



**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. 7 (1 July 2019)

This special newsletter issue provides the latest information and key dates for the 27th General Assembly of the International Union of Geodesy and Geophysics (IUGG). 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.

Contents

1. The 27th IUGG General Assembly
2. Scientific Program of the Assembly
3. Union Plenary Lectures
4. Important Events
5. Information for Council Delegates
6. Reports by the IUGG National Committees
7. Awards to be presented at the IUGG General Assembly
8. Meeting calendar

1. The 27th IUGG General Assembly

IUGG General Assemblies are held every four years and provide an opportunity for scientists from all over the world representing eight Union Associations that comprise the IUGG and official delegates of Member Countries of IUGG to come together to share their latest scientific discoveries and to determine strategies for the Union's development over the next four years. The 27th General Assembly is a very special event as it marks the centennial anniversary of the Union looking back on the accomplishments of the previous century of Earth and space science research, and forward to the next century of scientific advancement. The General Assembly will be held 8-18 July 2019 at the Palais des Congrès in Montréal, Québec, Canada. The Palais des Congrès is shown in the photo below and more information is available at the webpage <https://congresmtl.com>.

If you have not already done so, please register online for the IUGG General Assembly. Onsite registration is available, however it is more expensive. Details of the registration and fees can be found at: <http://www.iugg2019montreal.com/register.html>. When registering for the conference you can book your hotel accommodation.

Please visit the exhibitions during the General Assembly. A list of exhibitors is presented here: <http://www.iugg2019montreal.com/exhibitors-list.html>



Palais des Congrès, Montréal

2. Scientific Program of the Assembly

The Scientific Program of the 27th IUGG General Assembly will run from **Tuesday 9 July until Wednesday 17 July**. Each day will consist of four 90-minute oral sessions and poster sessions. The Wednesday, 10 July, late-afternoon session will be the Opening Ceremony followed by a reception; the Saturday, 13 July, evening session will be the Awards Ceremony; the Wednesday, 17 July, late-afternoon session will be the Closing Ceremony; and three morning sessions (11, 13, and 16 July, 10:30-12:00) will have Union Plenary Lectures.

The Scientific Program of the General Assembly includes three categories of symposia and a number of workshops on a wide range of geophysical themes. These include:

- **Union Symposia** which cover a wide range of themes of interest to all or many Associations and Union Commissions. Invited speakers feature in these Symposia, supported by poster presentations selected by the convenors from those submitted. Some of the Union Symposia are expanded or followed in greater depth in related Joint Symposia or in Association Symposia. Union symposium U02 “*Georisk Reduction: Science, Resources, and Governmental Action*” co-organized by the American Geophysical Union (AGU) and the U.S. National Committee for Geodesy and Geophysics and Union symposium U07 “*Centennial of International Cooperation in Earth and Space Science*” are dedicated to the Centennial Anniversary of the Union.
- **Joint Symposia** with invited speakers and scientists whose presentations (which consist of oral or poster presentations) have been accepted by the session convenors. The themes have been devised by at least two Associations, one of which is the lead Association. Some Joint Symposia are developed further in separate Association Symposia and Workshops.
- **Association Symposia** with invited speakers and scientists whose presentations (which consist of oral or poster presentations) have been accepted by the session convenors. The eight Associations, and the single letter code used to identify them, are:
 - C – IACS: International Association of Cryospheric Sciences
 - G – IAG: International Association of Geodesy
 - A – IAGA: International Association of Geomagnetism and Aeronomy
 - H – IAHS: International Association of Hydrological Sciences
 - M – IAMAS: International Association of Meteorology and Atmospheric Science

- P – IAPSO: International Association for the Physical Sciences of the Oceans
- S – IASPEI: International Association of Seismology and Physics of the Earth's Interior
- V – IAVCEI: International Association of Volcanology and Chemistry of the Earth's Interior

The Scientific Program is now available at: <http://www.iugg2019montreal.com/iugg-program.html>

3. Union Plenary Lectures


The scientific theme for the 27th General Assembly is ***Beyond 100: The next century in Earth and Space Science***. The IUGG President has invited nine of the world's leading scientists to present Plenary Lectures on the following topics, listed in the order of presentation:


