



Contents

General Announcements	3
ILRS Journal of Geodesy Special Issue	3
IGFS updated website and services representation.....	3
International Digital Elevation Model Service (IDEMS)	5
10th International Campaign of Comparison of Absolute Gravimeters ICAG-2017	6
Meeting Announcements	6
COSPAR 2017.....	6
COSPAR 2018.....	7
Meetings Calendar	8
IDS Workshop.....	8
SAR Altimetry Workshop.....	8
OSTST 2016.....	8
SIRGAS Symposium 2016	8
SIRGAS School on Vertical Reference Systems.....	8
Gaia Data Workshop.....	8
IGNSS 2016	8
7th Gaia Science Alerts Workshop 2016	8
AGU 2016 Fall Meeting	8
10 th Coastal Altimetry Workshop	8
Munich Satellite Navigation Summit	8
Fourth SWARM Science Meeting and Geodetic Missions Workshop.....	8
North-American CryoSat Science Meeting and Geodetic Missions Workshop.....	9
EGU General Assembly 2017	9
IAU Symposium 330	9
Ninth IVS Technical Operations Workshop	9
ENC 2017	9
23rd Working Meeting of the European VLBI Group for Geodesy and Astrometry (EVGA)	9
EUREF 2017 Symposium	9
FIG Working Week 2017	9
TransNav 2017	9
ICC 2017	9
IGS Workshop 2017	9
IAG/GGOS/IERS Unified Analysis Workshop (UAW)	9
IAG and IASPEI Joint Scientific Assembly.....	9
AOGS 14 th Annual Meeting.....	9
Workshop on Glacial Isostatic Adjustment and Elastic Deformation	10
COSPAR 2017	10
AGU 2017 Fall Meeting	10
EGU General Assembly 2018	10
AOGS 15 th Annual Meeting.....	10
10 th IVS General Meeting.....	10
42nd COSPAR Scientific Assembly.....	10
IAU XXXth General Assembly	10
21 st International Workshop on Laser Ranging.....	10
AGU 2018 Fall Meeting	10
EGU General Assembly 2019	10
27th IUGG General Assembly	10
AOGS 16 th Annual Meeting.....	10
Reports	11
Gravity Geoid and Height Systems 2016 – GGHS2016.....	11
Chinese Annual Geodetic General Assembly (CAGGA) 2016 held in Nanjing, China.....	15

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

General Announcements

ILRS Journal of Geodesy Special Issue

Dear Colleagues,

The International Laser Ranging Service (ILRS) is organizing the collection of papers dealing with the topics of interest to ILRS, for publication in a Special Issue (SI) of the Journal of Geodesy (JoG). There is already great interest in such an effort from the members of the ILRS. It would be however of great value if colleagues from different research areas also contributed works that either make use of ILRS data and products or deal with their application of Laser Ranging (LR). This will be only the second Special Issue dedicated to laser ranging since the establishment of the ILRS in late 1998. We are soliciting high quality papers that will cover the main application areas of LR, the organization of the ILRS, the engineering aspects, the operations, the support of missions by LR, various aspects of LR data analysis, research and scientific products relying on LR, and future prospects.

The scope of the contributed papers should cover scientific analyses and research investigations using all types of measurements carried out for Earth and planetary science and related disciplines, as well as aspects of modeling of the data acquired by LR and interpretation of the obtained results. It is our hope that the SI will provide a forum to document the level of interdisciplinary research being carried out with ILRS-collected observations and derived products.

If you wish to contribute a paper to the Special Issue on Laser Ranging, please submit a tentative title, a list of authors, and a short abstract of your proposed contribution to the guest editors **by January 31, 2017**. The authors of the accepted manuscripts will receive a notification **by February 15, 2017** with instructions on how to submit their full manuscript to JoG through the Editorial Manager (<http://www.editorialmanager.com/joge>) **until May 31, 2017**, for peer-review. It should be emphasized that the contributions will go through the same critical review process as any other JoG paper. Papers should be focused on special topics and duplications of the main issues have to be avoided. The final decision of publication remains, as always, with the Editor-in-Chief of JoG.

