



IN THIS ISSUE

Foreword.....	1
FIRST General Assembly of the African Seismological Commission (AfSC).....	2
2nd Regional Assembly of the Latin American and Caribbean Seismological Commission (LACSC).....	3
35th General Assembly of the European Seismological Commission (ESC)	3
10th International Workshop “Physics and Forecasting of Rock Destruction”	4
IASPEI WG on Automatic and routine Moment tensors..	5
Meetings Calendar.....	6
General Information about IASPEI	7



Foreword

Dear Readers,

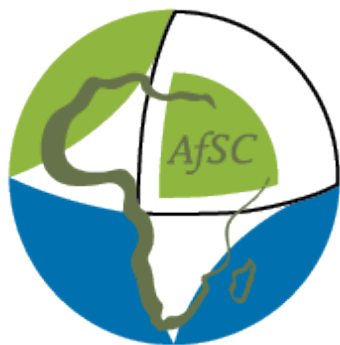
This last issue of the IASPEI Newsletter in 2015 consists mostly of conference invitations. 2016 will be an important year for the regional activities of IASPEI. All four regional Commissions of IASPEI will hold their Assemblies. IUGG will sponsor the regional meetings in Costa Rica and Egypt, as well as a workshop in Apatity on the Kola Peninsula, Russia, with a small sum. IASPEI hopes they all reach seismologist audiences in these regions and enable participants to discuss the most urgent seismological issues particularly relevant for each region. The exact date for

**MERRY HOLIDAY SEASON and
HAPPY NEW YEAR 2016 to
ALL OF YOU!**

the assembly of the Asian Seismological Commission is still not decided but this Commission will meet in Melbourne at the end of November 2016. More information will be published in the next IASPEI Newsletter.

During the GA in Prague, a new Working Group on “Automatic and routine Moment tensors” was founded. Their ideas and working plan are presented for your information in this Newsletter.

Johannes Schweitzer
Secretary General



FIRST General Assembly of the African Seismological Commission (AfSC) Nile River, Egypt 2 – 5 April 2016

For a long time it has been a dream for many African seismologists to have their own commission that will represent them and help to solidify the resources and capacity available within the continent in order to mitigate earthquake risks and contribute towards sustainability and to improving the resilience of the community against such hazards. These efforts have finally lead to the establishment of the African Seismological Commission (AfSC) which is the youngest regional commission within the International Association of Seismology and Physics of the Earth's Interior (IASPEI) with its bylaws only recently created and accepted in 2014 and its website launched in 2015 (www.afsc-web.org.za).

With these preliminaries achieved, the AfSC is planning to host its FIRST General Assembly from 2 to 5 April 2016, on a cruise ship on the River Nile starting from Luxor, one of the oldest inhabited cities in the world with records of historical Earthquakes dating back to 2000 B.C., to Aswan where the highest and largest dam in Africa may be found, accompanied of course with its own associated induced seismicity.

The host country Egypt is a country of historical importance in seismology within Africa since it was where the first seismograph station was installed in 1899 at Helwan, south of Cairo and it is appropriate that it is the country where the first AfSC general assembly is to be held.

The first general assembly will comprise of different scientific sessions ranging from seismic monitoring, seismotectonics and seismic hazard to education and outreach.

All scientists interested in seismological studies within Africa are invited to participate in this historical event.

The Assembly will be followed by a training course for African Seismologist in Aswan 6 – 9 April 2016.

For further information on the general assembly and the training course, please visit the conference website www.afsc2016.org.

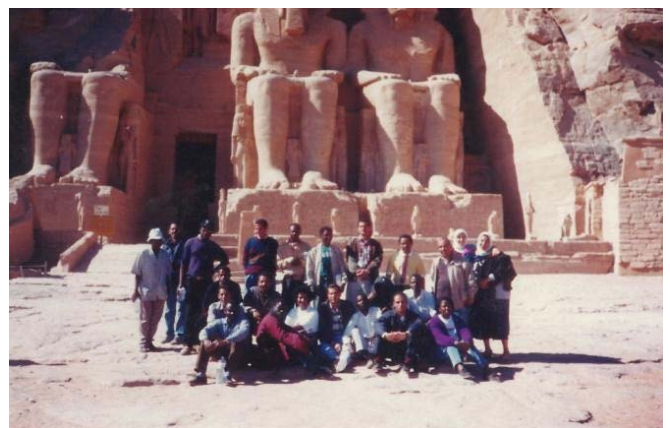


Photo of African Seismologists outside Abu-Simbel, Aswan (1984)



