



IUGG



**International Association
of Geodesy**

Newsletter

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The *IAG Newsletter* is under the editorial responsibility of the *Communication and Outreach Branch* (COB) of the IAG.

It is an open forum and contributors are welcome to send material (preferably in electronic form) to the IAG COB (newsletter@iag-aig.org). These contributions should complement information sent by IAG officials or by IAG symposia organizers (reports and announcements). The *IAG Newsletter* is published monthly. It is available in different formats from the IAG new internet site: <http://www.iag-aig.org>

Each *IAG Newsletter* includes several of the following topics:

- I. news from the Bureau Members
- II. general information
- III. reports of IAG symposia
- IV. reports by commissions, special commissions or study groups
- V. symposia announcements
- VI. book reviews
- VII. fast bibliography

Meeting Announcements

Meetings Calendar

IAG Sponsored Meetings

IAU XXXth General Assembly

August 20-31, 2018, Vienna, Austria

URL: <http://astronomy2018.univie.ac.at/>

19th General Assembly of WEGENER

September 10-13, 2018, Grenoble, France

URL: <https://wegener2018.sciencesconf.org>

GGHS2018

September 17-21, 2018, Copenhagen, Denmark

“Gravity, Geoid and Height Systems 2” Symposium, 2nd joint meeting of the International Gravity Field Service and Commission 2 of the IAG

URL: <http://www.space.dtu.dk/gghs2018>

International DORIS Service (IDS) Workshop

September 24-29, 2018, Ponta Delgada, Azores

URL: <https://iag.dgfi.tum.de/en/meetings-calendar/>

GGOS Days 2018

October 2-4, 2018, Tsukuba, Japan

URL: <http://176.28.21.212/en/meetings/2018/ggos-days/general/>

SIRGAS Symposium 2018

October 9-12, 2018, Aguascalientes, Mexico

URL: <http://geoweb2.inegi.org.mx/sirgas2018/html/en/index.html>

SIRGAS Workshop on Vertical Reference System

October 15-17, 2018, Aguascalientes, Mexico

URL: <http://geoweb2.inegi.org.mx/sirgas2018/html/en/index.html>

IGS 2018 Workshop

October 29 – November 2, 2018, Wuhan, China

URL: <https://iag.dgfi.tum.de/en/meetings-calendar/>

International Workshop on GNSS Ionosphere (IWGI2018)

November 4-6, 2018, Shanghai, China

URL: <http://202.127.29.4/geodesy/iwgi2018/>

21st International Workshop on Laser Ranging

November 5-9, 2018, Canberra, Australia

URL: <http://www.iwlr2018.serc.org.au/>

4th Joint International Symposium on Deformation Monitoring (JISDM)

May 15 – 17, 2019, Athens, Greece

URL: <http://jisdm2019.survey.ntua.gr/>

27th IUGG General Assembly

July 8 – 17, 2019, Montreal, Canada

URL: <http://www.iugg.org/assemblies/>

IAG Related Meetings

IX International Symposium "Metrology of Time and Space"

September 12-14, 2018, Mendeleevo, Russia

URL: <http://www.vniiftri.ru/index.php/en/news/conferences/741-sym9>

ION GNSS+ 2018

September 24-28, 2018, Miami, Florida, USA

URL: <https://www.ion.org/gnss/>

EVN Symposium and Users' Meeting

October 8-11, 2018, Granada, Spain

URL: <http://evnsymp2018.iaa.es/>

AGU 2018 Fall Meeting

December 10-14, 2018, Washington, D.C., USA

URL: <https://meetings.agu.org/>

EGU General Assembly 2019

April 7-12, 2019, Vienna, Austria

URL: <http://www.egu2019.eu/>

AOGS 16th Annual Meeting

July 28 – August 2, 2019, Singapore, Singapore

URL: http://www.asiaoceania.org/society/public.asp?view=up_coming

Reports

IX Hotine-Marussi Symposium on Mathematical Geodesy

18-22 June 2018, Rome, Italy

A series of Hotine-Marussi symposia on Mathematical Geodesy represents a main venue for theoretically oriented geodesists. The tradition of these symposia started in 1959 with the first Symposium on Mathematical Geodesy organized by Antonio Marussi in Venice, Italy. The first symposia were strongly influenced by Martine Hotine. After his death in 1968, they were called after him. After Marussi's death in 1984, the series was finally renamed to the Hotine-Marussi symposia. Since 2006 the Inter-Commission Committee on Theory (ICCT) of IAG is responsible for their organization.

The IX Hotine-Marussi Symposium on Mathematical Geodesy was held from 18 to 22 June 2018. The symposium took place at the Faculty of Civil and Industrial Engineering of the Sapienza University of Rome, Italy, in the ancient Chiostrò of the Basilica of S. Pietro in Vincoli.