Yours sincerely

Erricos C. Pavlis (epavlis@umbc.edu)
Cinzia Luceri (cinzia.luceri@e-geos.it)
Guest Editors to Journal of Geodesy

IGFS updated website and services representation

With the International Gravity Field Service (IGFS) Central Bureau (CB) being hosted at the Department of Geodesy and Surveying (DGS) of the Aristotle University of Thessaloniki (AUTH) since April 2016, an effort was put forth in order to update its presence in the web and make the IGFS data and products more visible to the interested scientific and user community. To that respect, a first webpage has been created presenting mostly administrative information for IGFS and its services (see Figure 1) in order to guarantee its presence online.

Given the need to promote the work carried out by IGFS Services and Centers, a new updated webpage has been recently created focusing more on the data and products availability, so that interested users can acquire them directly from the available portals (see Figure 2). In the new webpage layout, the availability of gravity, geoid, GEM, DEM, SG and tide data through the IGFS services portal is more visible, while a news section has been created as well to direct to IGFS related conferences, updates, etc.

Finally, two mailing lists are currently under development and will be uploaded soon.

igfs-products@lists.auth.gr the scope of this list is to provide updated information on the new data and products that become available from the IGFS Services. New data and products such as GEMs, DEMs, gravity, geoid, SG, tide, etc. will be posted and shared to all list members. Subscription to the list is free. The list can be accessed at <https://lists.auth.gr/sympa/info/igfs-products>

igfs-standards@lists.auth.gr the scope of this list is to provide a forum for idea exchange within the IGFS CB, AB and IAG Commission 2 SC, towards the introduction of new and the update of old IGFS conventions and standards. The *igfs-standards* mailing list is open to all, but pending approval of the IGFS CB, given the more administrative nature of the list. The list can be accessed at <https://lists.auth.gr/sympa/info/igfs-standards>

IGFS is happy to acknowledge the hosting and operation of the International Digital Elevation Model Service (IDEMS) by the Environmental Systems Research Institute (Esri) (<http://www.esri.com>) under the lead of Mr. Kevin M Kelly (Director) and Dr. Jianbin Duan (Deputy Director). The new IDEMS website can be accessed at <https://idems.maps.arcgis.com/home/index.html>.

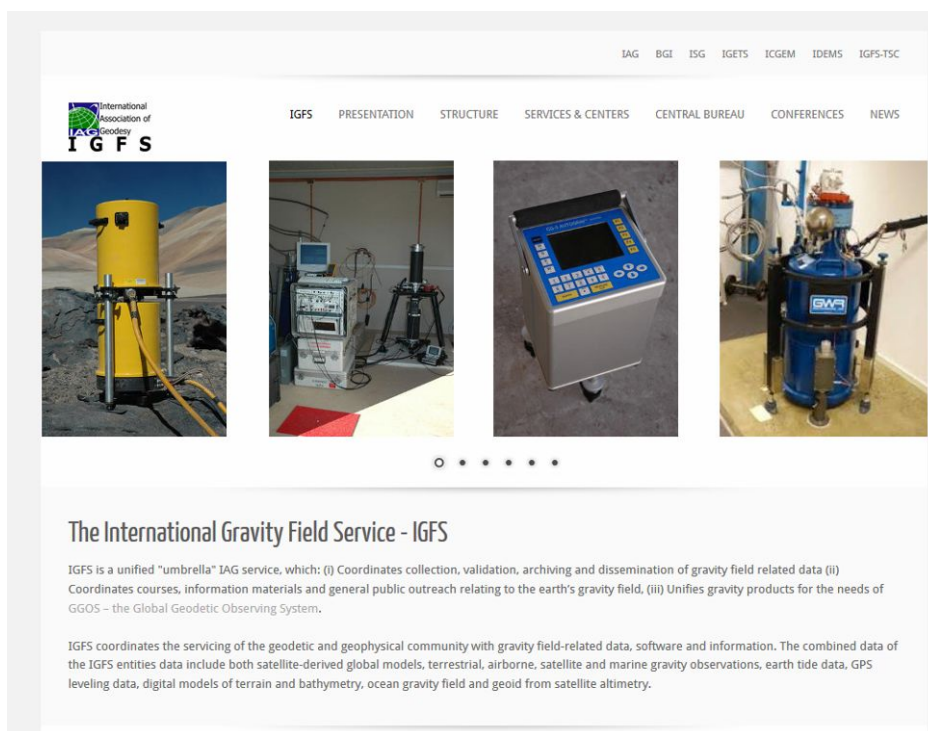
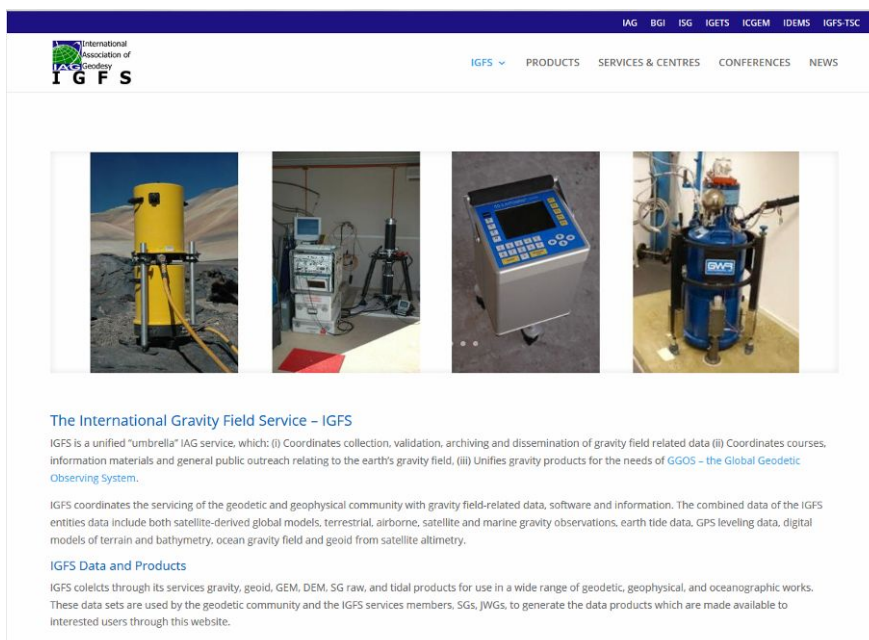


