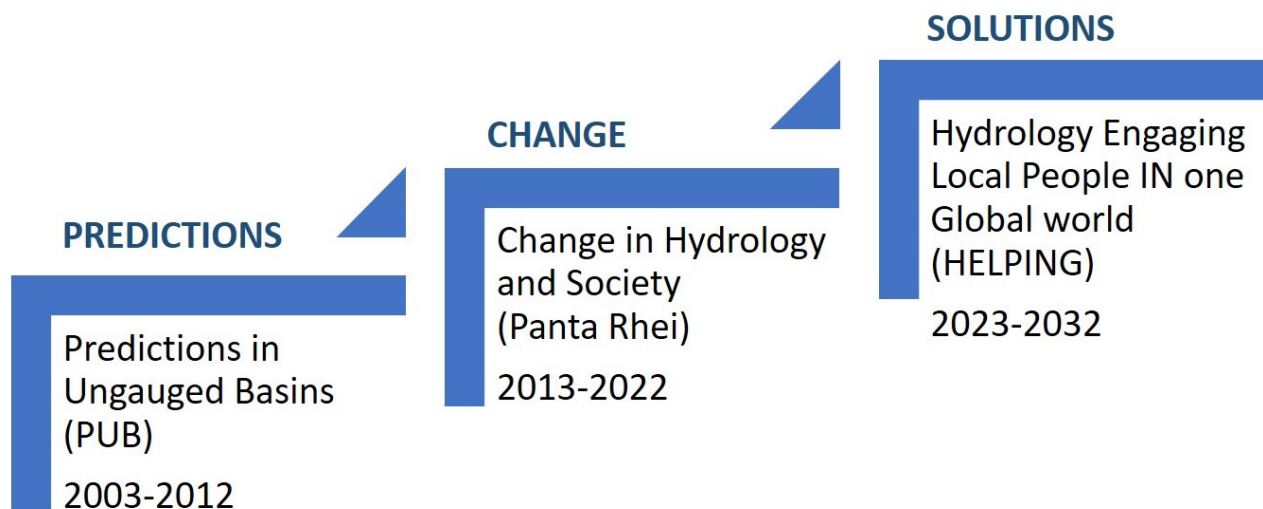
## 5. IAHS – Science for Water Solutions Decade (2023-2032)

The IAHS Science for Water Solutions Decade is recognised as a stepping stone towards the UN Sustainable Development Goals. IAHS is well aligned with the UN goals and together we can make an impact on the global movement.

IAHS was represented at the UN 2023 Water Conference from 22 to 24 March 2023 in New York by Berit Arheimer (IAHS President), Christophe Cudennec (IAHS Secretary General), and Salvatore Grimaldi (IAHS Vice President). After contributing to the shaping of the conference in our capacity as a Partner of UN Water, we had an explicit participation in several sessions and side events. In particular, Berit Arheimer discussed, with representatives of IAHS' parent organisation ISC - International Science Council, UNESCO, WMO, UNDP, UNEP, UNCCD, IAEA, and Ministers of several countries, the contribution of organised science to the proposed Intergovernmental Science-Policy Platform for Water Sustainability. The under-shaping IAHS Science for Water Solutions Decade HELPING (2023-2032) confirms to be a timely and relevant community-driven mechanism to feed #WaterAction.

IAHS has determined that the **Science for Water Solutions Decade (2023-2032)** will be dedicated to HELPING, which stands for **H**ydrology **E**ngaging **L**ocal **P**eople **I**N one **G**lobal world. The decade will be dedicated to local solutions to the global water crisis and will be a timely and relevant community-driven mechanism to feed #WaterAction.

The new topic forms a nice trilogy with the previous two decades, ranging from Predictions (PUB) across Change (Panta Rhei) to Solutions (HELPING).



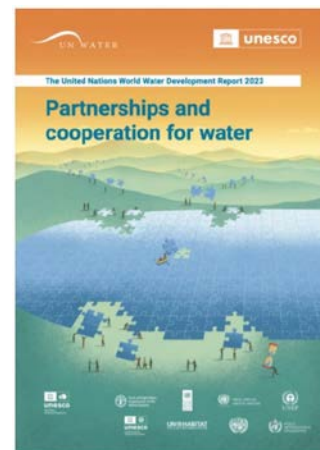
The overall aim of a scientific decade is to accumulate knowledge and to streamline the efforts in a way that encourages engagement, sharing and focus, and accelerates scientific knowledge and understanding of a specific hydrological problem or phenomena. It stimulates vivid discussions between early-career and senior scientists globally. After two successful decades, IAHS would like to boost the community once more by launching a third decade for collaborative efforts in hydrological sciences.

