

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

# **The IUGG Electronic Journal**

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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 <u>here</u>. 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 (XXXII): Andrew Mackintosh

After a medium-length break (since March 2023), we are now returning with our popular and successful 'People at the Forefront' column and continue with the newly elected members of the IUGG Executive and Finance Committees (2023-2027)



'We are beset'. With these words, my first trip to Antarctica in 2002 was at risk of delay or abandonment. Like Shackleton and many others before, we were stuck in sea ice and going nowhere. We had left Hobart on the Polar Bird, an ice-strengthened cargo ship (not an icebreaker) in November 2001. Our destination was Mawson Station, but we became trapped by heavy pack ice as we approached the continent. Six weeks later, after a different ship and helicopter came to our rescue, I stepped onto Antarctica for the first time. And three months after that I started my first permanent job as an academic in Wellington, New Zealand, having accepted the offer by FAX from the ship, and arrived six weeks late with many apologies to my new colleagues and students.

Andrew Mackintosh on Brewster Glacier in the Southern Alps of New Zealand in February 2023 Fast forward more than twenty years and I am delighted to have been elected as Bureau Member in IUGG, the first member from the relatively new International Association of Cryospheric Sciences (IACS) which formed in 2007. I am an earth and climate scientist with a passion for international science stewardship. I started my connection with IUGG back in 2011 when I became Secretary General of IACS, a position I held until 2019. Since then, I have been Vice President of IACS, and I have held other roles within and outside of IUGG, for example in the Intergovernmental Panel for Climate Change (IPCC) and the Scientific Committee for Antarctic Research (SCAR). All these activities have massively increased my enjoyment of science and its people, and I hope they have also helped our community.



MV Polar Bird beset in sea ice near Amery Ice Shelf, December 2001. Insets: A minke whale visitor and learning to abseil from the ship deck. Images courtesy of the <u>ANARE Club</u>

I grew up in Melbourne, Australia, on the only landmass without glaciers where being a glaciologist provokes curious questions. But Antarctic research is important to Australia which maintains four permanent bases (Mawson Station, the oldest, just turned 70). I first learned about glaciology as an undergraduate student at the University of Melbourne. After a year at the University of Newcastle (Australia) where I worked on reconstructing past glaciation from landscape evidence, I travelled to Europe for my PhD on modelling Icelandic glaciers at the University of Edinburgh. After a post doc about the Greenland Ice Sheet in the Institute for Marine and Atmospheric Research at Utrecht University, I signed up for my first Antarctic trip, thinking things would go smoothly...

Antarctic research and field work in general requires a flexible, inclusive, and consultative mindset and it has influenced my thinking about academic leadership. For example, being stuck in sea ice was magical for me; I did not have a family at the time, I had an office with a magnificent view, and we were surrounded by penguins, seals, and whales. But now with more responsibility and a family at home it would be very challenging. Universities contain people from all backgrounds, nationalities, career stages, genders, and running a successful department means listening, being flexible and fair, and providing the space and support for people to succeed on their own terms.

After a rewarding 17 years in Wellington where I was promoted from Lecturer to Professor and Director of the Antarctic Research Centre (our centre won the New Zealand Prime Minister's Science Prize in 2019), I moved home to Melbourne just before the pandemic struck. I am now the Head of the School of Earth, Atmosphere and Environment at Monash University, and a Theme Leader within

the Australian Research Council Special Research Initiative 'Securing Antarctica's Environmental Future'. Lately my focus has been on academic leadership, which has allowed me to spend time on what I really care about – directing impactful science on the causes and consequences of glacier and ice sheet retreat, influencing policy and government, developing the careers of early-career scientists, and fighting inequality in science particularly with respect to gender and diversity.

I still work in Antarctica and New Zealand where I have long-standing, fruitful and rewarding collaborations, and I have started working with Indian and Chinese scientists on



Drang Drung Glacier, Ladakh, India. October 2023. Photo by Andrew Mackintosh

the impacts of retreating Himalayan glaciers on river flows, sea level rise and biodiversity. This recently took me to Ladakh in India, a windswept and barren landscape high on the Tibetan Plateau in the lee of the Greater Himalaya Range.

Studying the Cryosphere naturally involves different fields of science and I see one of my roles as Bureau Member as building connections. For example, the next International Polar Year (IPY) is coming up in 2032/2033 and the cryosphere is a major focus. Climate change is driving ice retreat worldwide, and this is due to warming of the oceans (IAPSO) and atmosphere (IAMAS). One of the greatest impacts of ice retreat is on river flows (IAHS). We can monitor changes in the cryosphere using seismology (IASPEI) and gravity (IAG). Volcanoes occur under West Antarctica where ice is retreating rapidly. What role do they play? (IAVCEI). And polar observations are important to research of magnetism and aeronomy of the Earth (IAGA).

