



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

## **The IUGG Electronic Journal**

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This informal newsletter is intended to keep IUGG Member National Committees informed about the activities of the IUGG Associations, and actions of the IUGG Secretariat. Past issues are posted on the IUGG website (<http://www.iugg.org/publications/ejournals/>). Please forward this message to those who will benefit from the information. Your comments are welcome.

### **Contents**

1. Report on the IAGA Scientific Assembly
2. Report on the Workshop “Mathematics of Climate Change, Related Hazards and Risks”
3. Report on the VALID Booklet Launch
4. News from the International Council for Science (ICSU)
5. IUGG support for scientific meetings to be held in 2014
6. IUGG-related meetings occurring during October – December

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### **1. Report on the IAGA Scientific Assembly**

The IAGA 2013 Scientific Assembly was held from 26 to 30 August 2013 in Mérida, Mexico, under the motto “*Living on a magnetic planet*”. The meeting was attended by 459 participants from 43 countries; 871 papers (609 oral and 262 posters) were presented in 51 sessions organized by the five IAGA Divisions and the two Interdivision Commissions. An Opening Ceremony was held on 24 August followed by the first IAGA Award Ceremony. Jean-Louis Le Mouél (France) was awarded the new *Shen Kuo Medal* for interdisciplinary achievements. Evgeny Kharin (Russia) and Michel Menvielle (France) received the *IAGA Long Service Medal*, and four early career scientists Henrique Aveiro (USA), Laura Holt (USA), Cristina Garcia-Lasanta (Spain), and Ilya Kuzichev (Russia) received the *IAGA Young Scientist Awards*. During the assembly, two remarkable keynote lectures were delivered by Cathy Constable “A survey of geomagnetic field variations over the past 10 thousand years: evolutionary trends from the dipole to the South Atlantic Magnetic Anomaly”, and by Eigil Friis-Christensen “The three-satellite geomagnetic field mission, Swarm”. Two evening lectures about archeo-astronomy of the ancient Maya calendar and the surprising astronomical knowledge of Mayan were presented by Mexican scientists, José Franco-López and Jesús Galindo-Trejo.

A week before the assembly, the first IAGA Summer School took place, also in Mérida, with the participation of 21 students and 8 renowned teachers. During the assembly, a workshop of high school teachers was organized bringing together 40 teachers from the Yucatan peninsula. They received an introduction to different topics in geomagnetism and later constructed simple instruments, which may be easily made and used at their schools. Delegates enjoyed local food and culture at the Opening Ceremony, and at the conference dinner, held at a hacienda in the city outskirts, one of many in the area that was converted to sisal production in the 19<sup>th</sup> century, a major

export from the region. Pre- and post-meeting excursions were organized to some of the spectacular Mayan archaeological sites nearby, like Uxmal, Chichen Itza, and Dzibichaltun, as well as to natural sink holes sacred sites (Cenotes), and to the ecological reserve Celestun. The meeting enjoyed the very comfortable, safe and therefore relaxed environment of Mérida and the charm and kindness of the local people, with excellent conference facilities making easier good scientific and social interactions. The IAGA EC members and the National Delegates warmly thanked the LOC and particularly its chair, Harald Böhnel, for the organization.



*Award & Opening Ceremony (left) and poster session (right). Photos: H. Böhnel.*

Received from Mioara Manda, IAGA Secretary General

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## **2. Report on the Workshop “Mathematics of Climate Change, Related Hazards and Risks”**

