



IASPEI 2003 ASSOCIATION ACTIVITIES

Scientific Meetings

IUGG 23rd General Assembly IASPEI 32nd General Assembly

The 23rd General Assembly of IUGG and the 32nd General Assembly of IASPEI were held at Sapporo, Japan, from 30 June through 11 July 2003. 4,151 scientific participants attended the IUGG General Assembly, 658 of who were affiliated with IASPEI. 7121 abstracts were submitted of which 5137 were presented.

An exciting scientific program highlighted the latest developments in IUGG fields of research, as well as comprehensive summaries of scientific progress since the 1999 General Assembly. A special feature was a series of symposia under the title "State of the Planet: Frontiers and Challenges." These symposia included lectures invited by the President of the IUGG and each of the 7 IUGG Associations. Topics included: (1) Prediction and Predictability;

- (2) Volatiles in Volcanic Arcs: from slab to stratosphere;
- (3) Earth Systems and Global Change;
- (4) Geophysical Risk and Sustainability on a Crowded Planet;
- (5) Structure and Dynamics of the Earth's;
- (6) New Sensors of our Planet - What is Possible?

The scientific program also featured a comprehensive and multi-disciplinary program of oral and poster presentations organized by scientists in IUGG, the IUGG Associations (including IASPEI), Studies of the Earth's Deep Interior (SEDI), and the International Lithosphere Program (ILP). Featured symposia on the structure and dynamics of the Interior, monitoring and modeling of processes related to prediction research, thermally controlled processes within the Earth, physics and chemistry of Earth's materials, structure and dynamics of Earth's crust/lithosphere, modeling seismic sources, tectonics, earthquake hazard and risk, and education and outreach programs were organized.

Asian Seismological Commission

A Business Meeting of the IASPEI Asian Seismological Commission (ASC) was held on 4 July 2003 during the IUGG2003 General Assembly in Sapporo, Japan. Twenty-five participants from 13 countries attended the meeting.

The ASC Pilot Projects Steering Committee introduced the following proposals for pilot projects: Further improvement of the seismic hazard evaluation in developing countries; Seismic risk assessment: regional and local contexts; Seismic risk reduction in the selected most vulnerable urban areas; and Current seismic hazard assessment for early warning and notification.

Plans for the 5th Asian Seismological Commission General Assembly, to be held October 18-21, 2004, at Yerevan, Armenia, were discussed. The scientific program will include the following symposia: Recent Devastating Earthquakes; Earthquake Source Physics: Pre-seismic, Co-seismic and post-seismic phenomena; Stress field, seismotectonic, paleoseismology, focal mechanisms & GPS observations; Strong ground motion, earthquake hazard and risk assessment; Current seismic hazard assessment, early warning, earthquake forecast and predictions; Seismic risk reduction and management; Heatflow, Volcanology, lithosphere, structure of Earth's interior; and Public awareness, education and training - social impacts of strong earthquakes. There is also planned a pre-symposium training course on "Recent Trends in Seismic Networks Data Processing and Exchange, Hazard and Risk Assessment" and a post-symposium field trip.

European Seismological Commission

A Business Meeting of the IASPEI European Seismological Commission (ESC) was held on 4 July 2003 during the IUGG2003 General Assembly in Sapporo, Japan. Twenty-two participants from 11 countries attended the meeting.

Plans for the 29th European Seismological Commission General Assembly, to be held during September 12-17, 2004, at Potsdam, Germany, were discussed. The scientific program will include symposia on:

- Seismicity of the European-Mediterranean Area
- Data Acquisition, Theory and Interpretation
- Earthquake Source Physics
- Crust and Upper Mantle Structure
- Earthquake Prediction Research
- Engineering Seismology
- Rapid Intervention Field Investigation Teams
- Earthquake sources, Hazard and Risk in the Southern Mediterranean: North Africa and Near East
- InSAR and GPS Technology Applications in Monitoring Crustal Deformation
- Education and Outreach

A Young Seismologist Training Course will be held on September 9-12 prior to the Assembly: "Moment Tensor Inversion/a Practical for Beginners"

IASPEI Workshops

Workshop on Numerical Simulation of Mantle Convection

A workshop on numerical simulation of mantle convection was held in the Czech Republic, September 13-18, 2003.