IASPEILATIN AMERICAN AND CARIBBEAN SEISMOLOGICAL COMMISSION
SEISMOLOGY FOR SCIENCE AND SCIENCE FOR SOCIETYSeismology for Science and Science for Society
June 20th - 22nd, 2016. San Jose, Costa RicaSan José - Heredia
Hotel and Convention Center

Regional Assembly of the Latin American and Caribbean Seismological Commission (LACSC) Costa Rica 20 – 22 June 2016

The Latin American and Caribbean Seismological Commission (LACSC) is pleased to invite the entire geophysical community of the planet to its II Regional Assembly, which will be held in San José, Costa Rica, from the 20th to the 22nd of June 2016. LACSC is one of four Regional Commissions of IASPEI.

During the last few years, the Latin American and Caribbean region has undergone rapid seismological development, in both local network density, as well as scientific production. Individual country networks are beginning to be integrated into large regional, continental and global networks, allowing real time acquisition of a large amount and variety of seismic data. Geodynamic control networks on volcanoes and for urban seismology are opening new windows for the understanding of natural processes that generate disasters and for the mitigation of their effects.

This second assembly of LACSC aims to bring together scientists from all over the world and from many different geophysical fields. We already have 27 scientific sessions confirmed for this meeting which include themes like active, passive and surface wave

tomography, seismic networks, tsunami studies, natural and anthropogenic induced seismicity, regional and local tectonics, GPS for tectonics and seismology, intra- and inter-plate seismicity, urban seismology, offshore instrumentation, subduction processes, active geomorphology, paleoseismology, seismic hazards, seismological applications in engineering, slow slip events, tectonic tremor and volcano seismology, among others.

We invite theoretical seismologists, instrumentalists, volcano seismologists, paleoseismologists, earthquake engineers, seismological software programmers, crustal deformation geodesists, seismic source modelers, seismological instrumentation developers, seismic tomographers and any other geophysicists interested in contributing or learning about the future of seismology.

This scientific event will be hosted by both the Costa Rica National Academy of Sciences (ANC), the IUGG adhering institution, as well as by the National University (UNA), home of the Costa Rica Volcanological and Seismological Observatory (OVSICORI-UNA).

We look forward to seeing you in San José, Costa Rica.

Marino Protti
President Latin American and Caribbean
Seismological Commission

35th General Assembly of the European Seismological Commission

4-10 September
2016**Trieste**

The 35th General Assembly of the European Seismological Commission (ESC) (www.35esc2016.eu) will be held from 4 to 10

September 2016 in Trieste, Italy, hosted by the OGS, the National Institute of Oceanography and Experimental Geophysics of Italy. Trieste is an international and multicultural city by long tradition, proudly maintaining its historical and architectural heritage from Roman foundation to Hapsburg times.

Trieste, one of the largest hubs for research institutions in Italy, is located in a region where earthquakes have no borders. 2016 will mark the 40th anniversary of the 1976, Friuli earthquake, a turning point for earthquake research and seismic risk mitigation. Together with Institutions in the close and neighboring countries of Slovenia, Austria and Croatia, the pre- and post-conference tours will focus on large historical earthquakes in this border region and on the unrivaled collections of historical seismometers still operating in the area.

The thematic areas of the 35th General Assembly will include:

- Physics of earthquakes
- Structure of the Earth's interior
- Seismic networks, data acquisition, and processing
- Induced seismicity
- Seismic hazard and risk, including site effects
- Non-instrumental seismology
- Recent significant earthquakes
- Seismology, social sciences, education and outreach
- Earthquake forecasting and prediction

The call for special sessions was recently opened and proposals can be submitted by January, 15, 2016.

Note that the number of special sessions is limited to 25, including one, following the suggestion of the ESC Executive Committee, focusing on seismic networks that will be dedicated to the memory of Torild van Eck and one, jointly organized with the Seismological Society of America. Please, note that proposals for the latter should

include at least one European and one USA convener.

Continuing the tradition of the ESC General Assembly, the week preceding the conference the Young Seismologist Training Course (that following the proposal of the ESC Executive Committee will be from now on dedicated to the memory of Peter Bormann) will take place and will be focused on the theme "Seismology beyond the textbook".

The training course will be part of the International Center for Theoretical Physics training activities.

We look forward to meeting you in Trieste.



