



INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE

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This informal newsletter is intended to keep IUGG Member National Committees informed about the activities of the IUGG Associations, and actions of the IUGG Secretariat. Past issues are posted on the IUGG website (<http://www.iugg.org/publications/ejournals/>). Please forward this message to those who will benefit from the information. Your comments are welcome.

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1. Change of the IUGG Statutes and By-Laws

The IUGG Bureau proposed several changes to the Statutes and By-Laws to further strengthen the efficiency of the IUGG Bureau and Finance Committee, contributing to the IUGG Strategic Plan (2016-2023) major goal related to improvements in IUGG management. After consultations with the IUGG Council on the changes proposed, on 5 March 2018 the Council was invited to vote on them. Electronic voting was open for one calendar month from the date of announcement. On 5 April, the changes to the Statutes and By-Laws were approved unanimously. To provide continuity in administration and management of the Union, the position of Vice-President was replaced by President-Elect, who becomes President of the Union in the following term of office. Duties of the President-Elect were defined. The number of members of the Finance Committee was reduced from 4 to 3 people. The IUGG Secretary General and Treasurer can hold office a maximum of three terms, Bureau Members at large and Finance Committee members can hold office a maximum of two terms. The immediate Past President can now vote at the Executive Committee.

2. Call for IUGG Bureau and Finance Committee nominations

The IUGG Council, at its final meeting in Montréal, Canada, on 16 July 2019, will elect the IUGG Bureau and Finance Committee Members for the coming quadrennium (2019-2023). These include the President, President-Elect, Secretary General, Treasurer, 3 Members of the Bureau, and 3 Members of the Finance Committee. The IUGG President Michael Sideris appointed the Nominating Committee as follows: Tom Beer (Australia), Chair; Jaime Urrutia Fucugauchi (Mexico), Michelle Grobbelaar (South Africa), and Kuniyoshi Takeuchi (Japan). On 8 April 2018, the official representatives of the Adhering Bodies of the Member Countries as well as IUGG and Association officers were 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 8 October 2018. The nominations should be submitted *electronically* to IUGG Executive Secretary / Assistant Secretary General 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 Body National Committees and the officers of the Union and Associations to be received by 8 November 2018. The second deadline is 8 April 2019. 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 8 May 2019. The By-Laws permit re-nominations following the closure of the first Council Meeting at the General Assembly.

3. The IUGG Gold Medal: Call for nominations

The Gold Medal is the highest honor of the International Union of Geodesy and Geophysics, established in 2013 and awarded to Earth and space scientists for outstanding contributions to geodesy and geophysics and for unselfish international cooperation in research. Submission of nominations for the IUGG Gold Medal opens on **20 May 2018** and closes on **20 October 2018**. The Gold Medal Recipient will receive a Medal, a certificate, and be awarded Honorary Membership of IUGG. The Medal will be presented at the Award Ceremony of the XXVII IUGG General Assembly in Montréal, Canada, on 13 July 2019, following the announcement of the award on 5 February 2019. The IUGG Gold Medal Committee was appointed by the Union President Michael Sideris. The Committee consists of the chair and eight members:

| | | |
|-----------------|--------------------------------|----------------|
| <i>Chair:</i> | Uri Shamir (IAHS) | ISRAEL |
| <i>Members:</i> | Jeffrey Freymueller (IAG) | USA |
| | Brian Hoskins (IAMAS) | UK |
| | Valerie Masson-Delmotte (IACS) | FRANCE |
| | Trevor McDougall (IAPSO) | AUSTRALIA |
| | Inez Staciarini Batista (IAGA) | BRAZIL |
| | Roberto Sulpizio (IAVCEI) | ITALY |
| | Zhongliang Wu (IASPEI) | CHINA |
| | Alik Ismail-Zadeh (ex-officio) | GERMANY/RUSSIA |

Details about the IUGG Gold Medal, including the procedure for nomination, eligibility criteria, and technical requirements, can be found at: http://www.iugg.org/honors/Gold_Medal.pdf

4. Annual Report 2017

The IUGG Annual Report provides a summary of the activities of the Union including its Associations, Union Commissions and Programs. IUGG thanks all who contributed to the report. The Annual Report 2017 is available at: <http://www.iugg.org/publications/reports/report2017.pdf>. We invite you to download this impressive summary of last year's activities.

