



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

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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 about the actions of the IUGG Secretariat, Bureau, and Executive Committee. Past issues are posted on the IUGG website (<http://www.iugg.org/publications/ejournals/>). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

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1. IUGG's Centennial Anniversary

Formed in Brussels, Belgium, on 28 July 1919, the International Union of Geodesy and Geophysics (IUGG) celebrates its 100th anniversary in 2019. The centennial year marks an important milestone for IUGG. Since its inception as a union of international scientific associations, IUGG has evolved into a prominent scientific organization promoting Earth and space sciences worldwide in the complex political, economic and scientific landscapes of the 20th and the beginning of the 21st centuries. IUGG's mission is to advance, strengthen and promote Earth and space sciences for the benefit of humanity through international research cooperation and education, and to communicate the knowledge to governments and policymakers. For the decades ahead, IUGG envisions a future Earth that is environmentally sustainable and where societies are resilient against natural hazards. We celebrate the IUGG centennial not only to remind geoscientists how important international scientific cooperation is and how IUGG science and science diplomacy have developed over the last century, but also to think collectively about future scientific developments, international scientific initiatives, and finding solutions to the urgent problems of our society, especially to those related to the 2030 UN Agenda for Sustainable Development. We are looking at the past in order to develop a new future for Earth and space sciences and to promote science for the benefit of all.

To celebrate the Centennial of the Union, IUGG established a Task Force to develop a program for celebrations around the world for 2018-2019. In 2018, several conferences/symposia and a summer school for early career scientists were held in China, Japan, Mexico, Turkey, and the USA. The program for this year includes:

- 27th IUGG General Assembly, Montreal, Canada, 8-18 July 2019;
- Celebration of the IUGG Centennial at UNESCO, Paris, France, 29 July 2019;
- Several meetings in Europe, South America, and the Middle East;
- A special volume on “The International Union of Geodesy and Geophysics: From Different Spheres to a Common Globe” will be published as a part of the peer-reviewed journal *History of Geo- and Space Sciences*.

As a part of this program, a website dedicated to the IUGG Centennial has been developed and is now open to the public. **Please visit <http://100.iugg.org/> to learn more about the history of IUGG.** We hope all visitors to the website, especially IUGG scientists from all nations and geoscientific disciplines, will enjoy this wonderful 100-year journey through space and time and appreciate the work of several generations of Earth and space scientists, who voluntarily contributed their time and efforts to the development of international cooperation in geosciences.

Michael G. Sideris, IUGG President
Alik Ismail-Zadeh, IUGG Secretary-General

2. Important deadlines for the 27th IUGG General Assembly in Montréal, Canada

Today, 1 March, is the deadline for submission of abstracts of the papers to be presented at the XXVII IUGG General Assembly in Montréal, Canada, 8-18 July 2019. Other important deadlines are:

- **Saturday, 30 March 2019**, due date for the notification of paper acceptance and decisions on grant application; and
- **Friday, 5 April 2019**, due date for early bird registration.

The 27th IUGG General Assembly will be held at the Palais des Congrès in Montréal. This is a special opportunity for participants from Canada and around the world to come together and share their science and culture. The year 2019 marks the 100th anniversary of IUGG; we will look back on the accomplishments of the previous century of Earth and space science research, and forward to the next century of scientific advancement. The scientific program includes nine Union Lectures (<http://iugg2019montreal.com/union-lecturers.html>) and a wide variety of Union, inter-Association, and Association symposia (<http://iugg2019montreal.com/iugg-program.html>).

3. Global Change and Future Earth, new volume of the IUGG Special Publications

Global Change and Future Earth: The Geoscience Perspective, part of the IUGG Special Publications, was recently published by Cambridge University Press. Edited by Tom Beer, Jianping Li and Keith Alverson, the book demonstrates how multi- and inter-disciplinary research outputs from the geoscience community can be applied to tackle the physical and societal impacts of climate change and contribute to the *Future Earth* programme co-sponsored by the International Science Council (<http://cambridge.org/9781107171596>). Please remember that as an IUGG member, you can receive 20% discount on selected Cambridge University Press books, including *Global Change and Future Earth*. To view more titles, visit <http://cambridge.org/IUGGmembers2019>.