10th International Workshop "Physics and Forecasting of Rock Destruction", Apatity, Murmansk region of Russia, June 7 – 12, 2016

The 10th International Workshop "Physics and Forecasting of Rock Destruction" will be held in Apatity (Murmansk region of Russia) on 7-12 June, 2016. The goals of the workshop correspond to the main aims of IASPEI Commission on Earthquake Generation Process – Physics, Modeling and Monitoring for Forecast. Such workshops are held regularly since 1982.

The upcoming workshop will discuss modern advances in the field of physics and

forecasting rock destruction within the framework of four basic sessions.

The first direction is focused on problems in the theory of rock destruction, mathematical and physical modeling of processes in the sources, the spatial-temporal patterns of development of earthquake sources, rock bursts, influence of trigger mechanisms on the processes of instability of rocks.

The second area is dedicated to the discussion of problems of catastrophe theory and phase transitions in energetically open systems, self-organized criticality, and collective behavior of cracks.

The third area relates to precursors of earthquakes and the methods of their separation from the background noise, as well as new approaches to earthquake prediction, prognostic methods and algorithms, methods and software to identify anomalies for forecasting using a complex of seismological, geophysical, hydrodynamic and geochemical parameters.

The fourth area is related to the theory and practice of studying, prediction and prevention of catastrophic events in mines.

Within the framework of each direction key lectures will be presented. Ways of practical applications of physics of earthquakes and rock destruction, as well as the questions of creative interaction between participants, will be approached at the final stage of the workshop during the open discussion.

Detailed information in Russian can be found on the official website of the workshop <http://www.xmsc.ru/>. Until the English version of the web-site is ready, further information about the workshop can be requested from Prof. Alexey Zavyalov (zavyalov@ifz.ru) or the scientific secretary of the organizing committee, Julia Fedotova (fjulia@mail.ru).

IASPEI WG on “Automatic and Routine Moment Tensors: Benchmark and Verification Platform”

Routine and automatic moment tensor analysis is more and more developing and used by several agencies, Universities and surveys. Systematic global and regional moment tensor services are nowadays becoming a standard in many countries, and different catalogs are provided for the community. In parallel, a range of software toolboxes offering standard moment tensor tools are available to seismologists, but their results depend very much on the data pre-processing, data selection and implemented methodologies. For example, comparisons of moment tensor catalogs often showed systematic differences among source parameters, e.g., already in seismic moment or moment magnitude. However, since quality criteria for the processing and method implementation are often not easily available or not provided, systematic comparisons between moment tensor routines cannot be easily performed, and the origin of moment tensors discrepancies cannot be easily investigated. The assessment of source model solutions becomes even more difficult at the following steps of development, which can tackle for example automatic and routine kinematic solutions.

In response to these problematics, and considering the relevant role that earthquake source inversion procedures still play to advance seismological research, we created a new IASPEI working group (WG) on routine moment tensor inversion, which counts on the collaboration of many seismologists active in the field of earthquake source inversion. The main aim of our WG is to develop and implement a benchmark and verification platform for moment tensor inversion procedures, and to publish recommendations for the scientific community on how to use the testing structure. The idea is that new (routine) methods and young researchers new to the field can find and use the benchmark

and verification platform to test their developments over a broad range of applications. This should lead to better comparable moment tensor results (e.g., at local, regional, teleseismic distances) for the community.

The concept how to design and how to reach the aims will be discussed within the WG. A first suggestion concerns the development of a database of ground truth events representative of a broad type of seismicity and monitoring conditions, and including synthetic datasets (e.g., Green function databases), so that users can verify their codes with individual events, but also their processing approach by creating their own dataset adapted to the geometry, frequency range or event types they would like to analyze. In our vision, the database will be accessible via a platform with an implemented “generator tool” (e.g., a seedlink server). A toolbox for automatic comparing own results to results from others may be provided. We suggest that the system does not actively compare different methods, but only provides standardized comparison reports as feedback. The reports may be used as reference by the services.

T. Dahm¹, S. Aoi², S. Cesca¹, D. Dreger³, G. Ekström⁴, E. Fukuyama², S. Heimann¹, T. Kimura², F. Krüger⁵, K. Lentas⁶, A. Morelli⁷, S. Pondrelli⁷, J. Saul¹, T. Sokos⁸, D. Stich⁹, M. Vallee¹⁰

¹ GFZ German Research Centre for Geosciences
Potsdam, Germany

² NIED, Japan

³ Berkeley Seismological Laboratory, University of
California, US

⁴ Lamont-Doherty Earth Observatory, Columbia
University, US

⁵ University of Potsdam, Germany

⁶ International Seismological Centre, UK

⁷ INGV, Italy

⁸ University of Patras, Greece

⁹ University of Granada, Spain

¹⁰ IGP Paris, France

Meetings Calendar

We report below titles, dates, places and websites of the forthcoming meetings relevant to the interests of IASPEI scientists. If you are aware of events not listed below, please inform the Secretary General.