More information about HELPING is available [here](#).

## ***UN World Water Development Report***

The [United Nations World Water Development Report 2023: Partnerships and cooperation for water](#), launched on 22 March 2023, directly informed the UN 2023 Water Conference discussions (22-24 March), describing how building partnerships and enhancing cooperation across all dimensions of sustainable development are essential to accelerating progress towards the Sustainable Development Goal for water and sanitation (SDG 6) and realising the human rights to water and sanitation.

As an official partner of UN Water, IAHS contributed to this report, in particular chapter 7 (Climate change), chapter 9 (Education and capacity development) and chapter 11 (Innovation).



Berit Arheimer, IAHS President  
Christophe Cudennec, IAHS Secretary General

## **6. IAVCEI – Scientific Assembly 2023: Report**

Owing to travel restrictions due to the COVID-19 pandemic, the IAVCEI Scientific Assembly which was planned to be organised in 2021 in Rotorua, New Zealand, had to be postponed twice. Finally, it was held from 29 January to 3 February 2023. Despite a tropical cyclone from 27 to 29 January which caused the closure of Auckland airport and flight cancellations for numerous expected attendees, the assembly was a great success. Fortunately, many attendees had reached New Zealand well in advance in order to participate in pre-conference field excursions on active volcanic systems of the northern island. The assembly was attended by 1,080 people (860 on site, 220 online). 1,258 abstracts were received for a 4 day programme of oral session, poster sessions, and plenary lectures. Early Career Scientists presentations comprised 60% of the presentations.



*Closing ceremony of the IAVCEI Scientific Assembly, Rotorua, New Zealand, 3 February 2023  
(photo: G. Leonard, GNS)*

The assembly started with a traditional Maori celebration. Besides scientific sessions, the assembly included several workshops, the awards ceremony (George Walker Award and Wager Medal, nominations of Honorary Life Members), and an evening projection of the Netflix documentary “*The Volcano: Rescue from Whakaari*” on the nearby 2019 Whakaari/White Island eruption catastrophe, where 22 people died and 25 people were severely injured. Mid-conference field excursions were

cancelled due to meteorological conditions, but post-conference visits to several volcanoes took place.

Many participants expressed their great pleasure to meet again in person for the first time after the COVID-19 pandemic and appreciated both the overall scientific level and the friendly atmosphere of the assembly. The IAVCEI Executive Committee further acknowledges the New Zealand colleagues of the Local Organising Committee for the efficient organisation and the great success of the conference.

Patrick Allard, IAVCEI President  
Roberto Sulpizio, IAVCEI Secretary General

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## 7. IPCC – 6th Assessment Report

On 20 March 2023, the Intergovernmental Panel on Climate Change ([IPCC](#)) published the [Synthesis Report](#) of the Sixth Assessment Report (AR6), which is the last of the AR6 products. The Synthesis Report provides an overview of the state of knowledge on the science of climate change, emphasising new results since the publication of the Fifth Assessment Report (AR5) in 2014. It is the result of the



hard work of hundreds of scientists and experts who have contributed as IPCC authors and assessed thousands of scientific papers. The report demonstrates multiple, feasible and effective options to reduce greenhouse gas emissions and how to adapt to human-caused climate change. Antonio Guterres, UN Secretary General, calls it “a survival guide for humanity”.

*Thank you and congratulations!*

Franz Kuglitsch, IUGG Liaison Officer to IPCC

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## 8. UNESCO – 50th Anniversary of the International Geoscience Programme

The International Geoscience Programme ([IGCP](#)) was founded in 1972 by UNESCO and the International Union of Geological Sciences ([IUGS](#)). This UNESCO flagship programme actively contributes to society and to the implementation of the United Nations Sustainable Development Goals. The IGCP presently involves more than 5,000 geoscientists from 94 countries. In 2022, it delivered 60 projects, of which 41% involved women and 50% involved early-career scientists. The UNESCO Earth Sciences and GeoParks Section organised a conference “[Healing the Earth: UNESCO and Earth Sciences – Past, Present and Future](#)” held at the UNESCO Headquarters in Paris, France, on 16 March 2023. Participants were welcomed by Mr. Xing Qu, UNESCO Deputy Director-General and Acting Assistant Director-General for Natural Sciences; HE Dr. Mohamed Nabil, Minister of Higher Education and Research of the Republic of Djibouti; Dr. John Ludden, IUGS President; and Mr. Kristof Vandenberghe, Chief of Earth Sciences and GeoParks Section of UNESCO.



