



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

## **The IUGG Electronic Journal**

**Volume 22 No. 4 (1 April 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 – The People at the Forefront (XXVI)**

**Steve Ackerman, Secretary General of the International Association of Meteorology and Atmospheric Sciences (IAMAS), 2019-2023**



*Steve Ackerman, IAMAS Secretary General  
(2019-2023)*

I grew up on Long Island, NY before seeking my undergraduate degree at State University of New York at Oneonta. I intended to get a degree to teach high school physics. I majored in physics and meteorology, writing a barotropic model as a senior project in 1976. While curious about weather forecasting, my major interest was in atmospheric physics. Through my senior project and other experiences as an undergraduate, my interest in research grew. I attended graduate school at Colorado State University (CSU), receiving a master's degree in early 1979. Following that, I took a job as a research scientist at CSU and participated in the Summer Monsoon Experiment (S-MONEX). This international experiment was conducted over the Indian Ocean

and adjacent land areas from May through August 1979, overlapping with the second Special Observing Period of the First GARP Global Experiment (FGGE). I flew on the NASA CV-990 over Saudi Arabia, the Arabian Sea, and India making observations of the regional radiation budget. I spent several years analysing the data we collected, along with satellite observations from GOES-1, which was moved from the US to above the Indian Ocean to support MONEX, to derive a tropospheric radiation budget for the region. I enjoyed participating in the S-MONEX field programs and pursued participation in field programs throughout my career.

I found flying over the deserts of the Arabian Peninsula fascinating because of the various colours of sand and the many dune types that were driven by the sand and the climatological winds. I also experienced a sandstorm while in Riyadh. Those experiences led me back to graduate school in 1985 to further explore the radiative properties of soil-derived aerosols. I graduated with a PhD in 1987 from CSU on that topic.

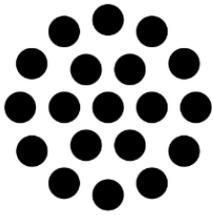
I next moved to the University of Wisconsin-Madison to work at the Cooperative Institute for Meteorological Satellite Studies. CIMSS is a partnership between the University of Wisconsin-Madison and National Oceanic and Atmospheric Administration (NOAA). One of 17 NOAA cooperative institutes across the US, CIMSS is co-located with NOAA's Advanced Satellite Products Branch, a relationship that facilitates the transfer of research to operations. I worked closely with Prof. William Smith, director of CIMSS, on the NASA Earth Radiation Budget Experiment (ERBE). During this period of my career, I combined observations from different satellite instrument (e.g., ERBE, AVHRR and HIRS) to explore properties of clouds, aerosols and their impact on the radiation budget.

I always had an interest in teaching and I joined the faculty in the Department of Atmospheric and Oceanic Sciences in 1992. My interest in education motivated me write an introductory level textbook with colleague John Knox. The first edition received the 2003 Society of Academic Author's Talby prize to "recognize excellence in visuals in textbooks and other learning materials." I was a recipient of campus teaching awards and received the American Meteorological Society's Teaching Excellence Award, "For his abundant energy and steadfastness in the production and practice of excellence in teaching and mentoring, and for the development and wide dissemination of highly regarded learning materials for undergraduate and graduate students in the atmospheric sciences."

Throughout the 1990s I was active in a variety of field programs that studied the radiative and microphysical properties of clouds. Several of these field programs were associated with the validation activities for the International Satellite Cloud Climatology Experiments. I, along with several UW-Madison scientists, were involved with the very beginning of the NASA MODIS program (Moderate Resolution Imaging Spectrometer). We developed the algorithms for cloud mask and cloud top properties. The approaches have been applied to other instruments, such as the Visible Infrared Imaging Radiometer Suite (VIIRS), to develop a continuity data set for long term studies. It was through this research that I collaborated with Prof. Teruyuki Nakajima. He was Secretary General of IAMAS and a major reason I joined the Executive Committee of IAMAS. I became Secretary General in 2019 shortly after the IUGG General Assembly in Montreal.

This has been a challenging time to be a Secretary General of any Association. With the global impact of the COVID-19 pandemic, the planned meetings of our commissions were either postponed or moved to virtual mode. As we come to the end of these challenges and victories, I look forward to more face-to-face encounters as IAMAS provides the scientific community with platforms to present, discuss, and promote the newest achievements in meteorology, atmospheric science, and related fields.