4. Jubilee: *Helmut Moritz* 85



Helmut Moritz (born in Graz, Austria on 1 November 1933) is a distinguished physical geodesist. His work is in the fields of general geophysics, geodynamics, gravimetry, theoretical mechanics, and the theory of relativity. He graduated from the Graz University of Technology (TUG) in 1956 and obtained his doctorate degree in 1959 (TUG). Since 1955 he has held various positions at TUG, Geodetic Service of Austria, Ohio State University (USA), Technical University Hannover (Germany), and Wuhan University (China). He was Professor of Physical Geodesy at Technical University Berlin (Germany, 1964-1971), then Professor of Geodesy at the TUG Institute of Navigation (1971-2002) becoming Professor Emeritus at TUG.

Moritz was President of the International Association of Geodesy (1979-1983), IUGG Bureau Member (1983-1991), and IUGG President (1991-1995). He was elected to the Austrian Academy of Sciences and several national academies and societies including the Finnish Academy (1970), Accademia Nazionale dei Lincei (1974), Hungarian Academy of Sciences (1983), Royal Swedish Academy of Engineering Sciences (1984), Royal Spanish Academy of Sciences (1984), Academy of Sciences of the German Democratic Republic (1984, now the Leibniz Society of Sciences in Berlin), Royal Astronomical Society (1985), German National Academy of Sciences Leopoldina (1987), Polish Academy of Sciences (1988), Academia Europaea (1992), Croatian Academy of Sciences (1994), and Chinese Academy of Sciences (1998). Moritz received honorary doctorate degrees from the Technical University of Munich (1981) and Ohio State University (1992), honorary professorship of the Wuhan Technical University of Surveying and Mapping (China, 1993), and the Russian Order of Friendship (2014). Moritz is an IUGG Fellow. Congratulations to Helmut Moritz on reaching his 85th year!

5. Obituaries

Roland List (1929 - 2019)



Professor Roland List passed away on 26 January 2019. He was a distinguished cloud physicist and Secretary General (1995-2007) of the International Association of Meteorology and Atmospheric Sciences (IAMAS) of IUGG. Roland had a long and highly successful career in the atmospheric sciences and contributed to international cooperation and coordination of meteorology through his service to the IAMAS community and via the World Meteorological Organization (WMO), where he was Deputy Secretary General in the 1980s. Roland was born in Frauenfeld, Switzerland in 1929 and graduated from ETH Zurich before working for the Swiss Federal Institute for Snow and Avalanche Research in Davos.

In 1963 he moved to the University of Toronto where he established a world-leading cloud physics group that thrived under his leadership. During his time at the University of Toronto, he supervised 44 Masters and 33 PhD students, many of whom have gone on to have distinguished careers of their own in the atmospheric sciences. Roland served IUGG as a Liaison Officer to WMO and the World

Climate Research Programme. He had a long association with the IAMAS International Commission on Clouds and Precipitation, of which he was an honorary member. One of the IAMAS tasks that Roland took great pride in carrying through was offering funding and assistance for young scientists with limited funding to come to IAMAS and IUGG assemblies, building the global scientific community. He really enjoyed bringing people together and arranging times for the newly and long-graduated to mix and learn from each other.

The atmospheric sciences community lost a bright colleague, good friend and wonderful man. We extend our condolences to his family.

John Turner, IAMAS President
Michael MacCracken, IAMAS President (2003-2007)

Walter H. Munk (1917-2019)



Walter H. Munk passed away on Friday, 8 February 2019 at his home in La Jolla, California, at the age of 101. Munk was born on 19 October 1917 in Vienna, Austria-Hungary, and in 1932, his family sent him to New York for school. After spending a few years working for a banking company, Munk decided that banking was not for him and he applied to and was accepted at the California Institute of Technology. Here he received a bachelor's degree in physics in 1939 and a master's degree in geophysics in 1940. Most of his working life was spent at Scripps Institution of Oceanography, California.

Walter was one of the foremost oceanographers of the 20th century. His interests in the environment were widespread. Saying himself, "During my career I have worked on rather too many topics to have done a thorough job on any one of them". Many of us would disagree with his assessment of the impact that he made on our understanding of the oceans. A geophysicist by initial training, he pioneered work on waves, tides, acoustics, ocean circulation, mixing and internal waves to name just a few.