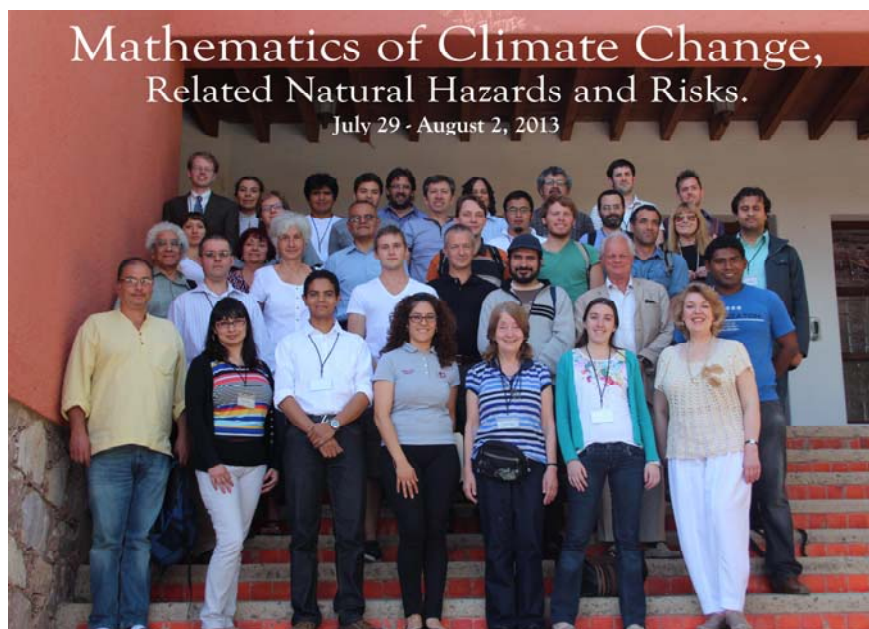
The educational and capacity-building workshop, a joint initiative of the International Mathematical Union (IMU), International Union of Theoretical and Applied Mechanics (IUTAM) and IUGG took place in Centro de Investigación Matemáticas (CIMAT) in Guanajuato (Mexico) from 29 July to 2 August 2013. The workshop was sponsored by the International Council for Science (ICSU), CIMAT, IMU, IUGG IUTAM, and the International Council for Industrial and Applied Mathematics (ICIAM). It was supported by the U.S. National Academy of Sciences, the Academia Mexicana Ciencias, the ICSU Regional Office of Latin America and the Caribbean (ROLAC), and two International Scientific Program Committees: Integrated Research on Disaster Risk (IRDR) and World Climate Research Program (WCRP).

The members of the Scientific Committee were Susan Friedlander (University of Southern California/IMU), Paul Linden (University of Cambridge/IUTAM) and Ilya Zaliapin (University of Nevada, Reno/IUGG). Together with Christiane Rousseau (University of Montreal/IMU), they also formed the Organizing Committee. The workshop was attended by 39 participants (28 regular participants, 8 invited speakers, and 3 organizers). The targeted participants were from Latin America and some of the participants came from elsewhere in the world. There were 17 participants from Latin America, 8 from the United States, two from Israel and one from Germany. In addition, several local CIMAT scientists attended the workshop on a regular basis. The participants had different backgrounds that ranged from mathematics to physics, geophysics, statistics and engineering.

The scientific program consisted of eight mini-courses of three hours, each given by a thematic specialist, as well as a poster session, poster presentation and two round tables. The three themes covered by the lectures were (i) methodology of the climate and natural hazards research; (ii)

climate change and environmental hazards; and (iii) socio-economic implications of climate change and extreme hydro-meteorological hazards.

Most lecturers stayed on site for the whole workshop and interacted with the participants. The lecturers were G. Canzani (Argentina), M. Ghil (France), O. V. Fuentes (Mexico), E. Kalnay, R. Mechoso, G. Philander, B. Rajaratnam, E. Tziperman (all USA), and C. Rousseau (Canada). Nine posters by the participants were presented during the workshop duration and they were all of exceptional quality. Three students were asked to present their poster in front of the group.



*Workshop participants (photo: Norma Cortés)*

It is the opinion of the organizers that such a workshop is very useful, and really fills a need inside the scientific community. This is particularly true for the scientists from Latin Americas and the Caribbean, as well as other developing regions, whose direct contact with the field leaders in regular meetings is limited due to monetary and logistic issues. At the final round table, most of the participants said that they learnt a lot and that the workshop achieved the goal of being educational and capacity building, since it allowed them to make contacts to field leaders as well as to get familiar with the current research trends and challenges. The rigor of the lecturers was appreciated, as well as the fact that the lecturers were conscious of the weaknesses of the models. To them, the lecturers behave ethically, by not presenting science as a religion and pointing out the weak points and the areas where more work or better models are needed. The workshop lectures have been recorded by a professional company, will be posted on YouTube, and will be made accessible from the websites of CIMAT, MPE, and IMU. The organizers enthusiastically suggest exploring a possibility of holding a follow-up workshop.