## 2. ISC – Statement on Ukraine



**International  
Science Council**



The IUGG echoes the [Statement on Ukraine](#) published by the International Science Council ([ISC](#)) on 28 February 2022 (see below) and expresses its deep dismay and concerns regarding the military offensives being carried out in Ukraine and warns against the severe outcomes that conflict will have on the research and academic community. IUGG opposes any discrimination or harassment of individuals based on factors such as age, citizenship, disability, ethnic origin, gender identity, language, political or other opinion, religion, or sexual orientation. It is the IUGG policy to follow the regulations of the ISC on non-discrimination and universality of science.

»The ISC expresses its deep dismay and concerns regarding the military offensives being carried out in Ukraine. This conflict has already generated a grave humanitarian crisis.

Science has proven to act as a platform for dialogue even in times of war, and therefore is a resource on which to capitalize to avoid further loss of life and disruption including that to scientific research and infrastructures. The ISC counts members in all countries involved in this conflict.

At a time when the demand and the potential for science to provide actionable knowledge to our global challenges on multiple fronts – climate change, the COVID-19 pandemic, and growing inequalities – are greater than ever, the current conflict in Ukraine and its consequences will hamper the power of science to solve problems when we should be harnessing it.

The ISC also warns against the severe outcomes that conflict will have on the research and academic community. Our capacity to work collaboratively on global challenges, and on cutting edge research such as Arctic and space research, is only equal to our capacity to maintain strong collaboration amidst geopolitical turmoil. Ultimately the isolation and exclusion of important scientific communities is detrimental to all.

The ISC and its [partners](#) are committed to assisting the global scientific community in welcoming and protecting scientists who have been placed at-risk or become displaced by this conflict by providing them opportunities to continue their work.

The ISC is committed to continue advancing the equal participation and collaboration between scientists in all countries in its activities and the principle of the free and responsible practice of science which is enshrined in its [statutes](#).«

### 3. IUGG Bureau and Finance Committee Members (2023-2027) – Call for Nominations

The IUGG Council, at its final meeting during the [IUGG General Assembly 2023](#) in Berlin, Germany, will elect the IUGG [Bureau](#) and [Finance Committee](#) Members for the coming quadrennium (2023-2027). These include the President-Elect, Secretary General, Treasurer, 3 Members of the Bureau, and 3 Members of the Finance Committee.

The IUGG President Kathryn Whaler appointed the [Nominating Committee](#) as follows: Harsh Gupta (India; Chair), Anny Cazenave (France), Hugo Delgado Granados (Mexico), and Alberto Montanari (Italy).

The official representatives of the Adhering Bodies of the Member Countries as well as IUGG and Association Officers are invited to submit candidates for the positions on the Bureau and Finance Committee. Scientists from countries represented by Adhering Bodies that have Associate membership, or have been in Observer status for more than two years, and scientists from countries not represented by an Adhering Body, are not eligible to be candidates or to hold elected positions in the Bureau and Finance Committee. Each nomination must include a completed *Nomination Form*, which states the motivation of the proposed candidate as well as the agreement of the candidate to serve if elected. *No one can be a candidate for more than one position in the election.*

The deadline for submission of nominations is **11 October 2022**. The nominations should be submitted *by e-mail* to the [IUGG Executive Secretary](#) Franz Kuglitsch. After that time, the Nominating Committee will prepare a document presenting one or two names for each position that will seek a reasonable balance in geographical and disciplinary distributions, gender, age, and experience. This document will be sent to the officers of the Adhering Bodies, the Union and Associations to be received by 11 November 2022. The second deadline is **11 April 2023**. New candidates for each office will be added to the ballot, if they are supported by at least three Presidents or equivalent officers of National Committees of Member Adhering Bodies. The final list of nominations will be compiled and distributed so that it is received by 11 May 2023. The By-Laws permit re-nominations following the closure of the first Council Meeting at the General Assembly.

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

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### 4. IUGG2023 – Save the Date

The 28th IUGG General Assembly ([IUGG2023](#)) will be held from 11 to 20 July 2023 at the City Cube in Berlin, Germany. IUGG General Assemblies are amongst the world's most important geoscientific events, take place every four years and attract several thousand participants.