In 2001, during the joint IAPSO/IABO assembly in Mar del Plata, Argentina, IAPSO awarded Walter its inaugural Prince Albert I Medal. There was little doubt that Walter was one of the 'fathers of oceanography' and nobody was more deserving than him to receive the award. Many oceanographers well remember the occasion, when Munk gave a wonderful lecture entitled "The evolution of physical oceanography in the last hundred years", which not only covered the science, but also many anecdotes from his scientific career. Throughout the Assembly he was often seen exuberantly chatting away to younger scientists and more mature colleagues.

Despite his advancing years, he continued to support IAPSO and in 2015, at the age of 98, he was invited to give two talks, one on acoustics and the other on internal waves, at the IUGG/IAPSO Assembly in Prague. It is a mark of the esteem in which he was held that Walter attracted a large audience, many from the other disciplines of the IUGG family. His breadth of knowledge of colleague's work was outstanding, and we are sad that we will no longer be able to listen to his brilliant talks except through historical recordings.

Munk was elected to the U.S. National Academy of Sciences in 1956 and to the Royal Society of London in 1976. In 1983, Munk was awarded the U.S. President's National Medal of Science, and in 1999, the Kyoto Prize in Basic Sciences for his fundamental contributions to the field of oceanography. In 2018, Munk received the French Legion of Honor with the rank of Chevalier (Knight) for his exceptional contributions to oceanography.

His passing is a great loss to oceanography, but he was and will continue to be an inspiration to young and old. The IAPSO community will always remember meetings and interaction with this 'Einstein of the oceans' (a term used by the New York Times after his receipt of the Kyoto Prize); scientific discussions with Walter were always of great value. Further information about Walter is given in the obituary posted by Scripps Institution of Oceanography: <https://scripps.ucsd.edu/news/obituary-notice-walter-munk-world-renowned-oceanographer-revered-scientist>.

Denise Smythe-Wright, IAPSO President

6. 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 may list more meetings on their websites according to their disciplines.

March

- 9-15, URSI, New Delhi, India, 2019 URSI Asia-Pacific Radio Science Conference. Web: <http://aprasc2019.com/>
- 11-13, IAHS, WMO, New York City NY, USA, MOXXI 2019. Measurements and Observations in the 21st Century. Web: <https://iahs.info/Commissions--W-Groups/Working-Groups/MOXXI/Information/MOXXI-2019.do>

April

- 2-4, GEO, Amsterdam, The Netherlands, Geospatial World Forum. Web: <https://geospatialworldforum.org/>
- 3-7, PAIGH, Washington DC, USA, American Association of Geographers Annual Meeting 2019. Web: <https://annualmeeting.aag.org/AAGAnnualMeeting/Home.aspx?hkey=9c5fc57b-feba-472d-9918-f23136815c1b&WebsiteKey=5c824785-24cf-4da2-80b9-d257a3acc8af>
- 4-5, IAMAS, Cambridge, United Kingdom, 1st QuIESCENT (Quantifying the Indirect Effect: from Sources to Climate Effects of Natural and Transported aerosol in the Arctic) Workshop. Web: <https://sites.google.com/view/quiescent-arctic/workshops/1st-quiescent-workshop>
- 7-12, EGU, Vienna, Austria, European Geosciences Union General Assembly 2019. Web: <https://www.egu2019.eu/>
- 18-20, IUGG, COSPAR Mandi, India, C2E2 Himalaya 2019. International Workshop on Climate Change and Extreme Events in the Himalayan Region. Web: <http://www.c2e2himalaya.iitmandi.ac.in/>

May

- 8-12, IPCC, Kyoto, Japan, 49th Session of IPCC. Web: https://www.ipcc.ch/site/assets/uploads/2019/01/IPCCP49_Info_Participants.pdf

- 13-17, UNISDR, Geneva, Switzerland, Global Platform for Disaster Risk Reduction. Web: <https://www.unisdr.org/conference/2019/globalplatform/home>
 - 15-17, IAG, Athens, Greece, 4th Joint International Symposium on Deformation Monitoring (JISDM). Web: <http://jisdm2019.survey.ntua.gr/>
 - 20-24, IUGG, ICTP, Trieste, Italy, International Space Weather Initiative Workshop. Web: <http://indico.ictp.it/event/8682/>
 - 22-24, IAG, Tallinn, Estonia, EUREF Symposium 2019. Web: http://www.euref.eu/euref_symposia.html
 - 27 May-7 June, IUGG, ICTP, Trieste, Italy, Fifth Workshop on Water Resources in Developing Countries: Hydroclimate Modeling and Analysis Tools. Web: <http://indico.ictp.it/event/8685/>
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