What can IUGG do as a leading scientific union to further the goals of IPY? I look forward to discussing this with many of you.

#### 2. IUGG – Grants Program 2024-2027

IUGG continues its Grants Program for 2024-2027, 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 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, develop future international initiatives, and follow open science practices. 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 IUGG Associations or Union Commissions. Any grant application must involve at least two IUGG bodies (Associations or Union Commissions): a Lead Applicant + 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 nations and countries. Proposals should be global or regional in scope and involve a multi-national group, especially scientists from developing countries, women, and younger 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 2024-2025 is USD 100,000. The same amount of funds is reserved for 2026-2027. 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 2024 for the first call and 1 April 2026 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 June 2024 (and 1 June 2026, respectively).

Grants will be made for periods of one or two years commencing from 1 July 2024 (and 1 July 2026, 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 2025 (31 October 2027, respectively) and subsequently annually on the same date for all multi-year projects. A final technical report (incl. the highlights of the project; deliverables; recommendations) and a financial report (incl. details and invoices about the expenditures which are covered by the IUGG funds) are 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 <u>IUGG Secretariat</u> by request to IUGG Association or Union Commission Secretaries General.

Further information is available here.

# **3. IUGG – Partnership with the Standing Committee for Gender Equality in Science** (SCGES)



In order to promote gender equality in science, a number of <u>international organisations</u> established the Standing Committee for Gender Equality in Science (<u>SCGES</u>). SCGES aims to support women and girls to get access to science education, opportunities and equal treatments in their careers. SCGES (i) helps its partners to promote gender equality within their

organisations, (ii) follows the progress of the implementation by partners of the <u>recommendations of</u> <u>the Gender Gap in Science Project</u>, (iii) approves proposals for new partners to join SCGES, (iv) endorses <u>projects and initiatives</u> to promote gender equality in science proposed to it by partners, and (v) facilitates communication among partners, for instance by developing and maintaining its website.

The IUGG representatives to SCGES are Andrew Mackintosh and Athena Coustenis (deputy), who also serve as IUGG Bureau Members (2023-2027).

# 4. IACS-IAMAS-IAPSO Joint Scientific Assembly 2025 – Call for IACS Session Proposals



The International Association of Cryospheric Sciences (<u>IACS</u>) cordially invites you to submit symposium proposals for the Busan IAMAS-IACS-IAPSO Joint Assembly 2025 (<u>BACO-25</u>) until **1** March 2024.

BACO-25 will be held from 20 to 25 July 2025 at the Busan Exhibition and Convention Center (BEXCO) in Busan, Republic of Korea. The six-day event will bring together atmosphere, cryosphere and ocean scientists from around the globe to participate in scientific presentations and discussions, exchanges of information, and international earth science cooperation. Proposals for individual symposia are invited on topics within the remits of the International Association of Meteorology and Atmospheric Sciences (IAMAS), the International Association of Cryospheric Sciences (IACS) and the International Association for the Physical Sciences of the Oceans (IAPSO) and for joint symposia concerning interactions between two or three of the atmosphere, cryosphere and oceans.

See <u>https://cryosphericsciences.org/baco-25/</u> for details on symposium proposals.

#### 5. GOOS – Call for Nominations

The Global Ocean Observing System (GOOS) calls for nominations of new members of its Steering Committee, which governs and coordinates the components of GOOS and steers its work. Nominations can be submitted to the ISC Secretariat by e-mail to Katsia Paulavets (katsia.paulavets@council.science) by 7 March 2024.



GOOS is a collaborative system of ocean observations, encompassing in situ networks, satellite systems, governments, UN agencies and individual scientists with the mission to lead the ocean observing community and create the partnerships to grow an integrated, responsive, and sustained observing system, and a vision for a GOOS that delivers the information needed for sustainable development, safety and well-being.

#### 6. 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 2024. SCOR will probably be able to support two new working groups. Each new group will be provided with 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 2024 SCOR Annual Meeting scheduled to take place in Qingdao, China, from 16 to 18 October 2024.

Deadline for submission: 17 May 2024

More information about the call can be found <u>here</u>.

#### 7. IUGG Supported Meeting – Announcement

# *IUGG/IAGA/IAMAS – 12th International Workshop on Long-Term Changes and Trends in the Atmosphere*

We are excited to announce the 12th International Workshop on Long-Term Changes and Trends in the Atmosphere (25 years - the Silver Anniversary), with the support of the IUGG, IAGA, IAMAS, and SCOSTEP/PRESTO.

