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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

Books for review are the responsibility of:

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General Announcements

The Best Paper Award for Young Authors



SHFAQAT ABBAS KHAN

Shfaqat Abbas Khan won IAG 2005 Best Paper Award for young authors for the paper:
Shallow water loading tides in Japan from superconducting gravity. *Journal of Geodesy*, Vol. 78, pp. 245-250, 2004.

Shfaqat Abbas Khan was born in northern Pakistan near the small town called Kharian, in December 1972. When he was about 5 years old, he moved to Denmark with his parent and two older brothers. After he graduated with a master degree from the university of Copenhagen, he joined the geodetic department at the National Survey and Cadastre in Denmark. Here, he started to study surface loading effects on gravity and GPS measurements caused by ocean tides.

In September 2001 he started on a Ph.D. thesis entitled 'Surface deformations analyzed using GPS time series'. During his Ph.D. thesis, he visited Dr. Hans-Georg Scherneck several times. As a result they wrote the paper 'The M2 ocean tide loading wave in Alaska: vertical and horizontal displacements, modelled and observed' which was published in *Journal of Geodesy* in 2003. During his Ph.D. thesis, he focus on glacial isostatic adjustments (GIA), especially GIA in Greenland. In 2004, he visited Prof. John Wahr at the University of Colorado (USA). Shfaqat Abbas Khan received his Ph.D. degree in April 1, 2005, and is now employed as a research scientist at the Danish National Space Center.



THE IAG CEREMONY

IAG CENTRAL BUREAU

Geodesy Position at the University of Calgary



Assistant/Associate Professor in Geodesy

The *Department of Geomatics Engineering*, in the Schulich School of Engineering at the University of Calgary, invites applications for the position of Assistant or Associate Professor (tenure track) in Geodesy, effective July 1, 2006. Applicants at the Assistant Professor level should have at least two years of post-doctoral, industrial, or equivalent experience to be considered. A PhD in science or engineering is required.

Demonstrated expertise in geodesy is required. Research expertise in one or more of the following areas is desirable: satellite geodesy, satellite altimetry, airborne and space borne gravimetry and gradiometry, satellite oceanography, reference frames, geodynamics, potential field modeling,

geodetic applications of InSAR, and advanced estimation and optimization methods. The position is expected to interface with all related disciplines of geomatics engineering and will conduct both teaching and research in geodesy and related areas. The applicant is expected to develop a strong research program and should be capable of attracting external funding for these research activities and graduate student support. The selected candidate must also have the capability and the flexibility to teach undergraduate fundamental engineering courses and is expected to register as a Professional Engineer or Geoscientist in the Province of Alberta.

The Department of Geomatics Engineering is actively involved in all aspects of geomatics engineering and comprises 19 faculty members, some 90 graduate students and 50 students in each year of the undergraduate program. State-of-the-art geomatics engineering equipment and computer facilities are available. Related information can be found at <http://www.geomatics.ucalgary.ca/>

The University of Calgary is a co-educational, non-denominational, government supported institution with a student population of about 27,000. The City of Calgary itself has a population of over one million and is situated within an hour's drive of Banff National Park, one of the most beautiful parts of the Rocky Mountains.

Applications should include a detailed curriculum vitae and a complete list of publications. Three letters of reference should be mailed directly to:

Head, Department of Geomatics Engineering, Schulich School of Engineering
University of Calgary
2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada
E-mail: minch@ucalgary.ca

Closing date: **December 15, 2005**

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

The University of Calgary respects, appreciates and encourages diversity.

To see all University of Calgary academic positions, please visit www.ucalgary.ca/hr/career.

Meeting Announcements

Call for Contributions: 2nd Announcement of VI Hotine-Marussi Symposium of Theoretical and Computational Geodesy:

Challenge and Role of Modern Geodesy, Wuhan University, 29 May - 2 June 2006.

The symposium will focus on the following five topics:

- Satellite gravity missions: open theoretical problems and their future application;
- Earth-environmental, disaster monitoring and prevention by Geodetic methods;
- GNSS: Mathematical theory, engineering applications, reference system definition and monitoring;
- Deterministic and Random fields analysis with application to BVP, approximation theory and inverse problems; and
- Statistical estimation and prediction theory, quality improvement and data fusion.