5. AGU and IUGG to celebrate their centennial with a series of meetings on disaster science



The International Union of Geodesy and Geophysics (IUGG) and the American Geophysical Union (AGU) will celebrate the centennial of their founding in 2019. AGU and IUGG wish to foster a dialogue on the growth of science and its impacts over the past 100 years, especially in the area of disaster science. To that effect, AGU-IUGG agreed to organize (i) a Centennial Workshop on Natural Hazards and Disaster Science on 9 December 2018 before the AGU 2018 Fall Meeting in Washington, D.C., USA, and (ii) a Symposium on Georisk Reduction: Science, Resources, and Governmental Action on 14 July 2019 at the 27th IUGG General Assembly in Montreal, Canada. The meetings will focus upon the mitigation of disasters caused by natural events that may exact significant and growing global economic losses and human misery. Annual global economic losses from geological, hydro-meteorological, and climatic events are projected to approach US\$300 billion per year within the next decade. Individual events in the 21st century have caused immense economic and human life losses (e.g., the 2004 Indian Ocean earthquake- and tsunami-induced disaster claimed ~ 250,000 human lives; in 2005 Hurricane Katrina caused ~ US\$250 billion and the 2011 Tōhoku mega-thrust earthquake and resultant tsunami caused ~ US\$360 billion in economic losses). Numerous studies have contributed to a set of recommendations on how to address this growing challenge to global society. AGU and IUGG expect that these meetings will create mechanisms for improved coordination between scientists, engineers, decision-makers, disaster managers, and funding agencies to address the challenges of growing impacts of natural hazards upon our society. The Memorandum of Understanding to implement the events was signed by Christine W. McEntee, AGU Executive Director and CEO, and Alik Ismail-Zadeh, IUGG Secretary General, on 10 April 2018 in Vienna, Austria.

6. The 27th IUGG General Assembly

The 27th General Assembly of the International Union of Geodesy and Geophysics will take place from 8 to 18 July 2019 in Montréal, Canada. The year 2019 marks the 100th anniversary of IUGG. More than 5,000 geoscientists from all IUGG disciplines are expected to take part in a comprehensive scientific program under the slogan “Beyond 100: The next century in Earth and Space Science”. The website of the General Assembly is now online and will be updated regularly: <http://www.iugg2019montreal.com>. Please spread the word!

On 8 April 2018, the Science Program Committee (SPC) for the 27th IUGG General Assembly (IUGG2019) met in Vienna, Austria. The SPC for the IUGG2019 discussed the scope and co-conveners of Union and Inter-Association Symposia as well as scheduled the Union Symposia and Union Lectures. The IUGG President Michael Sideris invited nine prominent scientists to deliver Union Lectures, including David Grimes, President of the World Meteorological Organization. On 12 and 13 April, IUGG Secretary General Alik Ismail-Zadeh met Alain Carbonneau, a representative of the IUGG2019 organizing company, to discuss issues related to the management of the assembly. The Memorandum of Understanding between the IUGG and the LOC-Montreal was signed on 12 April 2018.

7. Report on the Second Atmospheric Composition and the Asian Monsoon Training School

Over 40 students and 9 lecturers from Bangladesh, China, India, Nepal, Pakistan, Thailand, Vietnam, Norway, Switzerland, and the United Kingdom attended the *Observations and Modeling of Atmospheric Chemistry and Aerosols in the Asian Monsoon* on 10-12 June 2017 at Jinan University, Guangzhou, China. This training event was organized within the framework of the joint IGAC¹-SPARC² activity, *Atmospheric Composition and Asian Summer Monsoon (ACAM)*. The third ACAM workshop held from 5 to 9 June 2017 at the same university preceded the training school. Specific goals of the training school were (i) to provide training of early career scientists on topics relevant to studying trace gases and aerosols in Asia particularly in connection with the Asian monsoon, (ii) to create a network of ACAM early career scientists, and (iii) to provide resources for improving their science and communication skills. Participants in the training school represented seven Asian and three European countries, with over 1/3 female participants. Participants were either current students (primarily graduate) or early career scientists within three working years of receiving their Ph.D., with interests in observations and modeling tools for applications to ACAM research.