Date: 6-10 May 2024 Location: Ourense, Galicia, Spain



The workshop topics include:

- Long-term variations trends in the middle atmosphere
- Long-term changes and trends in the ionosphere and thermosphere

- Dynamic, physical, chemical, solar, and radiative mechanisms of long-term variations and trends
- Changes in the middle and upper atmosphere and links to satellite navigation and debris
- Miscellaneous

Registration and abstract submission are open. Please visit the workshop <u>website</u> for more information.

The Workshop Scientific Organizing Committee and the Local Organising Committee

#### 8. Awards and Honours

#### Geological Society of India

*Mioara Mandea* (France), IUGG President-Elect, was elected Honorary Fellow of the Geological Society of India.

#### Congratulations!

#### 9. Meeting Calendar

This calendar includes meetings which are planned to be organised under the umbrella of IUGG, and major conferences of IUGG's partner organisations (in *italics*). The calendar is updated regularly and is also available <u>online</u>. If you would like to add a meeting, or report changes, please contact the <u>IUGG Secretariat</u>.

#### March

- 3-6, IAHS, Roorkee, India, Roorkee Water Conclave 2024
- 4-8, IAG, Tsukuba, Japan, IVS 2024. 13th General Meeting and 25th Anniversary
- 6-7, IAG, Online, <u>Short Course on GNSS-IR for Water Level Measurements</u>
- 10-14, DGG, Jena, Germany, <u>84th Annual Meeting of the German Geophysical Society</u>
- 13-15, IUGG, IAG, IAMAS, Baltimore MD, USA, <u>ITU/WMO/UNEP Focus Group on AI</u> for Natural Disaster Management
- 21-29, IACS, Edinburgh, UK, <u>Arctic Science Summit Weak</u>

# April

- 1-5, IUGG, IAMAS, Cargèse, Corsica, France, <u>Molecular Understanding of Atmospheric</u> <u>Aerosols Workshop and School</u>
- 10-12, UNESCO-IOC, Barcelona, Spain, <u>Ocean Decade Conference</u>
- 8-12, ESA, Copenhagen, Denmark, Swarm 10 Year Anniversary & Science Conference 2024
- 14-19, EGU, Vienna, Austria, <u>EGU General Assembly 2024</u>

#### May

- May, IUGG, IASPEI, France, Marine heat flow: assessment of the Southern Hemisphere and kick-off for the development of marine heat flow as an Essential Ocean Variable
- 6-10, IUGG, IAGA, IAMAS, Ourense, Spain, <u>12th International Workshop on Long-Term</u> <u>Changes and Trends in the Atmosphere</u>
- 13-17, IUGG, IAGA, L'Aquila, Italy, <u>Course on Operational Space Weather Fundamentals</u>

- 19-21, IUSS, Florence, Italy, <u>Centennial Celebration and Congress of the International</u> <u>Union of Soil Sciences</u>
- 20-24, IAVCEI, Nový Jičín, Czech Republic, Volcandpark 2024
- 26-31, JpGU, Chiba, Japan, Japan Geoscience Union Meeting 2024
- 30-1 June, IUGG, CMG, IASPEI, Mumbai, India, <u>Workshop on Computational Geosciences</u> for Sustainable Development

#### June

- 2-7, IUGG, CMG, Mumbai, India, <u>34th Conference on Mathematical Geophysics:</u> <u>Mathematical Geophysics for Sustainable Development</u>
- 2-7, IUGG, IAGA, Fredericton, New Brunswick, Canada, <u>The Combined ANGWIN/VCAIS</u> <u>Meeting</u>
- 5-7, IAG, Barcelona, Spain, EUREF Symposium 2024
- 7-17, IUGG, IACS, McCarthy AK, USA, International Summer School in Glaciology
- 17-21, IUGG, IAMAS, Hangzhou, China, <u>Quadrennial International Radiation Symposium</u> 2024
- 18-20, IAVCEI, Liverpool, UK, <u>1st International Conference on Volcanic and Igneous</u> <u>Plumbin Systems (VIPS)</u>
- 23-28, AOGS, Pyeongchang, Rep. of Korea, AOGS Annual Meeting 2024
- 23-28, IUGG, IAG, SEDI, Great Barrington MA, USA, 18th Symposium of SEDI
- 24-27, IUGG, IAMAS, La Jolla CA, USA, <u>International Atmospheric Rivers Conference</u> 2024
- 24-28, IUGG, IASPEI, San José, Costa Rica, <u>4th Regional Assembly Latin American and</u> <u>Caribbean Seismological Commission</u>
- 30-6 July, IAGA, Utrecht, Netherlands, <u>18th Castle Meeting New trends on Paleo-, Rock-and Environmental Magnetism</u>