Received from Christiane Rousseau (Organizing Committee)

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### **3. Report on the VALID Booklet Launch**

On 3 September 2013, the ICSU GeoUnions, JBGIS and UNOOSA/UN-SPIDER presented a new report which shows the economic, humanitarian and organizational benefits of applying



geoinformation to disaster management. The report “The Value of Geo-Information for Disaster and Risk Management (VALID): Benefit Analysis and Stakeholder Assessment” was edited by O. Altan and a team of Editors (R. Backhaus, P. Boccardo, F. G. Tonolo, J. Trinder, N. van Manen, and S. Zlatanova). The publication aims to raise awareness and to help setting priorities in research and development.

The VALID report is built on a success of the previous publication “Geoinformation for Disaster and Risk Management – Examples and Best Practices” by to the Joint Board of Geospatial Information Societies (JBGIS) and UNOOSA/UN-SPIDER, which compiled case studies providing information on what can be done with geoinformation in support of disaster and risk management – methods, systems, applications, and experiences. It analyzed cases and offered an expert stakeholder assessment.



*The launch of the VALID booklet (photos: O. Altan)*

The launch event at the Vienna International Centre was a big success. Speakers at the presentation included M. Othman, Director of the United Nations Office for Outer Space Affairs (UNOOSA) and Deputy Director-General of the United Nations Office in Vienna (UNOV); O. Altan, the First Vice President of the International Society for Photogrammetry and Remote Sensing (ISPRS); G. Gartner, President of the International Cartographic Association and representative of JBGIS; A. Ismail-Zadeh, the IUGG Secretary-General and a representative of the Joint Board of ICSU GeoUnions; R. Backhaus and L. St-Pierre of the United Nations Platform for Space based Information for Disaster Management and Emergency Response (UN-SPIDER). The Valid booklet can be downloaded from <https://app.box.com/s/ch80uodlfz29tzn11f9q> (a full 30 MB version) or from <http://www.un-spider.org/sites/default/files/VALIDPublication.pdf> (9 MB version).

Received from Orhan Altan, Editor of the Valid Booklet

#### 4. News from the International Council for Science (ICSU)

ICSU released its Annual Report for 2012, detailing the activities of the Council for the past year in three focus areas – International Research Collaboration, Science for Policy, and Universality of Science. Highlights of 2012 included the “Planet under Pressure” conference in London; the U.N. Rio+20 summit in Rio de Janeiro and the related ICSU Forum on Science, Technology and Innovation for Sustainable Development; and the launch of Future Earth. “In 2012, ICSU broke new ground in a number of areas, pushing boundaries both in the scope and ambition of its work. Future Earth, the new research initiative on global sustainability, was launched in overflowing halls from London to Brazil. Building on a genuine sense of enthusiasm at these events, a series of regional consultations were held in Africa, Asia-Pacific and Latin America to mobilize scientists and stakeholders in these regions. We have come a long way with this ambitious project”, mentioned Y. T. Lee, ICSU President. “In June 2012, ICSU completed a two-year engagement with Rio+20. Building on the success of the Planet Under Pressure conference in engaging a whole new community outside the traditional scientific audience, ICSU and its partners positioned themselves as the leading voice for international science at the Forum on Science, Technology and Innovation for Sustainable Development in Rio de Janeiro, the week before Rio+20. Our efforts resulted in considerable media coverage and a series of promising new relationships with civil society, business and policymakers. Throughout, ICSU worked hard to highlight the value of science for sustainable development.” The report is available at: <http://www.icsu.org/publications/annual-reports/annual-report-2012/annual-report-2012-pdf> (Source: ICSU web-site)