Figure 1: The first update of the IGFS webpage online since April 2016.



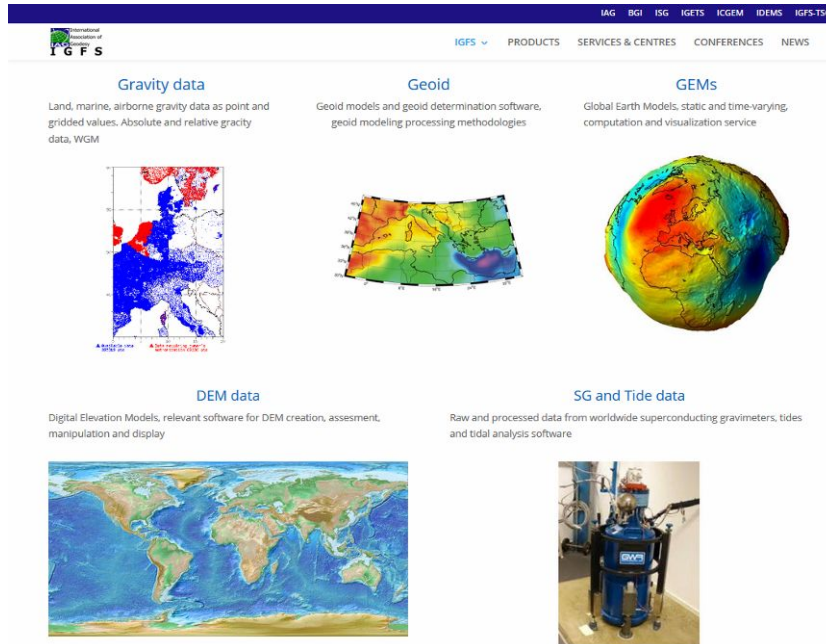


Figure 2: The recently updated IGFS webpage, online since October 2016.

Thessaloniki, Greece
 October 2016
 GEORGIOS S. VERGOS
 IGFS CB Director.