The Symposium consists of the following 9 sessions:

Session 1: Time-Variable Gravity and Geodynamics

Conveners: Ben Chao, NASA Goddard Space Flight Center, USA;
Detlef Wolf, GeoForschungsZentrum Potsdam, Germany

Session 2: Theoretical Developments in Spaceborne Gravimetry

Conveners: Nico Sneeuw, Stuttgart University, Germany
Chenway Hwang, National Chiao Tung University

Session 3: Integrated deformation measurement and geophysical interpretations

Conveners: Jeffrey T. Freymueller, University of Alaska, USA
Kosuke Heki, Hokkaido University, Japan

Session 4: Earth environmental and natural hazards monitoring and mitigation using modern geodetic methods

Conveners: C.K. Shum, The Ohio State University, USA
Youichi Fukuda, Kyoto University, Japan

Session 5: GNSS: Mathematical theory, algorithms and engineering applications

Conveners: Peter Teunissen, Delft University of Technology, The Netherlands
Athanasios Dermanis, The Aristotle University of Thessaloniki, Greece

Session 6: Reference system: Definition and Monitoring

Conveners: Hermann Drewes, Deutsches Geodaetisches Forschungsinstitut, Germany
Zuheir Altamimi, Institut Geographique National, France

Session 7: Deterministic and Random fields analysis with application to BVP, approximation theory

Conveners: Bernhard Heck, Karlsruhe University, Germany
Petr Holota, Res. Inst. Geod., Topogr. & Cartogr., Czech Republic

Session 8: Inverse problems in geodesy: theory, global optimization, and applications

Conveners: Juergen, Kusche, Delft University of Technology, The Netherlands
Burkhard Schaffrin, The Ohio State University, USA

Session 9: Statistical estimation and prediction theory, quality improvement and data fusion

Conveners: Yongqi Chen, Hongkong Polytechnic University, PR China
Hansjörg Kutterer, Hannover University, Germany

All scientists are welcome to attend the VI Hotine-Marussi International Symposium of Theoretical and Computational Geodesy: Challenge and Role of Modern Geodesy. To give (oral or poster) presentations at the Symposium, authors must submit abstracts of their papers to relevant sessions through the Local Organizing Committee. A complete abstract must include the following information: title(s) of contribution(s), name(s) of author(s), affiliation(s) of author(s), the text of an abstract. When you submit an abstract, you must also indicate which session to submit to in the subject line of your email. The deadline of submitting an abstract is 1 March 2006.

All submissions should be sent to the following email address:

ICCT_HM2006@sgg.whu.edu.cn

More information can be found on the Symposium website

http://www.sgg.whu.edu.cn/icct_hm.html

or alternatively the website of the Intercommission Committee on Theory (ICCT):

<http://der.topo.auth.gr/icct/Wuhan.htm>

PEILIANG XU
Chair of the Symposium

4th IVS General Meeting

January 9-13, 2006, Concepción, Chile

The fourth General Meeting of the International VLBI Service for Geodesy and Astrometry (IVS) will be held January 9-13, 2006, in Concepción, Chile. The IVS holds a technical meeting, called the General Meeting, every two years. The purpose of the meeting is to assemble representatives from all IVS components to share information, hear reports, and plan future activities. The meeting also provides a forum for interaction with other members of the VLBI and Earth



science communities.

The keynote of the fourth General Meeting will follow the main theme "Next Generation VLBI2010". A new geodetic VLBI instrument that will meet requirements for the coming decades is envisioned to have small, fast moving antennas, high-speed networks, new correlator systems, and a streamlined data analysis pipeline. Now is the time to initiate system studies and simulations as well as development projects and prototyping to help bring this vision into reality. Keynote speakers will be asked to address the keynote in their presentations.

The content of the meeting will be of interest to the broad spectrum of IVS members as well as to the wider VLBI and Earth science community. All IVS Associate Members and individuals who have interests in the various applications and research fields of VLBI such as geodesy, astrometry, Earth sciences, and related fields are encouraged to attend the meeting and to make an oral or poster presentation. Non-IVS members are cordially invited to attend the meeting and to make a presentation.

