



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

IUGG Centennial | 1919-2019 | Centenaire de l'UGGI

The IUGG Electronic Journal

Volume 19 No. 10 (1 October 2019)

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 on the IUGG [website](#). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

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1. IUGG welcomes Latvia

An application for the admission of Latvia to IUGG as an Associate Member was received from the Latvian Academy of Sciences. The IUGG Executive Committee welcomed this application, and it was placed before the IUGG Adhering Bodies in regular status (dues paid) for a vote by correspondence. The vote is now complete, and the application was accepted unanimously. According to the IUGG Statutes and By-Laws, the membership of Latvia is provisional until the approval of the vote by the IUGG Council. Congratulations to the new officers of the Latvian National Committee for Geodesy and Geophysics! They are

Janis Kaminskis (President and IAG Correspondent),
Armands Celms (Secretary General),
Kristaps Lamsters (IACS),
Gunārs Silabriedis (IAG),
Juris Burlakovs (IAGA and IAVCEI),
Uldis Bethers (IAHS),
Tija Sīle (IAMAS),
Vilnis Frišfelds (IAPSO), and
Janis Karušs (IASPEI).

2. IUGG – The People at the Forefront

Note from the Editors: This new regular item provides a personal portrait of the people who steer IUGG and its associations during the present quadrennium. Enjoy getting to know our individuals. Today, our President has the floor!

Kathryn A. Whaler, President 2019-2023

I studied geography along with physics and mathematics in high school, and considered a BSc in Geophysics. But in the end I obtained a BSc in Mathematical-Physics from the University of Sussex. However, I retained my interest in geophysics, and moved to Cambridge for my PhD at what was then the Department of Geodesy and Geophysics¹. There I put most of the skills I'd learnt as an undergraduate to use, studying geomagnetism and in particular applying the relatively new subject of geophysical inverse theory to modelling the magnetic field and inferring the core flow at the core-mantle boundary. I stayed on at Cambridge as a Post-Doc, holding a competitive Research Fellowship. Encouraged by my PhD supervisor, I spent time at the Institute of Geophysics and Planetary Physics at Scripps Institution of Oceanography, and the University of Colorado at Boulder, which helped significantly in establishing my career. From Cambridge I obtained a tenured post at the University of Leeds, and had my first exposure to applied and field-based geophysics through teaching on an MSc course in Exploration Geophysics! Up until that point, I had used geomagnetic observatory and satellite data for my research, but at Leeds I had the opportunity to do my first fieldwork-based research project, in Zimbabwe. This was my first return to Africa since a year spent in Uganda as a teenager, and renewed my fascination with the continent, encouraging me to continue to collaborate with scientists there. Many more African field campaigns have followed, as well as on other continents. I moved to my current post as Professor of Geophysics at the University of Edinburgh 25 years ago. Research visits and sabbaticals have greatly enriched my career, including the opportunity to work on low orbit satellite magnetometry data from Mars and the Moon.



Kathy Whaler during field work in Ethiopia (left) and at the centennial event in Paris (right)

My first involvement with IUGG was presenting at the IAGA Scientific Assembly in Edinburgh in 1981. But almost immediately I realised that IAGA (and, by extension, IUGG) was much more than just a conference, since I participated in Working Group and Business Meetings, for instance, agreeing on Reference Geomagnetic Fields, and saw Resolutions passed. Besides helping me understand better the context of my research, through these meetings I got to know all the 'big names' in the subject from around the world in a less formal setting, and understand the value of international agreements on matters like reference models and 'scientific diplomacy'. I also witnessed the establishment by IUGG of the Commission on Studies of the Earth's Interior (SEDI). I have attended

¹ now the Bullard Laboratories of the Department of Earth Sciences

most IAGA Scientific and IUGG General Assemblies since, as well as several SEDI biennial meetings. As an early career scientist, convening symposia and chairing sessions at these meetings was interesting – and sometimes challenging! – as well as helpful for my CV.

I have spent more time than most of my male peers on what might loosely be called ‘community service’ – whatever my career stage (from early career right through to my current senior professorship). I’ve been asked more often owing to the small numbers of equivalent female scientists, and I feel it is important to have female role models and try to be one myself. I’m aware that it’s an additional burden and can detract from research activity, and the issues of unconscious (and conscious!) bias that can arise from the resulting non-traditional CV. On the other hand, I have learnt a huge amount from these activities, and been rewarded by Presidency of the Royal Astronomical Society (RAS, the learned body that also covers solid Earth geophysics in the UK), of IAGA and now IUGG (amongst other such honours), and have received the RAS’ Service Award and made an Officer of the Order of the British Empire for service to geophysics. I’ve also been honoured for my research by various awards (e.g. Fellowship of the American Geophysical Union) and invited lectures. I look forward to my term as your President, and I hope we can join together to maintain and strengthen the Union, and continue the activities that distinguish it from other international organisations.