A newly developed International Digital Elevation Model Service (IDEMS) is now available under the umbrella of the International Gravity Field Service (IGFS) of the International Association of Geodesy (IAG). IDEMS provides a focus for distribution of data and information about various digital elevation models, including spherical-harmonic models of Earth's global topography and lunar and planetary DEM. Related datasets, such as representation of Inland Water within Digital Elevation Models, and relevant software which are available in the public domain are also provided. IDEMS will provide the following DEM related products:

1. Compilation, tutorial-style provision and maintenance of information on global gridded DEMs;
2. Compilation of available national elevation data sets with information on data resolution, methods used for DEM generation and links to providers;
3. Generation and dissemination of spherical-harmonic models of Earth's global topography and bathymetry;
4. Compilation of geodesy-relevant DEM-studies;
5. Extension of the focus from Earth to Moon and terrestrial planets through compilation of information on available planetary topography models.

IDEMS is hosted and operated by Environmental Systems Research Institute (Esri) (<http://www.esri.com/>) under the lead of Mr Kevin M Kelly (Director) and Dr Jianbin Duan (Deputy Director). The new IDEMS website is available at: <https://idems.maps.arcgis.com/home/index.html>.

IDEMS offers two main digital elevation data services managed and maintained by Esri: Terrain and TopoBathy. These services provide online access to a global collection of multi-resolution and multi-source elevation and bathymetry data, including metadata and source information. This DEM data collection includes the best publicly available data and community contributed data with resolutions ranging from 1000 meters to 3

meters. The IDEMS terrain and bathymetry data are updated periodically as new datasets become available. Many other DEM data, not directly hosted by Esri, are also available on IDEMS.

Access to IDEMS will not require Esri software. However, for users with Esri software – which includes many academic institutions globally – a number of pre-defined, common terrain data analysis tools become available such as data aggregation, interpolation, density, buffering, flow analysis, and more.

IDEMS encourages contributions to the site from the geodetic community in any of the five product types listed above. Please contact the IDEMS Director or Deputy Director if you would like to contribute or recommend content you think appropriate for IDEMS.

KEVIN M. KELLY (kevin_kelly@esri.com)
Director IDEMS
Environmental Systems Research Institute (Esri)

JIANBIN DUAN (jDuan@esri.com)
Deputy Director IDEMS
Environmental Systems Research Institute (Esri)

10th International Campaign of Comparison of Absolute Gravimeters ICAG-2017

The International Comparisons of Absolute Gravimeters (ICAG) had been jointly organized by the CCM (Consultative Committee for Mass and Related Quantities) and the IAG every four years since 1980.

The next and 10th ICAG (ICAG-2017) will be organized by NIM, (National Institute of Metrology, Beijing, China) at its Changping Campus in the suburbs of Beijing, on 16-31 October 2017. This is the first time in the history that an ICAG will be held out of Europe.

ICAG-2017 will be organized as the CCM "Key Comparison and Pilot Study". Up to now, there are 16 institutes from six countries in Asia, nine in Europe and one in America having registered to participate in the ICAG-2017; equipment will include the commercial absolute gravimeters, the home made traditional free fall and rise-fall gravimeters, several latest developed atomic absolute gravimeters, as that of NIM.

During the ICAG-2017, a joint workshop on absolute gravimetry and the Watt Balance is programmed.

It is a good opportunity for Metrology and Earth science communities to work and cooperate together. It is also a challenge towards a new era of absolute gravimetry instrumentation and its applications.

Welcome to China !

WU Shuqing
Organizer of the ICAG-2017 (wushq@nim.ac.cn)

Information transmitted by Felicitas Arias,
Director of BIPM Time Department (farias@bipm.org)

Meeting Announcements

COSPAR 2017

3rd Symposium of the Committee on Space Research (COSPAR): Small Satellites for Space Research

18 - 22 September 2017, Jeju Island, South Korea

Contact:

COSPAR Secretariat, 2 place Maurice Quentin, 75039 Paris Cedex 01, France

Tel: +33 1 44 76 75 10

Fax: +33 1 44 76 74 37

cospar@cosparhq.cnes.fr

<http://cospar.kasi.re.kr/cospar-symposium-2017/>

Host Organizations: Korea Astronomy and Space Science Inst. (KASI) / Korean Space Science Society

Scientific Program Chair: Dr. Dong-Hun Lee, Kyung Hee Univ.

Abstract Deadline: 31 March 2017

Topics:

- New ideas for upper atmosphere research with micro- and nano-satellites
- Interaction of solar wind and Earth's bow shock: recent progress in observations and modelling
- Dynamics of the magnetospheric process through coordinated experiment and modelling
- Advances in astrophysical research with small satellites
- Planetary exploration of the solar system
- Enabling technologies

Selected papers published in *Advances in Space Research* and *Life Sciences in Space Research*, fully refereed journals with no deadlines open to all submissions in relevant fields.