CSS Workshop

The 10th International Symposium on Deep Seismic Profiling of the Continents and their Margins was held in Taupo, New Zealand from the 6th to the 10th January 2003. A post-conference field excursion was held from the 11th to the 14th January 2003. Several international working groups and committee meetings were held after the completion of sessions on the 7th January.

This Commission on Controlled Source Seismology (CCSS) workshop focused on methodological aspects of reflection and refraction seismology as applied to crustal and lithospheric targets. The goal is the development and assessment of improved acquisition, processing, modelling, inversion, integration, and interpretation procedures.

The symposium was co-organised by the Institute of Geological and Nuclear Sciences (IGNS), New Zealand and Geoscience Australia (GA), Australia. The symposium attracted the latest and best results on active source deep seismic imaging from around the world.

The active source research community has indicated at the 9th International Symposium in Norway in June 2000 that it would like to investigate possible research links with the passive source research community. At the symposium in New Zealand, this was facilitated through a session on mantle structure convened for us by Ms Tara Deen, a Postdoctoral Fellow at the GEMOC Key Centre at Macquarie University in Sydney Australia. This initiative allowed the symposium to attract a number of passive source seismologists, many of whom also provided input to papers in other sessions. In summary, there now appears to be a number of case studies in which passive source techniques have been used alongside active source techniques for researching problems which were once addressed by only by active techniques. The presentation of the scientific results to a broad spectrum of the research community, as well as a lively debate on the Tuesday evening on Earthscope and the opportunities it will create for international collaboration, are sure to enhance the cross fertilisation of the scientific disciplines.

One of the outcomes of the demonstrated benefits arising from studies that combine active and passive imaging techniques is that a discussion during the business session on Tuesday night on the succession plans for the Commission on Controlled Source Seismology recognised the importance of passive techniques. The researchers present recommended rolling the activities of CCSS into a new Working Group on Lithospheric Imaging within the Commission on Earth Structure & Geodynamics. The meeting felt that the title indicated a move away from just active ("Controlled Source") seismology to all forms of seismic imaging.

One hundred and six (106) professionals, from twenty-one (21) countries, attended the conference. Seventy-four (74) oral papers were presented and one hundred and fifteen (115) poster presentations were displayed.

Discussions with Elsevier began before the symposium to arrange for publication of the conference proceedings in Tectonophysics.

The IASPEI/IUGG US\$2000 support was meant for attendees from a developing country to attend this symposium. It was awarded to Zhongjie Zhang, Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing, P.R. China, who presented two papers. Mr Zhongjie Zhang was extremely grateful for the award and thanked IASPEI/IUGG for granting the money.

Activities Involving Developing Countries

IASPEI has at its disposal 48 copies of the International Handbook of Earthquake and Engineering Seismology (Parts A and B) and 103 copies of the IASPEI Manual of Seismological Observatory Practice (Volumes 1 and 2) described below. Free copies of these publications are being distributed to institutional libraries located in less developed countries.

International Handbook of Earthquake and Engineering Seismology (Parts A and B).

A two-volume comprehensive review of earthquake and engineering seismology is now available. This state-of-the-art work, edited by W.H.K. Lee, H. Kanamori, P.C. Jennings, and C. Kisslinger, fulfills an IASPEI ambition to create a useful reference for earthquake and engineering seismologists, as well as earthquake engineers, geologists, and geophysicists. Part A, which includes a CD-ROM, features 56 full-length chapters detailing the history of seismology, theoretical and observational seismology, earthquake geology and mechanics, and the Earth's structure. Part B features 34 chapters detailing strong-motion seismology, selected topics in earthquake engineering, earthquake prediction and hazards mitigation, and miscellaneous topics, including over 50 national reports and 2 CD-ROMs. Each volume contains about 1,000 pages, printed in top-quality paper (8.5 by 11 inch size with hard cover, and weighs about 3.6 kilograms). For more information, please consult the website "<http://www.academicpress.com/quake>".