3. IUGG Grants Program 2020-2023

IUGG continues its Grants Program for 2020-2023, which will complement the Union program of funding symposia and workshops organised or co-sponsored by Union Associations and Union Commissions (see item 4 of this issue). 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 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 2020-2021 is USD 80,000. The same amount of funds is reserved for 2022-2023. 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 2020 for the first call and 1 April 2022 for the second call. Following a biennial 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 2020 (and 1 July 2022, respectively).

Grants will be made for periods of one or two years commencing from 1 August 2020 (and 1 August 2022, respectively). 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 2021 (31 October 2023, respectively) 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](#).

4. IUGG Symposia Support 2020

The program of IUGG support for scientific meetings (e.g. workshops, advanced schools, symposia) is one of the most important means by which the Union and its Associations pursue a goal of promoting geophysics and geodesy through international collaboration. A fraction of the IUGG's budget is devoted to the support of these scientific meetings. The IUGG Executive Committee places great emphasis on maintaining high scientific standards, coverage of a balanced spectrum of topics, and an appropriately broad and international flavor for the scientific program of the meetings. In that respect, the ISC rules on non-discrimination in the access of qualified scientists from all parts of the world to any IUGG-sponsored meeting apply.

The number of co-sponsored meetings ranges from 10 to 15 (up to USD 2,000 each). Accordingly, not all meeting proposals worthy of support can be awarded IUGG sponsorship. The following guidelines for obtaining IUGG sponsorship should be observed by prospective proposers:

- IUGG-sponsored scientific meetings should have a well-defined and scientifically relevant theme, should be scheduled at a propitious time for significant progress in the field, and should be of interest to young researchers as well as senior experts.
- While the IUGG embraces all fields in geophysics and geodesy, a proposed program should maintain a balanced scope relevant to IUGG Associations. Each proposal will be judged on its own scientific merits.
- Given the international nature of the Union, meetings are by definition internationally oriented. This requires a well-balanced geographical distribution.

Normally, the initiative to propose a scientific meeting for IUGG sponsorship originates from a group of scientists in a certain field. Prospective meeting organisers should contact the respective

Association Secretary General (ASG) well in advance of their intended proposal submission, by sending a request for IUGG support until **15 October 2019**.

The scientific merit of each scientific meeting's proposal will be evaluated by the respective ASG, taking into consideration comments and advice received from the Association Executive Committee. The ASGs should communicate their recommendation for selection to the IUGG Secretary General before **31 October 2019**.

The allocations will be suggested by the IUGG Secretary General and reviewed by the Members of the IUGG Bureau to assure impartiality. The Bureau will decide on the final selection of the meetings to be supported. The decision on IUGG support will be communicated to the ASGs by the IUGG Secretary General in a letter of award as soon as possible but not later than **1 December 2019**. The IUGG support should be acknowledged in all documents related to a sponsored meeting (e.g. in the scientific program, on the website, brochures, publications of proceedings etc.)

More information is available [here](#).

5. IUGG2019 - Photos

Photos of the XXVIIth IUGG General Assembly 2019 (IUGG2019) are now available for [download](#).

6. IUGG and ICTP continue cooperation in geoscience education

IUGG and the Abdus Salam International Centre for Theoretical Physics (ICTP) will continue cooperation in geosciences education. On 5 September 2019, ICTP Director Fernando Quevedo and Alik Ismail-Zadeh, on behalf of IUGG President Kathryn Whaler, signed a Memorandum of Understanding (MoU) to promote educational programs related to geodesy and geophysics for 2020-2023. The agreement encourages collaboration in the organisation of advanced schools/workshops in geodesy and geophysics at ICTP or in economically less developed countries.



ICTP Director F. Quevedo (left) and A. Ismail-Zadeh (right) after the MoU signing

Founded in 1964 by the late Nobel Laureate Abdus Salam and co-sponsored by UNESCO, IAEA, and the Italian government, the Abdus Salam International Centre for Theoretical Physics ([ICTP](#)) seeks to accomplish its mandate by providing scientists from developing countries with the continuing education and skills that they need to enjoy long and productive careers. ICTP has been a major force in stemming the scientific brain drain from the developing world. The impact of ICTP extends well beyond the Centre's facilities to virtually every corner of the Earth. The Earth System Physics (ESP) Section of ICTP studies a wide spectrum of the Earth-system, from its fluid components (oceans and the atmosphere) to the planet's interior. In 2011, IUGG and ICTP agreed to enhance geophysical and geodetic education and science collaboration and signed the first Memorandum of Understanding to promote educational programs related to geodesy and geophysics for 2012-2015. In 2015, the second MoU was signed to extend cooperation between IUGG and ICTP for the next quadrennial (2016-2019).

7. IAPSO Call for Best Practice Study Groups

The International Association for the Physical Sciences of the Oceans (IAPSO) is issuing a Call for Best Practice Study Groups. Up to USD 10,000 is available to assist in bringing together experts with a view to reaching agreement about improved ways of analysing data, or otherwise improving the way we conduct oceanographic research. Closing date is **15 November 2019**.

More information is available [here](#).

8. ILP Evgueni Burov Medal: Call for Nominations

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 2020 in Vienna, Austria.

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

All proposals must be received by the [ILP Secretariat](#) before **31 October 2019**.