A. JANOFSKY

COSPAR 2018

42nd Scientific Assembly of the Committee on Space Research (COSPAR) and Associated Events

14 - 22 July 2018, Pasadena, CA, USA

Contact:

COSPAR Secretariat, 2 place Maurice Quentin, 75039 Paris Cedex 01, France

Tel: +33 1 44 76 75 10

Fax: +33 1 44 76 74 37

cospar@cosparhq.cnes.fr

<http://www.cospar-assembly.org>

Host Organization: Caltech, home of JPL

Scientific Program Chair: Prof. Thomas Prince, California Institute of Technology

Abstract Deadline: 9 February 2018

Topics:

Approximately 125 meetings covering the fields of COSPAR Scientific Commissions (SC) and Panels:

- SC A: The Earth's Surface, Meteorology and Climate
- SC B: The Earth-Moon System, Planets, and Small Bodies of the Solar System
- SC C: The Upper Atmospheres of the Earth and Planets Including Reference Atmospheres
- SC D: Space Plasmas in the Solar System, Including Planetary Magnetospheres
- SC E: Research in Astrophysics from Space
- SC F: Life Sciences as Related to Space
- SC G: Materials Sciences in Space
- SC H: Fundamental Physics in Space
- Panel on Satellite Dynamics (PSD)
- Panel on Scientific Ballooning (PSB)
- Panel on Potentially Environmentally Detrimental Activities in Space (PEDAS)
- Panel on Radiation Belt Environment Modelling (PRBEM)
- Panel on Space Weather (PSW)
- Panel on Planetary Protection (PPP)
- Panel on Capacity Building (PCB)
- Panel on Education (PE)
- Panel on Exploration (PEX)
- Panel on Interstellar Research (PIR)
- Special events: interdisciplinary lectures, round table, etc.

Selected papers published in Advances in Space Research and Life Sciences in Space Research, fully refereed journals with no deadlines open to all submissions in relevant fields.

A. JANOFKY

Meetings Calendar

IDS Workshop

October 31 – November 1, 2016, La Rochelle, France

URL: <http://ids-doris.org/meetings/ids-meetings.html>

SAR Altimetry Workshop

October 31 2016, La Rochelle, France

URL: <http://www.aviso.altimetry.fr/en/news/events-calendar.html>

OSTST 2016

November 1 – 4, 2016, La Rochelle, France

URL: <http://ids-doris.org/meetings/ids-meetings.html>

SIRGAS Symposium 2016

November 16 – 18, 2016, Quito, Ecuador

URL: <http://www.igm.gob.ec/sirgas/>

SIRGAS School on Vertical Reference Systems

November 21 – 25, 2016, Quito, Ecuador

URL: <http://www.igm.gob.ec/sirgas/>

Gaia Data Workshop

November 21 – 24, 2016, Heidelberg, Germany

URL: <http://mintaka.ari.uni-heidelberg.de/gaia-workshop-2016/>

IGNSS 2016

December 6 - 8, 2016, Sydney, Australia

International Global Navigation Satellite Systems 2016 Conference

URL: <http://www.ignss2016.unsw.edu.au>

7th Gaia Science Alerts Workshop 2016

December 7 - 9, 2016, Utrecht, The Netherlands

International Global Navigation Satellite Systems 2016 Conference

URL: <https://www.ast.cam.ac.uk/ia/wikis/gsaawgwiki/index.php/Workshop2016:main>

AGU 2016 Fall Meeting

December 12 – 16, 2016, San Francisco, California, USA

URL: <http://meetings.agu.org/upcoming-meetings/>

10th Coastal Altimetry Workshop

February 21-24 , 2017, Florence, Italy

URL: <http://www.coastalaltimetry.org/>

Munich Satellite Navigation Summit

March 14-16 , 2017, Munich, Germany

URL: <http://www.munich-satellite-navigation-summit.org/>

Fourth SWARM Science Meeting and Geodetic Missions Workshop

March 20-24 , 2017, Banff, Alberta, Canada

URL: <http://www.swarm2017.org/>

North-American CryoSat Science Meeting and Geodetic Missions Workshop

March 20-24 , 2017, Banff, Alberta, Canada

URL: <http://www.cryosat2017.org/>

EGU General Assembly 2017

April 23-28 , 2017, Vienna, Austria

URL: <http://www.egu2017.eu/>

IAU Symposium 330

April 24-28 , 2017, Nice, France

URL: <http://iaus330.sciencesconf.org/>

Ninth IVS Technical Operations Workshop

April 30 – May 4 , 2017, Westford, MA, USA

URL: <https://www.iers.org/ IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