*Participants of the conference (photo: UNESCO ESGS)*

The conference showcased IGCP's achievements; discussed new IGCP and GeoParks projects; and assessed the impact and current status of the programme. The role of UNESCO and IUGS in international earth science cooperation were reviewed, and the challenges our society is facing today were addressed. Also, attention was given to the efforts of the programme to promote collaboration of geoscientists from less affluent countries and to engage them in research with geoscientists from the developed world. A panel chaired by Dr. Iain Stewart, UNESCO Chair on Geoscience and Society, discussed how geoscience expertise could tackle current and future threats to human and planetary wellbeing. Ms. Lisa Rebor, Senior Vice President of Emerging & Future Business at Equinor, Dr. Rokhaya Samba Diene, General Manager of the National Geological Survey of Senegal, and Dr. Geertje Schuitema, Associate Professor at University College Dublin joined the discussion as panelists. Several points were highlighted during the discussion involving the conference participants: a transformation from conventional to renewable energy resources; how to strengthen the IGCP including its financing; and how to involve industry, governmental agencies, and international organisations in cooperation with the IGCP. The IUGG Secretary General, Dr. Alexander Rudloff, IUGG Executive Secretary, Dr. Franz Kuglitsch, and the IUGG Liaison Officer to the UNESCO Earth Sciences and GeoParks Section, Dr. Alik Ismail-Zadeh, attended the conference.

Alik Ismail-Zadeh, IUGG Liaison Officer to the UNESCO Earth Sciences and GeoParks Section

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## **9. Network for African Volcanologists**

The establishment of the Network for African Volcanologists ([NAV](#)) was awarded a grant from the IUGG Grants Program 2022-2023 (Special Call dedicated to the International Year of Basic Sciences for Sustainable Development, IYBSSD2022) to oversee, promote, and strategise the future of volcanological education and research in Africa.



**A Network for African  
Volcanologists**

### ***Background***

African volcanism remains poorly represented in the academic literature. This is due to several reasons, among which are: (1) the rarity of volcanologists and volcanological programmes in



university curricula in Africa; (2) the lack of local financial support for volcanological research; (3) the absence of government institutions, volcano observatories, and research centres with a clear mandate to monitor volcanoes for hazards assessment; and (4) the lack of strong international linkages and networks for research collaborations.

Recently, a group of African volcanologists has been working to establish NAV to foster a community of practice that addresses the above challenges and seeks to overcome the implied limitations. The NAV is to serve as a platform for researchers on the African continent, and in the diaspora, to get to know each other, easily interact and share experiences, carry out joint projects and contribute to international collaborations in the Earth and Space Sciences. The aim is to develop a forum for geoscientists from African countries, and motivate them to get involved in high-impact research and generate new knowledge applicable to African volcanoes and worldwide, promote volcanological studies within universities across the continent, enhance genuine international collaboration and training in volcanology, sustainably and beneficially. NAV also aims to facilitate access to data and methods for African graduates, postgraduates, and early-career researchers.

### ***1st International Workshop of the Network for African Volcanologists***

Our priority now is to formalise our network and give it international recognition. To this end, we are happy to invite you to participate in the [First International Workshop of the NAV](#), which will be held at Dedan Kimathi University of Technology, Nyeri, Kenya, from 24 to 27 July 2023.

The goal of this event is to bring African volcanologists together from across the globe and officially launch the Network of African Volcanologists and take the opportunity to discuss the difficulties faced by our researchers and students across the continent, as this will help to identify the priorities and future for furthering Africa's understanding of volcanism.

The workshop will consist of formal scientific sessions and roundtable discussions, with the opportunity for both virtual and physical participation.

Nicholas Mariita, Dedan Kimathi University of Technology, Kenya  
on behalf of the Local Organising Committee

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## **10. Meeting Announcements**

### ***Joint ICTP-EAIFR-IUGG Workshop on Computational Geodynamics: Towards Building a New Expertise Across Africa***



The [Joint ICTP-EAIFR-IUGG Workshop on Computational Geodynamics](#) will bring together leading researchers in computational geodynamics to Kigali, Rwanda, from 3 to 7 July 2023, with the aim to expose young African talents to this field. The event is co-sponsored by the ICTP-East African Institute for Fundamental Research ([ICTP-EAIFR](#)) of the University of Rwanda and the International Union of Geodesy and Geophysics ([IUGG](#)).

