



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

## **The IUGG Electronic Journal**

**Volume 22 No. 2 (1 February 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 – Grants Program 2022-2023**

IUGG continues its Grants Program for 2022-2023, which will complement the Union program of funding symposia and workshops organised or co-sponsored by Union Associations and Union Commissions. Key priority areas are defined for the Grants Program in line with IUGG overall scientific strategies:

- Creation of new knowledge in Earth and space sciences
- Dissemination of knowledge, data and information on geophysics and geodesy
- Geoscience for sustainable development
- Geoscience and policy interface
- Geoscience education and outreach in developing countries

Proposals of high quality related to the priority areas will be funded for a fixed term of one or two years. The IUGG Grants Program aims to support projects of importance to the international geophysical and geodetic community, which will explore new scientific ideas and develop future international initiatives. A typical proposal may be for a workshop or a meeting of experts from several disciplines to develop a specific scientific program or assessment, particularly addressing an enhancement of geophysical research and Earth science education in underdeveloped and developing countries. Although the range of activities supported is broad, the project proposals should be of scientific and societal importance, and their results are expected to provide clear recommendations to

politicians and other decision makers at national and local levels and to the general public in terms of the urgent actions to be undertaken. The deliverables of the projects should bring increased visibility to the IUGG and the Union Associations.

***Proposals can be submitted by IUGG Associations and Union Commissions only.*** Associations' bodies (e.g., Commissions, Task and Work Groups) seeking funding for a project should submit their proposals via relevant Union Associations or Union Commissions. Any grant application must involve at least two IUGG bodies (Associations or Union Commissions): a Lead Applicant plus at least one Supporting Applicant. Preference will be given to proposals that are multi- and trans-disciplinary and truly international, especially those involving more than two of the IUGG Associations and Union Commissions, and representatives of several countries. Proposals should be global or regional in scope and involve a multi-national group, especially scientists from developing countries, women, and early career researchers.

The number of proposals to be funded per year is not fixed, but depends upon relevance, quality, proposal budget requests, and the total amount of funds available for the Grants Program. The total funding for the Program in 2022-2023 is USD 80,000. A ceiling of USD 20,000 is imposed on all applications. Co-sponsorship from other sources is encouraged.

***The deadline for the project proposal submission is 1 April 2022.*** Following the call, all proposals are peer-reviewed in open competition by the IUGG Bureau. If necessary, experts may be invited to participate in the review process. Successful applicants will be notified by 1 July 2022.

Grants will be made for periods of one or two years commencing from 1 August 2022. Projects may be cancelled if progress has been unsatisfactory. For funded projects, an annual report is to be sent to the [IUGG Secretariat](#) by 31 October 2023 and subsequently annually on the same date for all multi-year projects. A final report is to be submitted within three months of the date of the project completion.

Applicants are encouraged to submit their applications electronically. The application form can be obtained from the [IUGG Secretariat](#) on a request of an IUGG Association or Union Commission Secretary General. Further information is available [here](#).

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## **2. IUGG2023 – Invitation to Submit Draft Resolutions**

IUGG Associations and Member Countries are now invited to submit draft resolutions for the 28th IUGG General Assembly in 2023 ([IUGG2023](#)) to the [IUGG Secretariat](#) by **31 January 2023**. Resolutions should address geophysical matters of significant international impact or matters of significant policy importance for the international geodetic and geophysical community as a whole.

Draft Resolutions should follow the same format as in the past. In broad terms, the format comprises:

- A preamble in the form of “considering”, “recognising”, “acknowledging”, and/or “noting” past events or decisions relevant to the proposed Resolution,
- either “recommends” or “urges” action by, e.g., institutions, governmental bodies, agencies, or a body within the IUGG, and/or
- “resolves” that some specific action or decision follow.

Past IUGG Resolutions can be accessed [here](#).

The Draft Resolutions will be examined by the [Resolution Committee 2022-2023](#), which is chaired by Michael G. Sideris, IUGG President 2015-2019. The Resolutions must be approved by both the

IUGG Bureau and the IUGG Executive Committee before being presented and adopted by the IUGG Council at its meeting during IUGG2023. For more information, please contact the [IUGG Secretariat](#) or the [Chair of the Committee](#).