ENC 2017

May 9-17 , 2017, Lausanne, Switzerland

URL: <http://www.enc2017.eu/>

23rd Working Meeting of the European VLBI Group for Geodesy and Astrometry (EVGA)

May 15-19 , 2017, Gothenburg, Sweden

URL: <http://iag.dgfi.tum.de/index.php?id=291>

EUREF 2017 Symposium

May 15 – 19, 2017, Wroclaw, Poland

URL: http://www.euref.eu/euref_symposia.html

FIG Working Week 2017

May 29 – June 2, 2017, Helsinki, Finland

URL: <http://www.fig.net/fig2017/>

TransNav 2017

June 21 – 23, 2017, Gdynia, Poland

URL: <http://transnav2017.am.gdynia.pl>

ICC 2017

July 2 – 7, 2017, Washington, DC, USA

URL: <http://icc2017.org/>

IGS Workshop 2017

July 3 – 7, 2017, Paris, France

URL: <http://kb.igs.org/hc/en-us/articles/216574478-IGS-Workshop-2017>

IAG/GGOS/IERS Unified Analysis Workshop (UAW)

July 10 – 12, 2017, Paris, France

URL: <https://www.iers.org/ IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

IAG and IASPEI Joint Scientific Assembly

July 30 – August 4, 2017, Kobe, Japan

URL: <http://iag.dgfi.tum.de/index.php?id=291>

AOGS 14th Annual Meeting

August 6-11, 2017, Singapore, Singapore

URL: <http://www.asiaoceania.org/aogs2017/>

Workshop on Glacial Isostatic Adjustment and Elastic Deformation

September 5-7, 2017, Reykjavik, Iceland

URL: <http://www.polar.dtu.dk/english/Workshop-on-Glacial-isostatic-adjustment-and-elastic-deformation-2017>

COSPAR 2017

September 18-22, 2017, Jeju Island, South Korea

3rd Symposium of the Committee on Space Research (COSPAR): Small Satellites for Space Research

URL: <http://cospar.kasi.re.kr/cospar-symposium-2017/>

AGU 2017 Fall Meeting

December 11-15, 2017, New Orleans, LA, USA

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

EGU General Assembly 2018

April 8-13, 2018, Vienna, Austria

URL: <http://www.egu2018.eu/>

AOGS 15th Annual Meeting

June 3-8, 2018, Hawaii, USA

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

10th IVS General Meeting

June 3-8, 2018, Longyearbyen, Spitsbergen, Norway

URL: <http://www.iers.org/IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

42nd COSPAR Scientific Assembly

July 14-22, 2018, Pasadena, CA, USA

URL: <https://www.cospar-assembly.org/>

IAU XXXth General Assembly

August 20-31, 2018, Vienna, Austria

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

21st International Workshop on Laser Ranging

October 27-31, 2018, Canberra, Australia

URL: <http://www.iers.org/IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

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/>

27th IUGG General Assembly

July 8 – 17, 2019, Montreal, Canada

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

AOGS 16th Annual Meeting

July 28 – August 2, 2019, Singapore, Singapore

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

Reports

Gravity Geoid and Height Systems 2016 – GGHS2016

1st Joint Symposium of IAG Commission 2 and IGFS, co-organized by GGOS Focus Area 1



The [GGHS2016 “Gravity, Geoid and Height Systems 2016”](#) Meeting was the first Joint Commission2 and IGFS Symposium co-organized with GGOS Focus Area 1 “Unified Height System”. It took place in Thessaloniki, Greece between September 19-23, 2016 at the premises of the Aristotle University of Thessaloniki (Main Ceremony Hall of the Aristotle University of Thessaloniki). Its main focus was on methods for observing, estimating and interpreting the Earth gravity field as well as its applications.