Topics that will be covered consisting include:

1. An introduction to geodynamics with particular emphasis on Africa. This activity will show the forces acting on the Earth, and the resulting movement and deformation on the Earth.
2. An introduction to the theoretical physical background. Emphasis will be placed on the essentials of continuum mechanics and rheological models.
3. Scaling analysis and dimensional analysis.
4. Model validation.
5. The concepts of parallel computing and the scalability of models on parallel architecture.

The activities will combine formal lectures and practical work using some open source softwares for geodynamics.

Abstract Submission Deadline: **15 April 2023**

More information is available [here](#).

### ***International Workshop on Geosciences in Active Areas***



We are pleased to welcome you to the [International Workshop on Geosciences in Active Areas](#), which is organised by the Institute of Geosciences (IGEO, CSIC-UCM) and the House of Volcanoes in Lanzarote (HoV, CIL). The workshop is supported by IUGG, the International Association of Geodesy (IAG), and the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI).

The workshop aims to gather scientists from a wide range of Earth's science disciplines (such as geophysics, geodesy, geology, seismology, volcanology, geochemistry, rock mechanics and tectonics) to exchange ideas on a range of topics focused on volcanic and seismic active areas of the Earth.

The workshop will be held in Lanzarote, Spain, from 16 to 20 October 2023. More information is available [here](#).

Emilio Vélez, Técnico Superior Especializado I+D+i, Instituto de Geociencias (CSIC-UCM), Spain  
on behalf of the Local Organising Committee

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## **11. Awards and Honours**

### ***Geological Society***

**Kathy Whaler** (UK), IUGG President, was awarded the Geological Society's highest award, the [Wollaston Medal](#). This medal is given to geoscientists who have had a significant influence by means of a substantial body of excellent research in either or both 'pure' and 'applied' aspects of the science, and was first awarded in 1831 to William Smith, often referred to as the 'Father of English Geology'. Whaler said it was “an honour (she would be) absolutely delighted to accept”.

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

**Malte F. Stuecker** (USA) was awarded the 2023 IAPSO Early Career Scientist medal in Physical Oceanography.

## *International Association of Volcanology and Chemistry of the Earth Interior (IAVCEI)*

*Emma Liu-Christopher* (UK) and *Andrea Belvilacqua* (Italy) were awarded the 2023 IAVCEI George Walker Award.

*Suzanna Jenkins* (Singapore) and *Yves Moussallam* (USA) were awarded the 2023 IAVCEI Wager Medal.

### *Congratulations!*

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## **12. 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](#).

### *April*

- 4-6, AGU, Atlanta GA, USA, [Ocean Visions Biennial Summit 2023](#)
- 16-21, COSPAR, Singapore, [5th COSPAR Symposium: Space Science with Small Satellites](#)
- 22-23, IUGG-China, Wuhan, China, 5th Congress of China Geodesy and Geophysics
- 23-28, EGU, Vienna, Austria, [EGU General Assembly 2023](#)

### *May*

- 2-5, IAVCEI, Naples, Italy, [International Workshop: Genesis and dynamics of large active calderas: the case of Campi Flegrei and the Campanian Plain](#)
- 12-16, IAGA, IAPS, Milan, Italy, [PLANCKS 2023](#)
- 14-20, IAVCEI, GFZ, Carlingford, Ireland, [IMPROVE Summer School on Geophysical data inversion and numerical forward modelling](#)
- 15-19, AGU, Agros, Cyprus, [Chapman on Hydrothermal Circulation and Seawater Chemistry](#)
- 21-26, JPGU, Chiba, Japan, [Japan Geoscience Union Meeting 2023](#)
- 22-26, IAG, Gothenburg, Sweden, [EUREF Symposium 2023](#)
- 22-26, IAGA, Sopron, Hungary, [19th IAGA workshop on geomagnetic observatories, data acquisition and processing](#)
- 22-2 June, WMO, Geneva, Switzerland, [19th World Meteorological Congress](#)
- 28-2 June, AGU, Berlin, Germany, [Chapman on Advances in Understanding Alfvén Waves in the Sun and the Heliosphere](#)

### *June*

- 12-15, AGU, Washington DC, USA, [Chapman on Climate and Health in Africa](#)
  - 13-14, GEO, Geneva, Switzerland, [GEO Symposium 2023](#)
  - 19-23, CTBTO, Vienna, Austria, [CTBT: Science and Technology \(SnT2023\)](#)
  - 26-30, IAMAS, Brisbane, Australia, [International Conference of Nucleation and Atmospheric Aerosol \(ICNAA\)](#)
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