- **Earth Sciences as the Underlying Pillars to Meet Societal Challenges in the next Century** (by *David Grimes*, Environment Canada's Meteorological Service of Canada, and the World Meteorological Organization)
- **Bridging the Science-Policy Gap to address India's Water Crisis: Insights from Cauvery Basin research** (by *Veena Srinivasan*, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore, India)
- **The Ocean's Role in Atmospheric Carbon Dioxide Changes During Ice Age Cycles** (by *Karen Kohfeld*, Simon Fraser University, Vancouver, Canada)
- **Exploring and Understanding Earth from Space: The Power of Perspective** (by *Waleed Abdalati*, Cooperative Institute for Research in Environmental Sciences (CIRES) of NOAA and the University of Colorado, Boulder, USA)
- **Improving Atmospheric Reconstructions for Historical Extreme Events by Rescuing lost Weather Observations** (by *Ed Hawkins*, National Centre for Atmospheric Science, the University of Reading, UK)
- **Hunting the Magnetic Field** (by *Lisa Tauxe*, Scripps Institution of Oceanography, University of California at San Diego, USA)
- **Geodesy Sharpens you up** (by *Kosuke Heki*, Hokkaido University, Sapporo, Japan)
- **Singing Seismograms: Harmonic Tremor Signals in Seismological Records** (by *Vera Schlindwein*, Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research in Bremerhaven, Germany)
- **Volcanic Giants - what we know, what we think we know, what we can't know about Cataclysmic Super-Eruptions** (by *Paolo Papale*, National Institute of Geophysics and Volcanology (INGV), Rome, Italy)

The abstract of the lectures and the biographies of the Union Lecturers can be viewed at <http://www.iugg2019montreal.com/union-lectures.html>

4. Important Events

Special scientific and selected business events that will take place during the General Assembly are presented here in chronological order (room number is in parentheses). Further business events have been scheduled for 8 and 18 July. The full list of business meetings can be found at: <http://iugg2019montreal.com/business-meetings.html>

Tuesday, 9 July	08:30 – 18:00	Union Symposium U01 “ <i>Achieving Sustainable Development: The Role for Earth Sciences</i> ” (Room 511)
Tuesday, 9 July	14:00 – 18:00	First session of the IUGG Council Meeting (Room 524AB; <i>by invitation only</i>)
Wednesday, 10 July	08:30 – 16:00	Union Symposium U04 “ <i>Data-driven Science for Earth and Space Exploration</i> ” (Room 511)
Wednesday, 10 July	16:00 – 18:00	Opening Ceremony (Room 517)
Wednesday, 10 July	18:00 – 20:00	Welcome Reception
Thursday, 11 July	08:30 – 10:00	Union Symposium U07 “ <i>Centennial of International Cooperation in Earth and Space Sciences</i> ” (Room 517)
Thursday, 11 July	10:30 – 12:00	<p>Union Lectures</p>  <p>10:30: “<i>Earth Sciences as the Underlying Pillars to Meet Societal Challenges in the next Century</i>”. Speaker: <i>David Grimes (Canada)</i></p> <p>11:00: “<i>Bridging the Science-Policy Gap to address India's Water Crisis: Insights from Cauvery Basin Research</i>”. Speaker: <i>Veena Srinivasan (India)</i></p> <p>11:30: “<i>The Ocean’s Role in Atmospheric Carbon Dioxide Changes During Ice Age Cycles</i>”. Speaker: <i>Karen Kohfeld (Canada)</i> (Room 511)</p>
Thursday, 11 July	13:30 – 18:00	Union Symposium U06 “ <i>Recent Advances and Discoveries in Planetary Science and Comparative Planetology</i> ” (Room 517)
Friday, 12 July	09:00 – 13:00	Second Session of the IUGG Council Meeting (Room 524AB; <i>by invitation only</i>)
Friday, 12 July	15:00 – 18:00	Hearing of the Bids for IUGG2023 (Room 524A; <i>open for Council Delegates only</i>)
Friday, 12 July	13:30 – 18:00	Union Symposium U09 “ <i>Celebrating Early Career Scientists</i> ” (Room 517)
Thursday, 13 July	08:30 – 10:00	Union Symposium U07 “ <i>Centennial of International Cooperation in Earth and Space Sciences</i> ” (Room 517)