¹ The International Global Atmospheric Chemistry (IGAC) Project in 1990. IGAC currently operates under the umbrella of Future Earth and is also sponsored by the International Commission on Atmospheric Chemistry and Global Pollution (iCACGP) of IAMAS/IUGG.

² The Stratosphere-troposphere Processes And their Role in Climate (SPARC) is a core project of the World Climate Research Programme (WCRP), which coordinates international efforts to bring knowledge of the atmosphere to bear on issues regarding climate variability and prediction.



Participants of the Training School (photo: Xuemei Wang)

Lectures ranged from satellite remote sensing through aircraft observations and analysis of long-term datasets to global and regional modeling of trace gases, aerosols, and meteorological parameters in the Asian monsoon region. A highlight of the school was the “Science and Communication Café”, in which three major topics were addressed. The first was a discussion and exercise on communicating science to the general public in the form of a press release. Participants were exposed to methods for effectively translating research findings, involving scientific terms, into non-technical and jargon-free language. The second topic discussed the organization of slides for oral presentations, for instance highlighting the logical balance between size and colors of text and figures and the importance of finishing a presentation with the summary/conclusion slide as the last slide, so that the audience can view the main points of the presentation during the question and answer period. The third topic was an exercise of creating a “science elevator speech”, a clear, brief message about a research finding and its broad significance (given in a few minutes, akin to the time it takes for people to ride in an elevator from the bottom to top of a building). These were all interactive exercises with group presentations of press releases by the participants. Other hands-on activities occurring during the training school were group tasks to propose an aircraft field campaign based on a topic relevant to ACAM, determine the type of instruments needed to address the objectives of the field campaign, and the modeling framework to forecast and analyze field campaign data. These hands-on activities created a collegial camaraderie among the participants and lecturers. The participants were enthusiastic about the “Science and Communications Café” and hands-on activities, suggesting that more time be spent on these practical exercises. They enjoyed the lectures on theory, which broadened their knowledge on observations and modeling. The lectures have been posted at the website <https://www2.acom.ucar.edu/acam/guangzhou-2017-training-school>. The website also contains information on other training schools and resources associated with the ACAM topic.

With the contributions from IUGG for geoscience education and outreach for developing countries and other sponsors (IGAC, IAMAS, SPARC, WCRP, ICIMOD, China Association for Science and Technology, Chinese Academy of Sciences, Key Laboratory of middle Atmosphere and Global Environment Observation of the Institute of Atmospheric Physics, Nanjing University of Information Science and Technology, Jinan University, The Jülich Research Center, NCAR Atmospheric

Chemistry Observations & Modeling Laboratory and NASA), travel support for 27 participants and 2 lecturers were provided.

Submitted by Mary Barth (USA), Federico Fierli (Italy), Ritesh Gautam (USA),
Xuemei Wang (China), Training School Organizers