IASPEI Manual of Seismological Observatory Practice (Volumes 1 and 2)

The new Manual, edited by Peter Bormann, outlines in a very consistent way the social and scientific goals as well as the scope, technology, methodology and basic procedures of observatory seismology. It provides the essential scientific and technical fundamentals, reveals their inter-relationship and motivates observatory personnel to do their job as carefully as possible. The Manual is published in two volumes as a loose-leaf collection in two clamp-folders. Volume 1 comprises 13 topically and didactically closely linked chapters. Volume 2 is an annex volume comprising information sheets with a more elaborate treatment of special problems, program descriptions, data sheets and practical exercises related to basic observatory tasks. For more information, please consult "http://www.seismo.com/msop/msop_intro.html" and "http://www.gfz-potsdam.de/pb2/pb21/index_e.html".

Working Group on Subduction Zones Located in Developing Countries

A meeting of the IASPEI/IAVCEI Working Group on Subduction Zones Located in Developing Countries was held on 4 July 2003 during the IUGG2003 General Assembly in Sapporo, Japan. Present were representatives from Indonesia, the Philippines, Nigeria, Argentina, and Germany. Plans for future activities within the Working Group include:

- (1) Joint research on the seismotectonics of the Mindanao through to the Molucca region;
- (2) Workshop on subduction zone related topics, in particular regarding earthquake as well as volcanic hazard mitigation in developing countries.

This workshop is planned to be held during the joint IASPEI-IAVCEI-IAG-IAGA General Assembly, 2006. However, a pre-workshop on the same topic will be proposed;

(3) Meeting of the Working Group representatives from at least three countries during the AGU Fall Meeting 2003 to finalize the proposal for the workshops mentioned above;

(4) Establishment of an electronic bulletin board; and (5) Improved communication links through the working group mailing list (szdc-wg-subscribe@yahoo.com).

Additional activities include:

(1) Seismic tomographic models of subduction zone structures worldwide are available for joint research

activities within the Working Group (contact sriwid@geoph.itb.ac.id);

(2) The next working group business meeting is planned to be held during the coming IAVCEI General Assembly, Santiago-Chile, 2004; and

(3) Working Group mail list (<http://groups.yahoo.com/group/szdc-wg/>)

Publications

IASPEI Bulk E-Mail System - IASPEI uses this system to broadcast announcements about forthcoming meetings and other information of interest to IASPEI members.

IASPEI Home Page - IASPEI continues development of its Home Page on the WorldWideWeb which contains organizational information, a publications list, meeting announcements and Internet connections and other information of interest to IASPEI scientists. The current address for this web site is: <http://www.iaspei.org/>

IASPEI Brochure - The IASPEI Secretariat with the assistance of Carl Kisslinger (Editor) has published a 26 page Brochure entitled "The International Association of Seismology and Physics of the Earth's

Interior: Cooperation for Better Understanding of the Earth". Copies can be obtained from the IASPEI Secretariat.

Special Projects

Publication of IUGG 2003 Proceedings of Hazards-Related Symposia and Workshops - Support has been provided for publication of IUGG 2003 proceedings of hazards-related symposia and workshops by the Seismological Press Beijing, China. Now there have been 22 papers submitted to the Proceedings IUGG Special Volume. The submissions in their original form are listed below and can be seen on the SHR website (http://www.icce.ac.cn/shr_iaspei). The contract with the Seismological Press has been signed, the editing process is starting, and it can be predicted that more submissions are forthcoming.

Sapporo meeting of ESC ??

Allocation of IUGG money to Seismic 2003 participant

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