After more than two years of online/hybrid scientific meetings this General Assembly will be a special opportunity for participants from around the world to meet in person again. The full range of themes in focus of IUGG will be discussed. Our program will further enhance the existing important interdisciplinary collaboration for a better understanding of our Earth System.

IUGG2023 will provide a platform for personal meetings, exchange of ideas and developing new concepts for international science collaboration, all of which have suffered a setback during this pandemic crisis. IUGG2023 will help to create a new spirit to address large societal challenges such as global environmental change and natural hazards, and to stimulate novel geoscience research.

The Berlin-Brandenburg region is home to one of the largest geoscientific clusters in the world. Participants will have a unique opportunity to meet their international project partners again in person or to combine their participation with a visit to research organisations such as the German Research Centre for Geosciences ([GFZ](#)), the Alfred Wegener Institute for Polar and Marine Research ([AWI](#)), or the German Aerospace Center ([DLR](#)). We are planning a prominent excursion program, and especially for young scientists we would like to provide opportunities for exchange, presentation, and discussion in addition to the official agenda.

Call for abstracts, travel grants, and registration opens

Information on abstract acceptance

Publication of program



*Deadlines for IUGG2023*

Harald Schuh, Chair of the IUGG2023 Local Organising Committee

## 5. IACS – Support for Workshops and Assemblies



IACS

International Association of Cryospheric Sciences

The International Association of Cryospheric Sciences ([IACS](#)) co-sponsors cryosphere-related workshops, educational or other events, typically up to a maximum of 2,000 Euros per event. Organisers of such events can request support from IACS by sending a support request form to the [Secretary General](#). Awardees must be IACS members. A report of how the funding was spent is required. IACS has

three deadlines per year: **1 February, 1 June and 1 October**. More information is available [here](#).

## 6. IGCP Council – Call for Nominations

The International Geoscience Programme ([IGCP](#)) has long been recognised globally amongst geoscientists as one of the most successful models for promoting international scientific cooperation in geosciences. This joint venture, created 50 years ago by [UNESCO](#) and the International Union of Geological Sciences ([IUGS](#)), continues to provide opportunities for strong collaboration, capacity building for developing countries and recognition by international peers.



**unesco**  
International Geoscience Programme

The purpose of this call is to invite nominations for three new candidates to become member of the IGCP Council. The current call concerns the following themes:

- Earth Resources
- Global Change
- Geohazards

If you are aware of excellent scientists, who have an exemplary track record in a particular field of research and a passion for international collaboration, please suggest to them that they apply to join the IGCP Council.

Deadline for nominations: **1 May 2022**

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

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## 7. IYBSSD2022 – Call for Proposals



The International Year of Basic Sciences for Sustainable (IYBSSD2022), which is actively supported by IUGG, focuses on the links between basic sciences and the Sustainable Development Goals. If you plan to organise an event, an initiative or a program during IYBSSD2022 (between now and the closing ceremony in June 2023), and you would like to get an official endorsement by the Steering Committee, please submit your proposal [here](#).

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## 8. SCAR Fellowships 2022 – Call for Applications

The Scientific Committee on Antarctic Research (SCAR) launched its [2022 Antarctic-related Fellowships for early-career researchers](#). Following the recent launch of the [Polar Initiative](#), the [Prince Albert II of Monaco Foundation](#) has funded an additional SCAR Fellowship and as a result SCAR will offer in total four to five Fellowships of up to USD 15,000 each for 2022. The details for the SCAR scheme will be similar to previous years but with the opportunity for applicants to propose partly or entirely remote Fellowships to reflect the impact of COVID-19 related travel restrictions.



The deadline for the SCAR Fellowship applications is **31 August 2022**.

Find out how to apply for the Fellowship [here](#).

The SCAR Secretariat has compiled a list of [frequently asked questions](#), where you can also find an overview of [past and present SCAR Fellows](#).

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## 9. Awards and Honours

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

The winner of the 2022 Tison Award is **Alexander Ross** (USA) for his work on the 2020 Hydrological Sciences Journal paper: Alexander Ross & Heejun Chang (2020), [Socio-hydrology with hydrosocial theory: two sides of the same coin?](#), Hydrological Sciences Journal.