2016

AGU Chapman Conference on the Slow Slip Phenomena.

February 21 – 25, 2016 Ixtapa, Guerrero, Mexico

URL: <http://chapman.agu.org/slowlip/>

African Seismological Commission (AfSC), 1st General Assembly 2016

April 2 – 5, 2016, River Nile between Luxor and Aswan, Egypt

URL: <http://www.AfSC2016.org/>

European Geosciences Union General Assembly 2016

April 17 – 22, 2016, Vienna, Austria

URL: <http://www.egu2016.eu/>

Seismological Society of America (SSA) Annual Meeting

April 20 – 22, 2016, Reno, Nevada

URL: <http://www.seismosoc.org/meetings>

10th International Workshop “Physics and Forecasting of Rock Destruction”

June 7 – 12, 2016, Apatity, Murmansk region, Russia

URL: <http://www.xmsc.ru/>

Latin American Caribbean Seismological Commission (LACSC) Regional Assembly 2016

June 20 – 22, 2016, San Jose, Costa Rica

URL:

<http://www.lacsc2016.com/ingles/index.html>

SEDI 2016

July 24 – 29, 2016, Nantes, France

URL: www.sedi2016.org

35th International Geological Congress (IGC)

August 27 – September 4, 2016, Cape Town, South Africa

URL: <http://www.35igc.org>

35th European Seismological Commission (ESC), General Assembly 2016

September 4 – 10, 2016, Trieste, Italy

URL: www.35esc2016.eu

2017

16th World Conference on Earthquake Engineering (WCEE)

January 9 – 13, 2017, Santiago, Chile

URL: <http://www.16wcee.com/>

IAG – IASPEI: Joint Scientific Assembly

July 30 – August 4, 2017, Kobe, Japan

2019

27th IUGG General Assembly

July 8 – 17, 2019, Montreal, Canada

General Information about IASPEI

The International Association of Seismology and Physics of the Earth's Interior is one of the eight Associations of the International Union of Geodesy and Geophysics [[IUGG](#)].

The other IUGG Associations are:

Int'l Association of Cryospheric Sciences [[IACS](#)]

Int'l Association of Geodesy [[IAG](#)]

Int'l Association of Hydrological Sciences [[IAHS](#)]

Int'l Association of Meteorology and Atmospheric Sciences [[IAMAS](#)]

Int'l Association for the Physical Sciences of the Oceans [[IAPSO](#)]

Int'l Association of Geomagnetism and Aeronomy [[IAGA](#)]

Int'l Association of Volcanology and Chemistry of the Earth's Interior [[IAVCEI](#)]

Scientific Assemblies

IASPEI holds an Ordinary General Assembly every four years in conjunction with each Ordinary General Assembly of IUGG. Between the General Assemblies, IASPEI holds a Scientific Assembly, sometimes meeting with one of the other Associations of IUGG.

Participation in IASPEI Activities

Since July 2015, all scientists participating in IASPEI activities are counted as **members** of IASPEI (see <http://www.iaspei.org/statutes.html>). IASPEI welcomes all scientists throughout the world to join in research into Seismology.

IASPEI is subdivided into a number of Commissions, many of which have working groups for the study of particular subjects in their general areas of interest. On occasion, these internal IASPEI groups issue their own newsletters or circulars and many maintain their own web sites. At the IASPEI Assemblies, the groups organize specialist symposia, invite scholarly reviews and receive contributed papers that present up-to-the-minute results of current research. The IASPEI web site gives, or provides links to, information on the range of IASPEI activities.

The IASPEI Web site

Information on IASPEI can be found at:

<http://www.iaspei.org/>

Contacting IASPEI

The Secretary-General is the main point of contact for all matters concerning IASPEI.

Dr. Johannes Schweitzer

NORSAR
Gunnar Randers vei 15
PO Box 53, N-2007 Kjeller
Norway
Mobile: +47 41 61 49 46
Phone: +47 63 80 59 00
E-mail: iaspei@norsar.no