GGHS2016 continued the long history of IAG’s Commission 2 Symposia, GGG2000 (Banff, Canada), GG2002 (Thessaloniki, Greece), GGSM2004 (Porto, Portugal), GGEO2008 (Chania, Greece), GGHS2012 (Venice, Italy), with those of IGFS, 1st IGFS Meeting 2006 (Istanbul Turkey), 2nd IGFS Meeting 2010 (Fairbanks, Alaska, USA), 3rd IGFS Meeting 2014 (Shanghai, China) under a unified umbrella, the latter being decided during the XXVI IUGG General Assembly in Prague.

GGHS2016 was composed by 6 sessions spanning the entire 5 days of the program. During all days, the first three sessions were devoted to oral presentations, followed by short-oral presentations of the posters during the last oral slot. (This new format showed very positive resonance from the majority of participants.) Every day, the poster session followed the oral presentations and was organized between 6 p.m. and 8 p.m.

For GGHS2016, 211 abstracts have been received, out of which 94 have been scheduled as oral presentations and 117 as posters. 204 participants from 36 countries participated in the conference. It should be particularly emphasized that this symposium was able to attract also the young generation of scientists, since 35% of the total number of participants were either MSc Students or PhD candidates.



Distribution of GGHS2016 participants



A focused view of the distribution of GGHS2016 participants over Europe

The scientific program of GGHS2016 was of outstanding quality and showed significant scientific advancements in several fields of gravity field research, which are briefly summarized in the following:

- Session 1: Current and future satellite gravity missions
(Chairs: Thomas Gruber and David Wiese)
 - For the satellite gravity mission GRACE continued improvements in data processing are still being achieved (better backgrounds models, Level 1 and Level 2 data processing). This generates steadily increasing interest in using GRACE products for societally-relevant decision making, such as drought/flood forecasting.
 - Therefore, the community is continuing to push for continuity and improved future gravity missions after GRACE-FO. Simulation efforts are being carried out to optimize such a mission in terms of data processing (reducing aliasing errors), instrument requirements, etc.

- The continued assessment of GOCE data is leading to improved understanding of the measurement time series and influential environmental parameters.
- Session 2: Global gravity Field Modelling
(Chairs: Nikolaos Pavlis and Shuanggen Jin)
 - New modelling developments regarding high-resolution global gravity models (XGM2016, EGM2020) indicate significant improvement in accuracy. Component models of topography and isostasy are valuable tools for data reduction and geophysical interpretation.
 - Major advances have been achieved in computational methods, such as high-resolution modelling and solving large systems, and 2D Fourier series representation.
 - New and future data products (e.g., Antarctic polar cap, high-resolution marine gravity field) have become available, and innovative observation concepts based on relativity and quantum optics have been developed.
- Session 3: Local/regional geoid determination methods and models
(Chairs: Urs Marti and Hussein Abd-Elmotaal)
 - An improvement of the least squares collocation (LSC) technique with better inverse stability and covariance function sampling and representation, and also an iterative approach to better estimate covariances by a feedback approach, have been presented.
 - Major improvements of the analytical continuation technique of the gravity field have been made, aiming to stabilize the solution by smoothing the topography and take the effect of such smoothing as a forward modeling.
 - Also, an iterative approach for solving the fixed BVP has been adopted, aiming to reduce the memory requirement and needed CPU time.
 - Further improvements have been achieved in the activities of the IAG sub-commissions on gravity and geoid, e.g., in Europe and Africa.
- Session 4: Absolute and Relative gravity: observations and methods
(Chairs: Leonid Vituskin and Jakob Flury)
 - Several highlights of innovative observations technologies have been presented, such as measurement results from test campaigns with a new French transportable quantum gravimeter.
 - Very good and robust results from strap-down airborne gravimetry with a German system, flown side by side with a traditional Lacoste-Romberg sensor, could be achieved.
 - Interesting absolute gravimetry campaigns from New Zealand and Saudi Arabia were undertaken.
- Session 5: Height systems and vertical datum unification
(Chairs: Michael Sideris and Laura Sanchez)
 - Important considerations for the realization of the International Height Reference System (IHRIS), especially, determination of potential values, time-dependent changes, consistency with the geometric coordinates, have been made.
 - Innovative approaches to determine gravity potential values with precise clocks have been proposed.
 - Strategies for the combination of different geodetic data (GNSS/levelling, gravity, GGMs, tide gauge registrations, MDT) for the vertical datum unification have been presented.
- Session 6: Satellite altimetry and climate-relevant processes
(Chairs: Ole Andersen and Annette Eicker)
 - It could be demonstrated, that altimetry improves in precision due to new sensors and new geodetic missions, advancing our understanding particularly in coastal and arctic regions.
 - Together with GOCE it brings new knowledge to oceanography.