# July

- 8-12, IAMAS, Jeju, Rep. of Korea, <u>11th International Cloud Modeling Workshop (ICMW)</u> 2024
- 12-13, IUGG, IAMAS, Jeju, Rep. of Korea, <u>Workshop on Evaluation of Cloud Probe</u> <u>Processing Software</u>
- 13-14, IUGG, IAMAS, Jeju, Rep. of Korea, <u>Workshop on Scientific Directions for Cloud</u> <u>Chamber Research</u>
- 13-21, COSPAR, IUGG, Busan, Rep. of Korea, <u>45th COSPAR Scientific Assembly</u>
- 14-19, IAMAS, Jeju, Rep. of Korea, International Conference on Clouds and Precipitation
- 15-19, IUGG, IAMAS, Boulder CO, USA, <u>Quadrennial Ozone Symposium</u>
- 15-20, IUGG, IAPSO, Buenos Aires, Argentina, <u>Summer School</u>, <u>From meso to sub-</u> mesoscale ocean circulation structures: satellite and in-situ measurements, physical mechanisms and biological impact<sup>6</sup>
- 20, IAMAS, Jeju, Rep. of Korea, <u>A Short Course on Cloud Microphysics and Radar</u> <u>Observations</u>
- 24-25, IAHS, Eichstätt, Germany, <u>International Commission on Continental Erosion (ICCE)</u> <u>Symposium 2024</u>

# August

- 6-15, IAU, Cape Town, South Africa, <u>32nd IAU General Assembly</u>
- 24-30, IGU, Dublin, Ireland, <u>35th International Geographical Congress</u>
- 25-30, IAG, Strasbourg, France, 20th Geodynamics and Earth Tides Symposium
- 25-31, IUGS, Busan, Rep. of Korea, <u>37th International Geological Congress</u>

#### September

- 4-6, IAG, Thessaloniki, Greece, Gravity, Geoid and Height Systems 2024
- 7-13, IAGA, Beppu, Japan, <u>26th Electromagnetic Induction Workshop</u>
- 9-13, IAMAS, Kuala Lumpur, Malaysia, <u>16th International Commission on Atmospheric</u> <u>Chemistry and Global Pollution Symposium and 18th International Global Atmospheric</u> <u>Chemistry Science Conference</u>
- 22-27, IUGG, IASPEI, Corfu, Greece, <u>39th General Assembly of the European</u> <u>Seismological Commission</u>
- 30-4 October, IAGA, Breckenridge CO, USA, <u>11th VLF and ELF Remote Sensing of the</u> <u>Ionosphere and Magnetosphere (VERSIM) Meeting</u>

#### October

- 6-9, EMSEV, IAGA, IASPEI, IAVCEI, Chania, Greece, <u>Electromagnetic Studies of</u> <u>Earthquakes and Volcanoes</u>
- 7-11, IAG, Potsdam, Germany, GGOS Days 2024 and GGOS Focus Areas Topical Meeting
- 31-6 November, IAGA, Vassouras, Brazil, <u>XXth IAGA Workshop on Geomagnetic</u> <u>Observatory Instruments, Data Acquisition and Processing</u>
- October, IUGG, IASPEI, South Africa, 4th General Assembly of the African Seismological Commission

#### November

- 3-7, IUGG, IASPEI, Antalya, Türkiye, <u>15th General Assembly of the Asian Seismological</u> <u>Commission</u>
- 4-7, IUGG, IAHS, Florianópolis, Brazil, <u>9th International Water Resources Management</u> Conference of the International Association of Hydrological Sciences; 14th International Workshop on Statistical Hydrology of the International Association of Hydrological Sciences; and 1st Encontro Brasileiro de Hidrologia Estatística

# December

- 9-13, AGU, Washington DC, USA, AGU Fall Meeting 2024

# Association Scientific Assemblies 2025

- 29 June 4 July, IAVCEI, Geneva, Switzerland, IAVCEI Scientific Assembly 2025
- 20-25 July, IACS, IAMAS, IAPSO, Busan, Rep. of Korea, <u>IACS-IAMAS-IAPSO Joint</u> <u>Scientific Assembly 2025</u>
- 31 August 6 September, IAGA, IASPEI, Lisbon, Portugal, IAGA-IASPEI Joint Scientific Assembly 2025
- 1-5 September, IAG, Rimini, Italy, IAG Scientific Assembly 2025
- 5-10 October, IAHS, Roorkee, India, IAHS Scientific Assembly 2025

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