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### 3. IAG – 2021 SIRGAS Symposium – Report



The IAG sponsored 2021 SIRGAS Symposium was held online from 29 November to 1 December 2021. Participation was free. Technical sessions and working group meetings were translated simultaneously between English and Spanish.

The organisation of the 2021 SIRGAS Symposium was under the coordination of the SIRGAS Executive Committee, the Local Organising Committee, and the National Geographic Institute of Peru. Traditionally, IAG and the Pan-American Institute of Geography and History (PAIGH) are strong supporters.

Technical sessions had 59 contributions, with 24 oral presentations and 29 posters. The technical sessions had an average attendance of 120 participants (via Zoom) and 720 participants (via YouTube). The complete symposium program is available [here](#).

The topics addressed during the symposium were:

- Session 1: Report of the SIRGAS authorities: President of SIRGAS, Presidents of the SIRGAS Working Groups and update of the GRFA of UN-GGIM: Americas;
- Session 2: Development and maintenance of the SIRGAS reference framework;
- Session 3: Modelling of the Earth's gravity field (geoid, gravimetry, international reference system of heights);
- Session 4: Applications of the SIRGAS framework (national reports, real-time applications, etc.); and
- Session 5: SIRGAS contributions to the modelling of the Earth System (troposphere, ionosphere, seismology, oceanography and hydrography).

The posters are available [here](#).

The video recordings are available [here](#).

The Journal of Geodetic Sciences (JoGS) will publish a special issue of the 2021 SIRGAS Symposium.

Sonia Costa  
Instituto Brasileiro de Geografia e Estatística – IBGE

*SIRGAS is a pan-American organisation formed by regional government agencies of Geodesy and Cartography, universities and research centres, which aims to define and maintain a continental geocentric reference frame, a unified vertical reference system, a gravimetric geoid model, and a continental absolute gravity network. Since its establishment in 1993, SIRGAS has been strongly supported by IAG and IUGG. More information about SIRGAS can be found [here](#).*

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#### 4. CMG –33rd IUGG Conference on Mathematical Geophysics – Announcement



The 33rd IUGG Conference on Mathematical Geophysics ([CMG2022](#)), organised by the Union Commission on Mathematical Geophysics (IUGG-CMG), will be hosted by the Seoul National University, Seoul, Republic of Korea, from 20 to 24 June 2022. The conference aims to discuss key theoretical and observational aspects of solid earth, ocean, atmosphere, cryosphere, climate and other contemporary topics in mathematical geophysics. The [conference program](#) covers six themes: Data Sciences; Machine Learning and Artificial Intelligence; Geophysical Fluid Dynamics; Geophysical Inversion: Theory, Algorithms, and Applications; From the Core to the Space: Different Spheres with Common Mathematics; Mathematics for Natural Hazards Science; and Mathematics for Climate Science. CMG2022 is a contribution to the United Nations International Year on Basic Science for Sustainable Development ([IYBSSD](#)), an international program partnered by IUGG. A keynote lecture will be given by the inaugural recipient of the Vladimir Keilis-Borok Medal of the IUGG Commission on Mathematical Geophysics (to be announced later). The conference will be held online (with an onsite component depending on the epidemiological situation). The online conference will be free of charge for registered participants. The deadline for abstract submission is **30 April 2022**. For more information, please visit the [CMG2022 website](#).

The first IUGG Conference on Mathematical Geophysics was held in Moscow and Leningrad (now St. Petersburg), USSR (now Russia) in 1964. Initially the meetings were organised on a semi-annual basis. After 1986 conferences became larger and were held biennially, in Oosterbeek (Netherlands, 1986), Blanes (Spain, 1988), Jerusalem (Israel, 1990), Taxco (Mexico, 1992), Villefranche (France, 1994), Santa Fe (USA, 1996), Cambridge (UK, 1998), Villefranche sur Mer (France, 2000), Torino (Italy, 2002), New York (USA, 2004), Sea of Galilee (Israel, 2006), Svalbard (Norway, 2008), Pisa (Italy, 2010), Edinburgh (UK, 2012), Merida (Mexico, 2014), Paris (France, 2016), and Nizhny Novgorod (Russia, 2018). The CMG2022 is the first conference to be held in East Asia.