Saturday, 13 July	10:30 – 12:00	<p>Union Lectures</p>  <p>10:30: “<i>Exploring and Understanding Earth from Space: The Power of Perspective</i>”. Speaker: <i>Waleed Abdalati (USA)</i></p> <p>11:00: “<i>Improving Atmospheric Reconstructions for Historical Extreme Events by Rescuing lost Weather Observations</i>”. Speaker: <i>Ed Hawkins (UK)</i></p> <p>11:30: “<i>Hunting the Magnetic Field</i>”. Speaker: <i>Lisa Tauxe (USA)</i> (Room 511)</p>
Friday, 13 July	13:30 – 18:00	<p>Union Symposium U09 “<i>Celebrating Early Career Scientists</i>” (Room 517)</p>
Saturday, 13 July	18:15 – 19:45	<p>Awards Ceremony (Room 511)</p>
Saturday, 13 July	20:00 – 22:00	<p>Presidential Dinner <i>(by invitation only)</i></p>
Sunday, 14 July	08:30 – 18:00	<p>Union Symposium U02 “<i>Georisk Reduction: Science, Resources, and Governmental Action</i>” (a joint event with AGU and U.S. National Committee for Geodesy and Geophysics) (Room 517)</p>
Monday, 15 July	08:30 – 12:00	<p>Union Symposium U05 “<i>New Discoveries in Earth's Deep Interior</i>” (Room 517)</p>
Monday, 15 July	13:30 – 18:00	<p>Union Symposium U08 “<i>Earth and Space Observations</i>” (Room 517)</p>
Tuesday, 16 July	08:30 – 10:00	<p>Union Symposium U07 “<i>Centennial of International Cooperation in Earth and Space Sciences</i>” (Room 517)</p>

Tuesday, 16 July	10:30 – 12:00	<p>Union Lectures</p>  <p>10:30: “<i>Geodesy Sharpens you up</i>”. Speaker: <i>Kosuke Heki (Japan)</i> 11:00: “<i>Singing Seismograms: Harmonic Tremor Signals in Seismological Records</i>”. Speaker: <i>Vera Schlindwein (Germany)</i> 11:30: “<i>Volcanic Giants - What we know, what we think we know, what we can’t know about Cataclysmic Super-Eruptions</i>”. Speaker: <i>Paolo Papale (Italy)</i> (Room 511)</p>
Tuesday, 16 July	14:00 – 18:00	Third Session of the IUGG Council Meeting (Room 524AB; <i>by invitation only</i>)
Wednesday, 17 July	08:30 – 12:00	Union Symposium U03 “ <i>Mathematics of Planet Earth: The Science of Data</i> ” (Room 517)
Wednesday, 17 July	14:00 – 15:00	<p>Gold Medal Lecture</p>  <p>“<i>Global Glacial Isostasy and the Dansgaard-Oeschger Oscillation of Glacial Climate</i>” Medalist: <i>W. Richard Peltier (Canada)</i> (Room 517)</p>
Wednesday, 17 July	16:30 – 18:00	Closing Ceremony (Room 517)

5. Information for Council Delegates

The IUGG Council Meeting will be held on **9 July** (1st Session), **12 July** (2nd Session), and **16 July** (3rd Session) in **Room 524AB**. Attendance is restricted to accredited Delegates and invited guests. Council Delegates should ensure that their Adhering Body has sent the original letter of accreditation to the IUGG Secretariat and issued credentials for delegates to the Association Plenaries. Delegates should carry a copy of the accreditation letter, when they attend the Council meeting. Of the 72 members of IUGG, there are 13 Associates, 11 Observers, and 48 countries with dues paid that are therefore eligible to vote. If dues are received from an Observer country prior to the General Assembly, the relevant National Delegate will be able to vote. As of today, delegates from 43 members will attend the Council meeting, including 2 Associate Members who will attend as Listeners of the Council.

Important votes to be taken at the third session of the Council Meeting (16 July) include (i) approval of the Budget for 2020-2023, (ii) election of officers, and (iii) selection of the venue of the 2023 General Assembly. Delegates unable to attend a specific Council session may arrange with the Secretary General to submit a ballot in advance.

Selection of the venue of the 28th IUGG General Assembly in 2023. Invitations were received to hold the 28th IUGG General Assembly in Athens, *Greece*, Berlin, *Germany*, Geneva, *Switzerland*, and Guadalajara, *Mexico*. The IUGG Site Comparison Committee prepared a comprehensive report based on the evaluations of the four bids. The report will be presented at the first session of the Council. Four bids will be presented at the Bids Hearing by the bidders; the Site Comparison Committee will shortlist finalists (two countries), and the Council Delegates at the third session of the Council meeting will vote for the venue of the next General Assembly.