*The IAHS Tison Award, established in 1982, aims to promote excellence in research by young hydrologists. The Award is granted for an outstanding paper published by IAHS in a period of two years previous to the deadline for nominations. The description of the award is available [here](#).*

### *IUGG Commission on Mathematical Geophysics (IUGG-CMG)*

The Vladimir Keilis-Borok Medal 2022 was awarded to **Frederik Simons** (Princeton University, USA) for "his outstanding contributions to mathematical geophysics and development of cutting-edge mathematical methods in geoscience data analysis."

Frederik Simons is Professor and Associate Chair of Geoscience Department at Princeton University, USA. Professor Simons is a "geologically inspired, geophysically educated, computationally motivated and mathematically minded geoscientist interested in the seismic, mechanical, thermal and magnetic properties of the Earth's lithosphere - and of the terrestrial planets and moons. He analyses complex, large, and heterogeneous geophysical data sets, and designs theoretical and computational inverse methods and statistical techniques to be able to do so, especially for partially observed processes modelled on a sphere. Professor Simons develops a floating hydrophones program to open up the sparsely instrumented oceanic domains for global tomography."

*The Vladimir Keilis-Borok Medal was established in 2021 to recognise middle career scientists, who made important contributions to the field of mathematical geophysics. The aim of the Medal is to honour the legacy of Keilis-Borok – a visionary science leader and organiser, prolific mathematical geophysicist, the CMG founder, and former IUGG President – in promoting transformative scientific advancement and selfless leadership.*

### *German Geophysical Society (DGG, German: Deutsche Geophysikalische Gesellschaft)*

The DGG has awarded **Mioara Mandea** (IAGA President, 2019-2023; France) with its prestigious 2022 Emil Wiechert Medal for her outstanding scientific achievements in the fields of geomagnetism and potential field observation from satellites and ground to historical archives. Mioara's work makes significant contributions and ranges from aspects of modern data acquisition from ground and satellites and the utilisation of historical data to various aspects of the magnetic core and lithospheric field. Her innovative interdisciplinary work focuses on the connection between geomagnetism and gravimetry. She rendered outstanding services to the International Geomagnetic Reference Field (IGRF) and contributed to the first World Digital Magnetic Anomaly Map. Through the initiation of the DFG Priority Program (SPP) "Planetary Magnetism" she has given decisive impetus to strengthen the research field in Germany.

*The Emil Wiechert Medal of the DGG is granted for outstanding scientific achievements in geophysics. The description of the medal and its former awardees is available [here](#) (German only).*

***Congratulations!***

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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](#).

### *April*

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

### *May*

- 15-20, AGU, Atlanta GA, USA, [AbSciCon22 - Origins and Exploration: From Stars to Cells](#)
- 18-20, IAPSO, IUGG, Menorca, Spain, [2nd World Conference on Meteotsunamis](#)
- 22-27, JPGU, Chiba, Japan, [Japan Geoscience Union Meeting 2022](#)
- 23-27, EGU, Vienna, Austria, [EGU General Assembly 2022](#)
- 29-3 June, IAHS, Montpellier, France, [IAHS Scientific Assembly](#)

### *June*

- 1-3, IAG, Zagreb, Croatia, [EUREF 2022 Symposium](#)
- 6-11, ISPRS, Nice, France, [International Society for Photogrammetry and Remote Sensing Congress 2022](#)
- 7-17, IACS, McCarthy AK, USA, [International Summer School in Glaciology](#)
- 12-17, IAVCEI, Heraklion, Greece, [Cities on Volcanoes \(COV11\)](#)
- 13-15, IAG, IUGG, Potsdam, Germany, [1st Workshop on Data Science for GNSS Remote Sensing](#)
- 13-17, IAG, Milan, Italy, [10th Hotine-Marussi Symposium](#)
- 19-24, IACS, Juneau AK, USA, [International Symposium on Maritime Glaciers \(IGS2022\)](#)
- 19-24, AGU, San Juan PR, USA, [2022 Frontiers in Hydrology](#)
- 20-22, IUGG, IASPEI, ILP, GFZ, Potsdam, Germany, [Cermak7 – VII International Meeting on Terrestrial Heat Flow and the Thermal Structure of the Lithosphere](#)
- 20-23, CODATA, WDS, Seoul, Rep. of Korea, [International Data Week 2022. Data to Improve our World](#)
- 20-24, CMG, Seoul, Rep. of Korea, [33rd IUGG Conference on Mathematical Geophysics \(CMG2022\)](#)

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

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