8. Report on the Training School on Stratosphere-Troposphere Interactions

The Training school on Stratosphere-Troposphere Interactions was held from 2 to 5 September 2017 at the University of Cape Town, South Africa, following the IAPSO-IAMAS-IAGA Scientific Assembly in Cape Town, and attended by an enthusiastic group of 22 early career researchers from across the world. The school comprised three days of lectures and exercises, and a day dedicated to small projects. The lectures covered a broad range of topics with a focus on stratosphere-troposphere interactions. The school started with a lecture on mid-latitude meteorology, followed by a lecture on tropical dynamics. A guest lecture by Ted Shepherd on the psychology of climate science was held on the evening of the first day, before a small ice-breaker event also hosted at the University of Cape Town. The lectures on the second day dealt with stratospheric dynamics and chemistry. The topic of stratosphere-troposphere interactions was covered on the third day. To facilitate active participation, the students worked on mini-projects throughout the training school, which were presented in plenary on the afternoon of the last day of the school. The students were highly engaged and presented some excellent work on a variety of topics, despite the limited time available. The mini-projects covered topics ranging from the role of the Southern Annular Mode on Cape Town weather to the impact on tracer transport of the 2016 disruption of the quasi-biennial oscillation. The mini-projects were further developed after the training school into short documents, which are now available on the SPARC/WCRP website. Overall, the training school was very successful, and feedback from the group was extremely positive. In addition to the IUGG grant, the training school was made possible by crucial funding from the SPARC project of WCRP, the European Geosciences Union (EGU), and the Applied Centre for Climate & Earth Systems Science (ACCESS). More information on the Training School can be found at: <http://www.sparc-climate.org/meetings/training-school-on-stratosphere-troposphere-interactions>

Elisa Manzini (Germany) and Bernd Funke (Spain), Training School Organizers

9. News from the International Council for Science

ICSU to coordinate the External Review of IPBES

The Council will conduct the External Review of the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES). The decision was announced at the IPBES Plenary meeting in Medellín, Colombia. The meeting also saw the release of five new reports - regional assessments of biodiversity and ecosystem services and a global assessment on land degradation and restoration. Following an open call for Expressions of Interests and a separate call for nominations of experts to serve on the review panel at the end of last year, the Bureau of IPBES selected ICSU from among 18 applicants to coordinate the review, as well as 10 experts to serve on the review. The Chair of IPBES, Robert Watson commented on the relevance of ICSU to undertake such a task, especially in the context of its merger with ISSC and the closer integration with the social sciences.

Pavel Kabat appointed WMO Chief Scientist and Research Director

The World Meteorological Organization (WMO) has appointed Pavel Kabat as its first chief scientist and research director, with responsibility for strategic scientific direction, including WCRP. Pavel Kabat is currently Director-General and Chief Executive Officer of the International Institute for Applied Systems Analysis (IIASA) based in Laxenburg, Austria. Pavel Kabat has been involved in the activities of the International Association of Hydrological Sciences (IAHS) and IUGG for many years. In his new role, Kabat will maintain close interactions with WMO Members, partners, and sponsoring organizations to ensure that their strategies and priorities are reflected in WMO programs. Kabat will also be responsible for building strategic research partnerships and coordinating active dialogue between science and operations, and promoting measures to ensure a more integrated research effort across all WMO activities. He is also expected to further advance WMO contributions to the UN Sustainable Development Goals agenda. Trained as a mathematician and hydrologist, Professor Kabat's almost-30-year research career has covered earth system science and global change, with a specific focus on land-atmosphere interactions, climate hydrology, the water cycle, and water resources.

Reducing the Gender Gap in Natural Sciences and Mathematics

The workshop "Global approach to the gender gap in the natural sciences and mathematics: How to measure it, and how to reduce it?" was organized in San Salvador, El Salvador on 15-16 March 2018 by the Regional Office for Latin America and the Caribbean of the International Council for Science (ICSU-ROLAC), the Ministry of Education of El Salvador (MINED), the Vice Ministry of Science and Technology of El Salvador; and the Committee for Women in Mathematics of the International Mathematica Union (CWM-IMU). Several experts from all over Latin America were in attendance, contributing their expertise on the subject. This workshop addressed the problem of the gender gap in mathematics and sought to share "good practices", define and propose concrete actions in the medium and long-term to significantly change the landscape of mathematics in Latin America and the Caribbean. The workshop featured lectures on topics such as: "Building bridges – educating girls and women in STEM"; "Women teachers of Mathematics in El Salvador. Presenting the current panorama"; "Mathematics is the Language of Physics", amongst others. Debates, panels, discussions, group work, and presentations were held during the workshop, which attracted the attention of about 700 people, mostly teachers at various academic levels, and students related to natural sciences and mathematics.