Alik Ismail-Zadeh (Chair) and Ilya Zaliapin (Secretary), IUGG-CMG

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## 5. CODATA/WDS – SciDataCon 2022 – Call for Sessions

The deadline for the SciDataCon 2022 [Call for Sessions](#) proposals is on **14 February 2022**.



[SciDataCon 2022](#) is a part of the [International Data Week 2022](#), which will be held both virtually and in Seoul, Republic of Korea. The main conference will take place from 20 to 23 June 2022. Colocated, hybrid and virtual events will take place both before and after these dates.

The overarching theme of International Data Week and SciDataCon 2022 is *Data to Improve our World*. In our post-pandemic future, humanity has an opportunity and obligation to address major challenges, including climate change, sustainable development, and disaster risk reduction. The digital revolution and the ‘Fourth Industrial Revolution’, the methods and practices of Open Science, and of FAIR data and services, give humanity the tools to do so. Embracing these possibilities requires engagement with society, rigorous research methods, and good practice in data science and data stewardship. The theme Data to Improve our World explores the nexus of these issues.

## 6. IPCC – Government and Expert Review of the Synthesis Report of the Sixth Assessment Report



The Intergovernmental Panel on Climate Change ([IPCC](#)) opened registration for the Government and Expert Review of the draft Sixth Assessment Synthesis Report and the Summary for Policymakers.

Interested experts can register for participation in the review [here](#). The Government and Expert Review of the Synthesis Report takes place from 10 January to 20 March 2022.

The Synthesis Report is the final product of the Sixth Assessment Report to be approved in September 2022. It synthesises and integrates the findings of all three Working Group contributions to the Sixth Assessment Report and the special reports that have been produced in this cycle.

More information can be found [here](#).

## 7. SCOR – Call for Working Groups

The Secretariat of the Scientific Committee on Oceanic Research ([SCOR](#)) invites proposals for new working groups to commence activities in late 2022. SCOR will probably be able to support two new working groups. Each new group will be provided USD 45,000 over a 3 to 4-year period to conduct its work. The selection of the new SCOR working groups will take place at the 2022 SCOR Annual Meeting scheduled to take place in Busan, Rep. of Korea, from 3 to 7 October 2022.



Deadline for submission: **30 April 2022**

More information about the call can be found [here](#).



## 8. News from the ISC



### ISC Activity and Achievement Report (2018-2021)

During the 2nd ISC General Assembly, the ISC President and the CEO reported about the ISC activities and achievements during the first three years of operation of the Council. The [ISC Activity and Achievement Report \(2018-2021\)](#) is now published and documents to what extent the ISC and its Members are succeeding in pursuing the mission of the ISC to advance science as a global public good.



### ISC Action Plan 2022-2024: Science and Society in Transition

The [ISC Action Plan 2022-2024: Science and society in transition](#) is now published and will guide the Council's work until the end of 2024. It builds on ISC activities and achievements to date, reflects the lessons that have been learned in implementing the first Action Plan, and responds to the evolving global context within which science operates.

## 9. Meeting Announcements

### 1st Workshop on Data Science for GNSS Remote Sensing

We would like to announce the [1st Workshop on Data Science for GNSS Remote Sensing](#). The meeting will be hosted by the German Research Centre for Geosciences GFZ in Potsdam, Germany, from 13 to 15 June 2022.

There has been a rapid progress in Earth observation using GNSS signals from numerous ground and satellite based platforms as well as modern data scientific approaches for their analysis, including machine learning and data assimilation techniques. Now is the right time to gather scientists interested in interdisciplinary activities linking these two research areas to foster a creative and intense scientific exchange and collaborations. Our ultimate goal is the provision of advanced and versatile GNSS

Remote Sensing data products on different spatio-temporal scales for Earth System science and related operational applications to advance early warning systems and numerical weather forecasts.

The meeting will take place on the historic “Telegrafenberg”. At the moment, we plan for a face-to-face meeting. However, we carefully observe the pandemic situation and will adapt the meeting format accordingly.