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#### 5. IUGG support for scientific meetings to be held in 2014

IUGG calls for applications to support scientific meetings in 2014. The number of co-sponsored meetings ranges from 10 to 15 (ceiling of US\$3,000 is imposed on all applications). Please note that not all meeting proposals worthy of support can be awarded IUGG sponsorship. The program of IUGG support for scientific meetings (e.g. workshops, advanced schools, symposia) is one of the important means by which the Union and its Associations pursue the goal of promoting geophysics and geodesy through international collaboration. The IUGG Executive Committee places great emphasis on maintaining high scientific standards, coverage of a balanced spectrum of topics, and an appropriately broad and international flavor for the scientific program of the meetings. In that respect, the ICSU rules on non-discrimination in the access of qualified scientists from all parts of the world to any IUGG-sponsored meeting apply.

The Guidelines for Application to IUGG support of scientific meetings can be found at the web page: <http://www.iugg.org/meetings/guidelines.php>. The Association Secretaries General should communicate their recommendation for selection to the IUGG Secretary General as soon as possible after receiving the requests from organizers of scientific meetings, but not later than **31 October 2013**. The decision on the IUGG support will be communicated to the Association Secretaries General by the IUGG Secretary General in a letter of award as soon as possible but not later than 1 December 2013. The IUGG support should be acknowledged in all documents related to a sponsored meeting (e.g. in the scientific program, at the web-page, brochures, publications of proceedings etc.)

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## 6. IUGG-related meetings occurring during October – December

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>). Specific information about these meetings can be found there. Individual Associations also list more meetings on their websites according to their disciplines.

### *October*

- 7-11, IAG, Loja, Ecuador, 11<sup>th</sup> International School of the Geoid Service: Heights and Height Datum. Web: <http://www.11iges.utpl.edu.ec/>
- 14-17, IAG, Columbus, Ohio, USA, Asia-Pacific Space Geodynamics Symposium. Web: <http://geodeticsscience.org/apsg2013>
- 17-19, IAHS, EGU, Kos, Greece, Facets of Uncertainty - 5th EGU Leonardo Conference, Hydrofractals'13, Statistical Hydrology – Stahy'13. Web: <http://kos2013.org/>
- 21-23, IAG/IAGA/IASPEI, Panama City, Panama, School on Reference Systems, Crustal Deformation and Ionosphere Modelling. Web: <http://www.sirgas.org/index.php?id=233>
- 22-25, IAG, Istanbul, Turkey, International Symposium on Global Navigation Satellite Systems 2013. Web: <http://www.isgnss2013.org/>.
- 24-26, IAG, Panama City, Panama, SIRGAS Meeting 2013. Web: <http://www.sirgas.org/index.php?id=193&L=2>

### *November*

- 11-15, IAG, Fujiyoshida, Japan, 18th International Workshop on Laser Ranging. Web: <http://geo.science.hit-u.ac.jp/lw18/>
- 12-15, IRDR, Sanya, China, Scientific Committee and IRDR-China meetings.
- 16-18, GeoUnions, Antalya, Turkey, Joint Board Meeting of the ICSU GeoUnions.
- 18-20, IUGG/WMO, Geneva, Switzerland, 2<sup>nd</sup> IUGG-WMO workshop on ash dispersal forecast and civil aviation. Web: <http://www.unige.ch/sciences/terre/mineral/CERG/Workshop2.html>.
- 27-29, IAHS, Kathmandu, Nepal, International Conference on Climate Change, Water and Disaster in Mountainous Areas. Web: <http://www.soham.org.np/news/international-sem-2013.pdf>

### *December*

- 9-13, AGU, San Francisco, USA, Fall Meeting of the American Geophysical Union. Web: <http://fallmeeting.agu.org/2013/>

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**Note: Contributions to IUGG E-Journal are welcome from members of the IUGG family. Please send your contributions to Alik Ismail-Zadeh by e-mail (insert in Subject line: *contribution to E-Journal*). The contributions will be reviewed and may be shortened.**