Source: ICSU website

10. Meeting calendar

A calendar of meetings of interest to IUGG disciplines (especially those organized by IUGG Associations) is posted on the IUGG website (<http://www.iugg.org/calendar.php>). Individual Associations also list more meetings on their websites according to their disciplines.

May

- 2-4, GEO, Frascati, Italy, 3rd GEO Data Providers Workshop. Web: http://www.earthobservations.org/me_201805_dpw.php
- 6-9, IAHS, Algiers, Algeria, International Conference on African Large River Basin Hydrology. Web: <http://friend2018.ensh.dz/Accueil.html>
- 6-11, IAG, Istanbul, Turkey, UN GGIM AP/IAG/FIG Technical Seminar on Reference Frames in Practice. Web: <https://www.fig.net/fig2018/rfip.htm>

- 6-11, IAMAS, IUGG, WCRP, Canmore, AB, Canada, 2018 GEWEX Science Conference "Extremes and Water on the Edge". Web: <https://www.gewexevents.org/events/2018conference/>
- 7-9, IAHS, WMO, Geneva, Switzerland, Global Conference on "Prosperity through hydrological services". Web: <http://hydroconference.wmo.int>
- 8-10, IAHS, Cordoba, Spain, RSHS'18, Remote Sensing & Hydrology Symposium. Web: <http://rshssymposiumcordoba2018.com>
- 12-14, IASPEI, IUGG, Chengdu, China, 12th General Assembly of the Asian Seismological Commission (ASC) together with the 4th International Conference on Continental Earthquakes (ICCE). Web: <http://www.4thicce.com/>
- 12-14, IAPSO, IUGG, Baku, Azerbaijan, Understanding the Problems of Inland Waters: Case Study for the Caspian Basin (UPCB). Web: <http://upcm2018.org/>
- 14-17, IASPEI, IUGG, Miami, FL, USA, 3rd General Assembly of the Latin American and Caribbean Seismological Commission (LACSC) and Seismological Society of America (SSA) joint meeting. Web: <http://seismology2018.org/>
- 14-19, IAGA, IAMAS, IUGG, SCOSTEP, Hefei, China, Long-Term Changes and Trends in the Atmosphere workshop (ICMA). Web: <http://trends2018.ustc.edu.cn/home.html>
- 21-25, IAMAS, IAPSO, SCAR, Nanjing, China, Summer School on the Polar Climate System. Web: <http://202.119.112.75/s/2159/t/2672/a/172397/info.jspy>
- 21-25, IAVCEI, Olot, Spain, 7th International Maar Conference. Web: <http://maar2018.com>
- 28 May - 1 June, URSI, Gran Canaria, Spain, AT-RASC 2018. Second URSI Atlantic Radio Science Meeting. Web: <http://www.atrasc.com/homepage.php>
- 30 May - 1 June, IAG, Amsterdam, Netherlands, EUREF Symposium 2018, Web: <https://euref2018.eventtouch.eu/>
- 30 May - 2 June, NC Turkey, Izmir, Turkey, TUJJBK 2018. Scientific Congress of the Turkish National Union of Geodesy and Geophysics. Web: <http://www.tujjbkongre2018.org/en/>