Details about the meeting including the program, accommodations, registration, and abstract submission are available at the meeting web site:

<http://ivscc.gsfc.nasa.gov/meetings/gm2006>

Poster and oral papers may be contributed for presentation at the General Meeting. Contributions are not restricted to IVS Associate Members but may be contributed by anyone attending the meeting. The deadline for submission of abstracts is November 8.

The meeting host is the Universidad de Concepción, Chile.

For further information contact any member of the Local Organizing Committee, the Program Committee, or the Coordinating Center.

DIRK BEHREND

IGAG Sponsored Meetings

Summer School on Microgravimetric methods: static and dynamic aspects

23-28 October, 2005, Lanzarote, Canarias

The International Gravimetric Bureau (BGI), the International Center for Earth Tides (ICET) and the Instituto de Astronomia y Geodesia (IAG) are pleased to announce their joint Summer School on Microgravimetric Methods: static and dynamic aspects. The request for information email is to: bernard.langellier@cnes.fr. Please also visit the BGI website for further details: <http://bgi.cnes.fr>

Fifteen Years of Progress in Radar Altimetry Symposium

13-18 March 2006, Venice, Italy

Fifteen years after the launch of ERS-1 and TOPEX/POSEIDON, the European Space Agency, in collaboration with the French Space Agency, CNES, is organising an exceptional Symposium on "15 Years of Progress in Radar Altimetry". For further information visit the website <http://www.esa.int/venice06>.

3rd IAG Symposium on Geodesy for Geotechnical and Structural Engineering and 12th FIG Symposium on Deformation Measurements

22-24 May, 2006, Baden, Austria

The FIG symposia on deformation measurements and analysis have a long tradition dated back to 1975. The IAG Symposium was established in 1998 and held twice. It will be the first time that the two symposia will be held together as a joint conference. Researchers, engineers, educators, designers, manufacturers, contractors, public authorities, and other professionals are cordially invited to attend this international event. Please also visit the symposium website for further details: <http://info.tuwien.ac.at/ingeo/sc4/baden>.

VI Hotine-Marussi Symposium of Theoretical and Computational Geodesy: Challenge and Role of Modern Geodesy

29 May - 2 June 2006, Wuhan University, PR China

The symposium will be held at Wuhan University, PR China, 29 May - 2 June 2006. More information will be circulated as soon as available and can be found at the website: http://www.sgg.whu.edu.cn/icct_hm.html

“Gravity Field of the Earth” – 1st International Symposium of the IGFS

28 August - 1 September 2006, Istanbul, Turkey

The 1st symposium of IGFS as being a continuation of the symposia series of the former International Gravity and Geoid Commission will be held in Istanbul, Turkey. The major objective is to bring together the geoscientists working in general areas of modeling the Earth's gravity field. For more information visit the website: www.igfs2006.org.

Geodetic Reference Frames GRF2006

9-13 October 2006, Munich, Germany

The Commission 1 „Reference Frames“ of the International Association of Geodesy (IAG) invites scientists and experts from all countries to participate in the Symposium “Geodetic Reference Frames”. The symposium shall give the opportunity to present new ideas, discuss improved models and approaches, and report on latest results of the definition and realization of geodetic reference frames. Detailed information is available at the symposium website: <http://iag.dgfi.badw.de/?grf2006>.

IGAG Related Meetings

The International Symposium on GPS/GNSS 2005 (GNSS2005)

8-10 December 2005, Hong Kong

The International Symposium on GPS/GNSS 2005 (GNSS2005) will take place in Hong Kong, 8-10 December 2005. The symposium will feature a session of presentations from the Civil GPS Service Interface Committee (CGSIC). For details, please visit the following URL: <http://www.lsgi.polyu.edu.hk/GNSS2005/>.

4th IVS General Meeting

January 9-13, 2006, Concepción, Chile

The fourth General Meeting of the International VLBI Service for Geodesy and Astrometry (IVS) will be held January 9-13, 2006, in Concepción, Chile. The purpose of the meeting is to assemble representatives from all IVS components to share information, hear reports, and plan future activities. The meeting also provides a forum for interaction with other members of the VLBI and Earth science communities. For further details visit the webpage <http://ivscc.gsfc.nasa.gov/meetings/gm2006>.