9. ISC - News from the International Science Council

Advancing Science as a Global Public Good: Action Plan 2019 – 2021

The International Science Council announced its Action Plan over the next two and a half years. Its most important purpose is to form a practical framework for the ISC's work until the end of 2021, and to work towards the ISC's vision of science as a global public good. The Action Plan marks the culmination of many months of the ISC Governing Board discussions, consultation within the ISC membership and with the broader international science community. It represents an ambitious program of important initiatives that will position the ISC as an impactful global voice for science in four domains: (i) The 2030 Agenda for Sustainable Development, (ii) The Digital Revolution, (iii)

Science in Policy and Public Discourse, and (iv) The Evolution of Science and Science Systems. More information on the ISC Action Plan can be found [here](#).

Launch of the Global High-Level Synthesis of Major Advancement in International Climate Science

The world's leading climate science organizations joined forces to produce a new report for the [United Nations Climate Action Summit 2019](#), underlining the gap between agreed targets to tackle global warming and the actual reality. The Report, *United in Science*, includes details on the state of the climate and presents trends in the emissions and atmospheric concentrations of the main greenhouse gases. It highlights the urgency of fundamental socio-economic transformation in key sectors such as land use and energy in order to avert dangerous global temperature increase with potentially irreversible impacts. It also examines tools to support both mitigation and adaptation. The part of the Report, which is related to continued decrease of sea ice and ice mass, is based on the data on observed annual specific mass-change rate of all reference glaciers develop by the World Glacier Monitoring Service (WGMS) of the IACS/IUGG.

“This important document by the United Nations and global partner organizations, prepared under the auspices of the Science Advisory Group of the Climate Action Summit, features the latest critical data and scientific findings on the climate crisis. It shows how our climate is already changing, and highlights the far-reaching and dangerous impacts that will unfold for generations to come”, said António Guterres, United Nations Secretary-General. ISC President Daya Reddy said at the launch event of the Report at the UN Headquarters in New York on 22 September that “the scientific findings presented in the synthesis report initiated by the Science Advisory Group convey with clarity and authority the stark reality of an existential crisis; one that is of our own making”. More information about the Report “United in Science” can be found [here](#).

Contributed by Alik Ismail-Zadeh, ISC Secretary

10. Meeting calendar

October

- 1, IAG, Paris, France, [ILRS Analysis Standing Committee \(ASC\) meeting](#).
- 1-4, IAG, Saint Petersburg, Russia, [5th IAG Symposium on Terrestrial Gravimetry: Static and Mobile Measurements \(TG SMM 2019\)](#).
- 2-4, IAG, Paris, France, [GGOS/IERS Unified Analysis Workshop](#).
- 7-9, IAG, Paris, France, [Journées 2019: Astrometry, Earth Rotation and Reference Systems in the Gaia era](#).
- 10, BIPM, IAG, Sèvres, France, [BIPM Workshop on Advanced Time and Frequency Transfer](#).
- 13-18, AGU, Selfoss, Iceland, [Chapman Conference on Large-scale Volcanism in the Arctic: The Role of the Mantle and Tectonics](#).
- 14-18, AGU, Polson MT, USA, [Chapman Conference on Winter Limnology in a Changing World](#).
- 14-18, WCRP, Beijing, China, [International Conference on Regional Climate. ICRC-CORDEX 2019](#).
- 19-20, IAHS, Nanjing, China, [STAHY 2019](#).
- 21-24, AGU, Valencia, Spain, [Chapman Conference on Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales](#).
- 21-25, IAG, Stuttgart, Germany, 2019 [ILRS Technical Workshop](#).

- 22-25, IAMAS, WCRP, Madrid, Spain, [DynVarMIP workshop on atmospheric circulation in a changing climate](#).

November

- 4-8, COSPAR, IAMAS, Herzliya, Israel, [4th Symposium of the Committee on Space Research. Small satellites for sustainable Science and Development](#).
- 6-8, IAMAS, Santiago, Chile, [19th GEIA Conference – The Global Emission Initiative’s efforts to accelerate societal transformations](#).
- 11-14, IAG, Rio de Janeiro, Brazil, [GGOS Days 2019 and SIRGAS Symposium 2019](#).
- 11-15, IAGA, Pilar and Cordoba, Argentina, III Pan-American Workshop on Geomagnetism. Web: TBA
- 18-22, IAGA, Rancagua, Chile, [6th biennial LATINMAG 2019](#).
- 18-20, IAMAS, Boulder CO, USA, [Atmospheric Tomography Mission \(ATom\) Science Team Meeting](#).
- 20-23, ISC, UNESCO, Budapest, Hungary, [World Science Forum 2019](#).
- 25-27, IAHS, Paris, France, Sécheresses, étiages et déficits en eau. Web: TBA

December

- 2-6, IUGG, ICTP, Manila, Philippines, [Workshop on Distilling Climate Information for Sectoral Applications](#).
- 9-13, AGU, San Francisco CA, USA, [American Geophysical Union 2019 Fall Meeting](#).

IUGG Electronic Journal Volume 19 Number 10 (1 October 2019)

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

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