June

- 3-8, AOGS, Honolulu, HI, USA, AOGS2018. 15th Annual Meeting. Web: <http://www.asiaoceania.org/aogs2018>
- 3-8, IAG, Longyearbyen, Spitsbergen, Norway, 10th IVS General Meeting. Web: http://event.trippus.net/Home/GetContent/AEAKgINexbzL4CiuUetTDa3g1dTtEfiBEO6rlmTTQCBd02esN01IraDp2He0cAiBMqbFcggKFZr /AEAKgIOQ-p4F2ngZaONjRQGY8lcBzAq4plxWk17NdeVcjL-WW_8ek7SQGTxKcLOptgCsTbfsTDH8/eng/19099
- 5-15, IACS, IUGG, McCarthy, AK, USA, International Summer School in Glaciology. Web: <http://glaciers.gi.alaska.edu/courses/summer-school/2018>
- 10-16, IAGA, Checiny, Poland, 16th Meeting on Paleo, Rock and Environmental Magnetism, Web: <http://castle2018.igf.edu.pl>
- 11-12, GEO, Geneva, Switzerland, 2018 GEO Symposium. Web: http://www.earthobservations.org/me_201806_wps.php?t=climate
- 13-15, IAHS, Beijing, China, 8th International Water Resources Management Conference of ICWRS. Web: <http://iwrms2018.bnu.edu.cn>
- 15-26, SCAR, Davos, Switzerland, POLAR2018. Where the poles come together. A SCAR & IASC Conference. Web: <http://www.polar2018.org/>
- 16-21, IUGS, Vancouver, Canada, RFG 2018. Resources for Future Generations. Web: <http://www.rfg2018.org/rfg/2018/home>
- 17-22, IAMAS, Nara, Japan, ICAE 2018. 16th International Conference on Atmospheric Electricity. Web: <http://icae2018.saej.jp/>

- 18-20, IAG, GFZ, Potsdam, Germany, 1st Workshop on the International Geodynamics and Earth Tide Service (IGETS). Web: <https://isdg.gfz-potsdam.de/igets-data-base/igets-workshop-2018>
- 18-22, IAG, ICT, Rome, Italy, IX Hotine-Marussi Symposium on Mathematical Geodesy. Web: <https://sites.google.com/uniroma1.it/hotinemarussi2018>
- 23-28, CMG, IUGG, Nizhny Novgorod, Russia, 32nd IUGG Conference on Mathematical Geophysics (CMG). Web: <http://cmg2018.iapras.ru>
- 29-30, IAG, Wuhan, China, IAG workshop: Hydrogeodesy. Web: <http://hydrogeodesy2018.csp.escience.cn>

July

- 1-7, NC Italy, Varenna, Italy, International School of Physics "Enrico Fermi" - Mechanics of Earthquake Faulting. Web: https://www.sif.it/corsi/scuola_fermi/mmxviii#202
- 2-6, GFZ, IAGA, IUGG, SCOSTEP, Potsdam, Germany, 7th IAGA/ICMA/CAWSES Workshop on Vertical Coupling in the Atmosphere-Ionosphere System. Web: <https://www.gfz-potsdam.de/sektion/geodaetische-weltraumverfahren/themen/vcais-2018/>
- 7-8, IAMAS, Vancouver, Canada, Workshop on Evaluation of Cloud Probe Processing Software (ICCP). Web: <http://www.iccp-iamas.org/news.html>
- 8-13, SEDI, Edmonton, Canada, SEDI 2018 - 16th Symposium of the Study of the Earth's Deep Interior. Web: <https://sedi2018.sciencesconf.org/>
- 9-12, IAMAS, IUGG, Boulder, CO, USA, ISARRA 2018 - International Society for Atmospheric Research using Remotely piloted Aircraft. Web: <http://isarra.colorado.edu/>
- 14-22, COSPAR, IAG, Pasadena, CA, USA, COSPAR 2018. Web: <http://cospar2018.org/>
- 15-21, IAG, Pasadena, CA, USA, IAG Commission 1 Symposium Reference Frames for Applications in Geosciences (REFAG2018). Web: <https://www.cospar-assembly.org/admin/sessioninfo.php?session=683>
- 16-18, IAMAS, Madison, WI, USA, 13th Workshop on Antarctic Meteorology and Climate (WAMC). Web: <http://amrc.ssec.wisc.edu/meetings/meeting2018/>
- 31 July - 1 August, IACS, Dunhuang, China, International Workshop on Cryospheric Changes and their Regional & Global Impacts. Web: http://www.cryosphericciences.org/downloads/2018_newsWorkshopDunhuang-firstAnnouncement.pdf
- 30 July - 3 August, IAPSO, IUGG, Buenos Aires, Argentina, X Jornadas Nacionales de Ciencias del Mar, Web: <http://jornadasdelmar2018.exactas.uba.ar>

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