**Abstract Submission Deadline: 14 March 2022**

Please feel free to forward this announcement to your colleagues.  
We look forward to seeing you in Potsdam!

Milad Asgarimehr, Karina Wilgan, and Jens Wickert  
on behalf on the Local Organising Committee

*The 1st Workshop on Data Science for GNSS Remote Sensing was awarded an IUGG Meeting Support 2022 grant.*

### **Cermak7 - 7th International Meeting on Heat Flow and the Thermal Structure of the Lithosphere**



The 7th International Meeting on Heat flow and the Thermal Structure of the Lithosphere will be held from 20 to 22 June 2022 in Potsdam, Germany, hosted by the GFZ German Research Centre for Geosciences. The meeting renews the successful tradition of the [Czech "castle meetings"](#), which were organised by the Geophysical Institute of the Czech Academy of Sciences between [1982](#) and [2006](#). In honour of the chairman of those meetings, the name Čermák is adopted now for the conference series and the meetings ahead, organised under the auspices of the [IHFC](#).

The overarching theme of the Potsdam Čermák7 meeting, which is organised both as a conference and a workshop ([call for abstracts](#)), provides a unique opportunity for researchers, students and industry experts to show and discuss recent results and developments in heat-flow determination and interpretation, experimental petrophysics, geothermal exploration and lithosphere studies.

**Abstract Submission Deadline: 20 March 2022**

Surrounded by forests and lakes and rich in historical castles and cultural attractions, Potsdam is looking forward to welcoming you to the Čermák7 conference!

Sven Fuchs, Ben Norden, and Angela Spalek  
Local Organising Committee

*Cermak7 - 7th International Meeting on Heat Flow and the Thermal Structure of the Lithosphere was awarded an IUGG Meeting Support 2022 grant.*

## Artificial Intelligence for Natural Disaster Management

Integrating frontier technologies including Artificial Intelligence (AI) into existing emergency systems can harness the potential of existing data streams and improve hazard mitigation and disaster management.

This [Webinar](#) on 16 March 2022 will explore the main barriers to the adoption of these disruptive technologies in the area of disaster management and will also examine the integrated approaches related to machine learning, big data analytics, and AI for supporting the detection, forecasting, and communication of natural hazards and disasters. In this context, the Webinar will provide an overview of how AI can be leveraged to enhance modelling across spatiotemporal scales and facilitate effective communication in the event of a natural disaster.

Opening the Webinar, the IUGG is pleased to announce that President Kathy Whaler will be providing a keynote.

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### 10. Meeting Calendar

This calendar includes meetings which are planned to be organised in 2022 under the umbrella of IUGG, and major conferences of IUGG's partner organisations. Meetings are subject to change due to the COVID-19 pandemic. The calendar is updated regularly and is also available [online](#). If you would like to include the mention of a meeting, or report changes, please contact the [IUGG Secretariat](#).

#### *February*

- 1-4, IAHS, Grenoble, France, [3rd International Conference on Snow Hydrology \(SnowHydro2022\)](#)
- 21-25, SCOSTEP, Online, [15th Quadrennial Solar Terrestrial Physics Symposium \(STP-15\)](#)
- 27-4 March, AGU, Honolulu HI, USA, [Ocean Sciences Meeting 2022](#)



**March**

- 16, ITU, UNEP, WMO, Online, [Workshop on AI for Natural Disaster Management](#)

**April**

- 11-13, IAG, Leipzig, Germany, [IGRF Workshop 2022](#)
- 19-23, SSA, Bellevue WA, USA [Annual Meeting 2022 of the Seismological Society of America](#)

**IAHS Scientific Assembly 2022**

- 29-3 June, IAHS, Montpellier, France, [IAHS Scientific Assembly](#)

**IAVCEI Scientific Assembly 2023**

- 30 January-3 February 2023, IAVCEI, Rotorua, New Zealand, [IAVCEI Scientific Assembly](#)

**IUGG General Assembly 2023**

- 11-20 July 2023, IUGG, Berlin, Germany, [IUGG General Assembly 2023](#)

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