The symposium was attended by 119 participants from 30 countries who contributed 120 papers (83 oral presentations and 37 posters). The scientific program of the symposium was organized in 10 sessions that were mainly modelled thematically after the ICCT study group topics and mostly convened by their chairs:

- I. Geodetic methods in Earth system science (N. Sneeuw)
- II. Theory of multi-GNSS parameter estimation (A. Khodabandeh, M. Crespi)
- III. Digital terrain modelling (R. Barzaghi)
- IV. Space weather and atmospheric modelling (K. Börger, M. Schmidt)
- V. Global gravity field modelling and heights systems (D. Tsoulis, S. Claessens)
- VI. Theory of modern geodetic reference frames and Earth's rotation (Z. Altamimi)
- VII. Deformation and gravity field modelling at regional scales (J. Huang, Y. Tanaka)
- VIII. Estimation theory and inverse problems in geodesy (A. Dermanis)
- IX. Advanced numerical methods in geodesy (R. Čunderlík)
- X. Multi-sensor and time series data analysis (W. Kosek, K. Sosnica)

Additionally, a special session at the Accademia dei Lincei (the oldest scientific academy in the world, established in 1603 by Federico Cesi) was held on 19 June 2018. Its program consisted of 6 invited talks focused on interactions of geodesy and

- oceanography (M. H. Rio)
- glaciology (O. Francis, T. van Dam)
- atmosphere (R. Pacione, J. Douša)
- mathematics (W. Freeden, F. Sansò)
- solid Earth system structure from space (R. Haagmans)
- seismology (A. Peresan, M. Crespi, A. Mazzoni, G. Panza)

The special session was organized by Fernando Sansò, Emeritus at the Politecnico di Milano, member of the Accademia dei Lincei and long-term driving force behind the Hotine-Marussi symposia series.

The scientific program of the symposium was complemented with a social program including a night tour of the Vatican Museum and the Sistine Chapel.

The IX Hotine-Marussi Symposium was successful also due to the effort and organization skills of the local organizing committee chaired by Mattia Crespi (Rome), the vice-president of ICCT. The Hotine-Marussi symposium has been hosted by the Sapienza University of Rome already for the third time in a row with Mattia chairing the local organizing committee in all three cases.

For more information on the IX Hotine-Marussi Symposium, please visit the following website: <https://sites.google.com/uniroma1.it/hotinemarussi2018>.



Participants of the IX Hotine-Marussi Symposium, 18-22 June 2018, in the Chiostro of the Basilica of S. Pietro in Vincoli, Rome, Italy.

PAVEL NOVÁK
President of the IAG Inter-Commission Committee on Theory
<http://icct.kma.zcu.cz>

Report on the Eighth Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) held at the United Nations Headquarters in New York from 1 – 3 August 2018

UN-GGIM seeks to promote international cooperation in the field of global geospatial information management, and as the relevant body on geospatial information management in the United Nations, to report on all matters relating to geography, geospatial information and related topics such as the Global Geodetic Reference Frame (GGRF).

This annual meeting of national representatives and senior executives from Member States' national geospatial information authorities, and geospatial information experts continued to enhance the collaboration, coordination and coherence in global geospatial information management. Led by Member States, the Committee of Experts aims to address global challenges regarding the application of geospatial information, including in the development agendas, and global policymaking in the field of geospatial information management. In this context geodesy plays a major role through its Global Geodetic Reference Frame (GGRF) and IAG is participating as an observer in all meetings and related activities of UN-GGIM. This year, a **Road Map for the Global Geodetic Reference Frame for Sustainable Development Implementation Plan** presented by the UN-GGIM Subcommittee on Geodesy was discussed at the UN-GGIM session. IAG was represented by its President Harald Schuh and Michael Pearlman, Chair of the GGOS Bureau of Networks and Observations (BNO). The Intervention that was made by IAG reads as follows:

IAG Delegation Intervention for the GGRF Agenda Item - 2018

The International Association of Geodesy commends the work done by the UN GGIM Subcommittee on Geodesy, and emphasizes that the Roadmap Implementation Plan is an important building block to determining a sustainable Global Geodetic Reference Frame.

Together with its geodetic services, IAG encourages modernization of geodetic infrastructure, as well as development of Core Observatories, especially in developing regions.

IAG notes that there is a clear need for strengthened intergovernmental mechanisms in support of global geodesy, and notes with appreciation the Subcommittee on Geodesy's efforts to provide this through a **Convention or other possible governance mechanisms mentioned in the Position Paper on Governance.**

IAG encourages the establishment of funding mechanisms for global geodesy, in order to support geodetic infrastructure and education in developing Member States. IAG further notes that such funding will provide a means to strengthen the GGRF overall, as well as help realize the geodetic contributions to the UN Sustainable Development Goals and Sendai Framework for Disaster Risk Reduction.

The full report on GGRF brought to the attention of UN-GGIM prepared by the Subcommittee on Geodesy can be downloaded at <http://ggim.un.org/meetings/GGIM-committee/8th-Session/documents/E-C.20-2018-6%20Global-geodetic-reference-frame-report.pdf>.



At the 8th UN-GGIM Session in New York (photos: Harald Schuh)

The formal Committee session was accompanied by a lively and busy programme of side events during the whole week of 30 July to 3 August 2018.

HARALD SCHUH
IAG President