- New insights and refined understanding of mass transport processes on various timescales have been gained, and
- advances in post-processing and optimum filter and leakage correction techniques for GRACE and future gravity missions have been made.

In addition to the scientific part, GGHS2016 has also hosted a number of splinter meetings, where vibrant exchange of ideas took place. The following splinter meetings have been organized:

- IAG Commission 2 Steering Committee meeting
- IGFS meeting
- JWG 0.1: Strategy for the Realization of the International Height Reference System (IHR)
- GGOS Committee on Satellite Missions
- GGOS Committee on Establishment of the Global Geodetic Reference frame
- SC 2.1: Gravimetry and Gravity Networks
- SC 2.2: Methodology for geoid and height determination
- SC 2.3: Satellite Gravity Missions
- JSG 0.11: Multi-resolutional aspects of potential field theory
- GEOMEDII Project Meeting

All abstracts accepted and presented at the GGHS2016 conference (either oral or poster) may be submitted [as papers for publication](#) in the official peer-reviewed [IAG Symposia Series](#) at Springer Publisher. Manuscripts for possible publication in the proceedings have to be submitted for peer-review through the [IAG Symposia Editorial Manager system](#). Specific [instructions for authors](#) for the preparation of the manuscripts are supplied in the Springer IAG Symposia web-page along with [LaTeX macros](#) and a [Word Template](#). **Deadline for submission is December 26, 2016.**

LOC

- George S. Vergos (Chair of the LOC)
- Vassilios N. Grigoriadis
- Christopher Kotsakis
- Dimitrios A. Natsopoulos
- Dimitrios Tsoulis
- Ilias N. Tziavos

Scientific Committee

- Roland Pail (President Comm. 2)
- Riccardo Barzaghi (President IGFS)
- Shuanggen Jin (Vice President Comm. 2)
- Laura Sanchez (Chair GGOS Focus Area 1 JWG 0.1.1)
- Leonid Vitushkin (Chair SC2.1)
- Jonas Agren (Chair SC 2.2)
- Adrian Jäggi (Chair SC 2.3)
- Maria Cristina Pacino (Chair SC 2.4)
- Xiaoli Deng (Chair SC 2.5)
- Jürgen Kusche (Chair SC 2.6)
- Pavel Novak (President ICCT)
- Sylvain Bonvalot (Director BGI)
- Franz Barthelmes (Director ICGEM)
- Mirko Reguzzoni (Director ISG)
- Jean-Pierre Barriot (Director ICET)



Photo of the GGHS2016 participants in the Aristotle University of Thessaloniki Main Ceremony Hall

GEORGIOS S. VERGOS
(on behalf of the LOC)

ROLAND PAIL
IAG Commission2 President

RICCARDO BARZAGHI
IGFS President

Chinese Annual Geodetic General Assembly (CAGGA) 2016 held in Nanjing, China

The Chinese Annual Geodetic General Assembly 2016 was successfully held on September 23-25, 2016 in Nanjing, China. This year's assembly was jointly organized by the CSSMG (Geodesy and Navigation Committee of the Chinese Society for Surveying, Mapping and Geoinformation) and the CNC-IAG (Chinese National Committee for International Association of Geodesy).

Over 350 delegates including nearly 150 students from universities and institutes all over the country gathered in the historical and cultural city of Nanjing to attend this conference full of scientific inspirations.

The general assembly is composed of the following four parallel sessions: (1) precise GNSS measurement and reference frame; (2) GNSS/Beidou navigation and application; (3) gravity observation and height datum unification; (4) geodetic data processing and earth disaster monitoring. 3 keynote speeches and 127 contributions out of more than 200 submissions were presented, which reflected the latest development and progress in the fields of GNSS navigation and positioning, gravity field and geoid modeling, and earth dynamics in the past year.



Participants of the Chinese Annual Geodetic General Assembly 2016

DANG YAMIN