Meeting Reports

7th Conference on Optical 3-D Measurement Techniques

Vienna, Austria, 2005

The 7th conference on “Optical 3-D Measurement Techniques“ was held in Vienna from October 3-5, 2005. It was organized by the Research Group Engineering Geodesy of the Institute of Geodesy and Geophysics of the Vienna University of Technology (Prof. Heribert Kahmen) together with the the Insitute of Geodesy and Photogrammetry of the Swiss Federal Institute of Technology, Zurich, Switzerland (Prof. Armin Gruen). The meeting was cosponsored by the ISPRS Commission V, the IAG Sub-Commission 4.2 and the FIG Commissions 5 and 6. It was the seventh conference in a row and the first six conferences were held alternately in Vienna and Zurich in the years 1989, 1993, 1995, 1997, 2001 and 2003. The conference was attended by 151 participants from 27 countries from

all over the world. Thereby the largest number of participants was from Germany (41 participants) followed by Austria with 19 participants and Switzerland with 14 participants. From other continents the conference was attended by 18 participants from Asia, 8 participants from Australia and 4 participants from America. About 100 papers were presented in 19 technical sessions and one poster session. Thereby the major topic was Laserscanning where a total number of 30 papers was presented in 5 technical sessions. On the first day four presentations were held in the session "Newest Developments in Optical 3-D Measurement Techniques" after the opening ceremony. Here the use of Laser Scanners for the survey and 3-D modelling of a warship and skeletons of dinosaurs and the use of Laser Scanners for mapping bullet trajectories in a crime scene as well as the kinematic determination of digital road surface models using mobile mapping systems was presented. Apart from Laserscanning presentations about "Mobile Mapping" and "Mobile Multi-sensor Systems" were held in 3 sessions on the last day of the conference. Furthermore two sessions on "Face- and Body-Modelling", "Close-range Imaging and Metrology" and "3D-Modelling" were held and one session each on "New (Digital Camera) Developments", "Surface Measurement Techniques", "Measurement and Modelling in 'As-built' Applications" and "Calibration Measurement and Modelling in 'As-built' Applications". On the first two days of the conference six companies (i.e., Trimble and Geodäsie Austria, Riegl, Zoller and Fröhlich, Aicon and 3dAgency) participated in the technical exhibition held in the entrance hall of the conference centre. On the third day a poster session with 24 presentations was held parallel to the technical sessions. The social events included a reception in the Vienna City Hall on the first day of the conference and a typical dinner at a Viennese Wine Tavern ("Heuriger") on the second day.

The conference proceedings was published in two volumes and has in total 825 pages. It can be ordered for a price of Euro 40 (+ Euro 15 for postage and packing for delivery in Europe) by sending an e mail to conf@pop.tuwien.ac.at. The proceedings is also available on CD Rom. Further information can also be found on the website of the conference at <http://info.tuwien.ac.at/ingeo/optical3d/o3d.htm>.

Due to the great success of the conference it was decided to organize the 8th conference on "Optical 3-D Measurement Techniques" in two years and it will be held in Zurich most likely in late September 2007.

GÜNTHER RETSCHER, Vienna
Chairman of the Organizing Committee

ABLOS Conference "Marine Scientific Research and the Law of the Sea: the Balance Between Coastal State and International Rights"

10-12 October 2005, Monaco

The Fourth Biennial ABLOS Conference was held 10-12 October 2005. Hosted by the International Hydrographic Bureau in Monaco, this event attracted some 40 participants for a one-day Tutorial Session on the Fundamentals of UNCLOS Article 76, and about 30 more for the two-day Symposium that followed on "Marine Scientific Research and the Law of the Sea: the Balance Between Coastal State and International Rights". With timetables organized to provide ample opportunities for audience participation, lively discussion was very much the order of the day for both the Tutorial Session and the Symposium, and significant quantities of legal and technical information were exchanged across the floor of the conference room. Proceedings have been posted on the ABLOS homepage at http://www.gmat.unsw.edu.au/ablos/ABLOS05Folder/ablos05_papers.htm.



2005 conference participants photographed on the roof of the building housing the IHB, beside Monaco Harbour.

CHRIS RIZOS (EX-CHAIR)

Advisory Board on hydrographic, geodetic and marine geo-scientific aspects of the Law of the Sea (ABLOS).