6. Reports by the IUGG National Committees

Several IUGG National Committees have published Quadrennial Reports on their activities from 2015 to 2019. The reports from Argentina, Canada, Croatia, Greece, and Serbia are now available <http://www.iugg.org/members/nationalreports/>.

7. Awards to be presented at the IUGG General Assembly

IUGG Awards

Gold Medal

Name	Last Name	Country
William Richard	Peltier	CANADA

Fellows (Honorary Members)

Elected Fellows

Name	Last Name	Country
Anny	Cazenave	FRANCE
Sierd	Cloetingh	NETHERLANDS

Shuanggen	Jin	CHINA
Barbara	Romanowicz	USA
Saroosh	Sorooshian	USA
Philip	Woodworth	UK
Jun	Xia	CHINA

Conferred Fellows

Name	Last Name	Country
Nasser	Abou-Assour	EGYPT
Isabelle	Ansorge	SOUTH AFRICA
Tom	Beer	AUSTRALIA
Ray	Cas	AUSTRALIA
Athena	Coustenis	FRANCE
Donald	Dingwell	GERMANY/CANADA
Hermann	Drewes	GERMANY
Charles	Fierz	SWITZERLAND
Domenico	Giardini	SWITZERLAND
Harsh	Gupta	INDIA
Zoltan	Hajnal	CANADA
Pierre	Hubert	FRANCE
Alik	Ismail-Zadeh	GERMANY/RUSSIA
Jan	Krynski	POLAND
Thorne	Lay	USA
Andrew	Mackintosh	AUSTRALIA
Joan	Marti	SPAIN
Eugene	Morozov	RUSSIA
Teruyuki	Nakajima	JAPAN
David	Rhoades	NEW ZEALAND
Johan	Rodhe	SWEDEN
Kenji	Satake	JAPAN
Hubert	Savenije	NETHERLANDS
Denise	Smythe-Wright	UK
Peter	Suhadolc	ITALY
John	Turner	UK
Hans	Volkert	GERMANY

Early Career Scientist Awardees

Name	Last Name	Country
Juan Carlos	Afonso	AUSTRALIA
Amir	Agha Kouchak	USA
Emilie	Capron	DENMARK/UK
Ira	Didenkulova	RUSSIA
Marie	Dumont	FRANCE
Binbin	Ni	CHINA
Katrin	Schröder	ITALY
Flavia	Tauro	ITALY
Takeshi	Tsuji	JAPAN
Qiuzhen	Yin	BELGIUM

Association Awards

IACS Awardees

2019 Early Career Scientist Award

Name	Last Name	Country
Doug	Brinkerhoff	USA
Denis	Felikson	USA

IAG Awardees

2019 Levallois Medal

Name	Last Name	Country
Christoph	Reigber	GERMANY

2019 Guy Bomford Prize

Name	Last Name	Country
Michal	Sprlak	AUSTRALIA

2017 Young Authors' Award

Name	Last Name	Country
Minghui	Xu	CHINA

2018 Young Authors' Award

Name	Last Name	Country
Athina	Peidou	CANADA

IAGA Awardees

2019 Shen Kuo Award for Interdisciplinary Achievements

Name	Last Name	Country
Catherine	Johnson	CANADA

2019 Long Service Medal

Name	Last Name	Country
Martin	Berg	NORWAY

2019 Young Scientist Awards

Name	Last Name	Country
Tomasz	Gonet	UK
Deepak	Kumar Karan	INDIA
Evgenii	Shirokov	RUSSIA
Kseniia	Tlatova	RUSSIA

IAHS Awardees

2019 Tison Award

Name	Last Name	Country
Sandra	Pool	SWITZERLAND
Marc	Vis	SWITZERLAND

IAMAS Awardees

2019 Early Career Scientist Medal

Name	Last Name	Country
Lei	Bi	CHINA

IAPSO Awardees

2019 Prince Albert I Medal

Name	Last Name	Country
Corinne	Le Quéré	UK

2019 Early Career Scientist medal in physical ocean science

Name	Last Name	Country
Gerard	McCarthy	IRELAND

2019 Early Career Scientist medal in chemical ocean science

Name	Last Name	Country
Mar	Benavides	FRANCE

IASPEI Awardees

2019 Medal

Name	Last Name	Country
Brian L. N.	Kennett	AUSTRALIA

IAVCEI Awardees

2019 Wager Medal

Name	Last Name	Country
Madeleine	Humphreys	UK

2019 Walker Price

Name	Last Name	Country
Fabian	Wadsworth	UK
Damien	Gaudin	GERMANY

8. 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.

July

- 8-18, IUGG, Montreal, Canada, 27th IUGG General Assembly. Web: <http://iugg2019montreal.com/>

- 7-9, UN-GGIM, New York City NY, USA, Ninth Session of the United Nations Committee of Experts on Global Geospatial Information Management. Web: <http://ggim.un.org/meetings/GGIM-committee/9th-Session>
- 19-23, IUGG, ICTP, WCRP, Sao Paulo, Brazil, Advanced School on American Monsoons - Progress and Future Plans. Web: <http://indico.ictp.it/event/8713>
- 15-20, ICA, Tokyo, Japan, 29th International Cartographic Conference and 18th General Assembly. Web: <http://www.icc2019.org/>
- 25-31, INQUA, Dublin, Ireland, 20th Congress of the International Union for Quaternary Research. Web: <http://www.inqua2019.org/>
- 28 - August 2, AOGS, Singapore, 16th Annual Meeting of the Asia Oceania Geosciences Society. Web: <http://www.asiaoceania.org/aogs2019/public.asp?page=home.htm>
- 29, IUGG, UNESCO, Paris, France, Centennial International Cooperation in Earth and Space Sciences/ Web: http://100.iugg.org/events/unesco_program_draft.pdf

August

- 2-6, IPCC, Geneva, Switzerland, 50th Session of IPCC. Web: <https://www.ipcc.ch/calendar/>
- 26-29, AGU, San Diego CA, USA, Chapman Conference on Understanding Carbon Climate Feedbacks. Web: <https://connect.agu.org/aguchapmanconference/upcoming-chapmans/carbon-climate>
- 28-30, IAMAS, Rovereto, Italy, First TEAMx (Multi-scale transport and exchange processes in the atmosphere over mountains – programme and experiment) Workshop. Web: <http://www.teamx-programme.org/first-workshop>

September

- 1-6, IAHS, Birmingham, United Kingdom, 10th Annual Catchment Science Summer School. Web: <https://www.birmingham.ac.uk/research/activity/water-sciences/summer-school/index.aspx>
- 2-14, IUGG, ICTP, Trieste, Italy, Advanced Workshop on Earthquake Fault Mechanics. Web: <http://indico.ictp.it/event/8715/>
- 9-12, IAHS, Liege, Belgium, 10th International Groundwater Quality Conference. Web: <http://aimontefiore.org/GQ2019/>
- 9-13, YES, GFZ, IUGS, Berlin, Germany, 5th International YES Congress 2019 "Rocking Earth's Future". Web: <https://yesdeutschland.weebly.com/yes-congress-2019.html>
- 16-20, IAG, IUGG, Buenos Aires, Argentina, Workshop on the Implementation of the Global Geodetic Reference Frame (GGRF) in Latin America. Web: <http://www.sirgas.org/en/ggrf/>
- 17-21, IPCC, Monaco, 51st Session of IPCC. Web: <https://www.ipcc.ch/calendar/>
- 18-20, IAG, ISPRS, Munich, Germany, MRSS19 - Munich Remote Sensing Symposium 2019. Web: <http://www.pf.bgu.tum.de/isprs/mrss19/index.html>
- 23-25, SCOR, Toyama, Japan, 2019 SCOR Annual Meeting. Web: <https://scor-int.org/events/scor-annual-meeting-2019/>

IUGG Electronic Journal Volume 19 Number 7 (1 July 2019)

Editors: Tom Beer, Alik Ismail-Zadeh (Editor-in-Chief), Franz Kuglitsch (Associate Editor), and Kathryn Whaler.

To ensure compliance of the IUGG Electronic Journal with the General Data Protection Regulation, individuals who would prefer not to receive the IUGG Electronic Journal should send an email to the IUGG Secretariat (secretariat@iugg.org) with a word “unsubscribe” in the Subject line.