



**IASPEI**

Co-operate internationally to better understand our Earth

<http://www.iaspei.org>

**IASPEI:  
Fruitful 2008,  
Prospective 2009 and beyond**

**President address at the  
IASPEI Assembly, Cape Town**





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- **Firstly on behalf of IASPEI Bureau and IASPEI Executive Committee, I would like to express our sincere thanks to all of you for coming to the IASPEI Assembly**
- **I would like to express our sincere thanks to the Local Organization Committee (LOC) for their works in the successful organization of this important event.**
- **Meanwhile, I would like to extend our thanks to the leaders of IUGG for their attendance, their talks, and their support to the work of IASPEI.**





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- As stated in our status, the mission of IASPEI is to **co-operate internationally to better understand our Earth**.
- In the year 2008, through the effort of seismologists from different places of the world, there have been many significant advances in such cooperation.

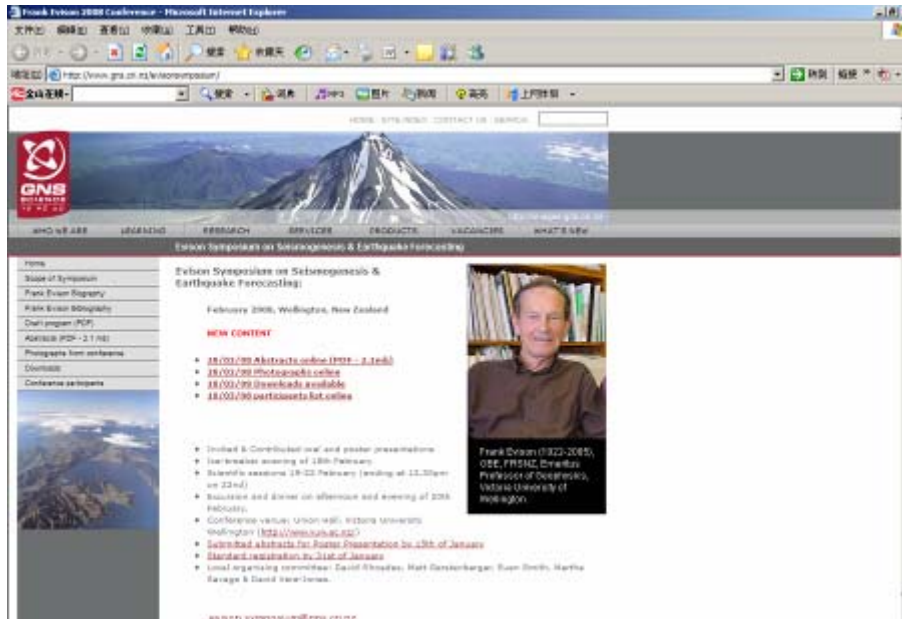


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- In February, **Evison Symposium on Seismogenesis and Earthquake Forecasting**, Wellington, explored new possibilities for the collaborative study of earthquake forecast. Now IASPEI has an active Working Group promoting the Collaboratory for the Study of Earthquake Predictability – this year there will be several meetings related to this topic. And in this Assembly, Prof. Tom Jordan, leader of this project, will be giving his keynote lecture.



IASPEI 2008 an informal and incomplete memory



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- In March, Marked by the Planning Meeting of the **International Scientific Studies of the Implementation of the CTBT Verification System** (called ISS project by the CTBTO PrepComm PTS), Vienna, cooperation between IASPEI and IMS started a new period – and the most important event in this year will be the **ISS 09** conference in June.

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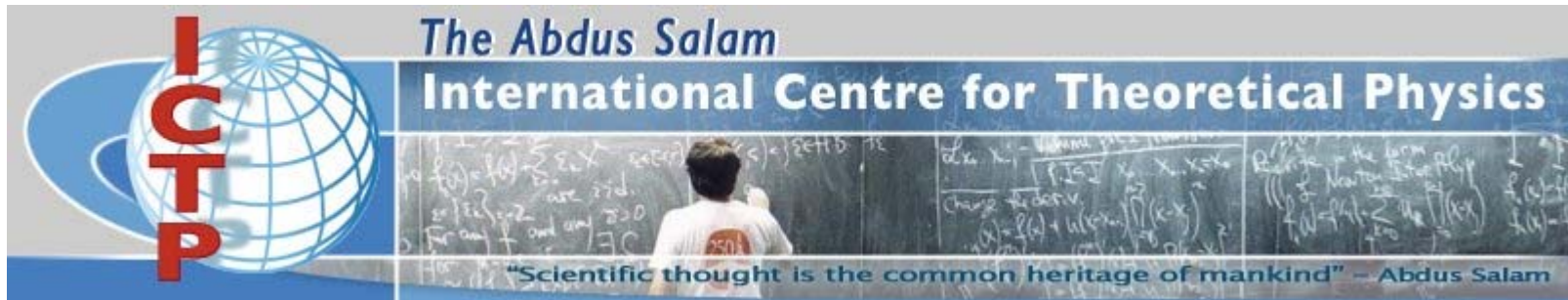
- In May, after the devastating Wenchuan earthquake, sympathy, aids, and helps from international seismological community to Chinese seismologists indicated our radical notion to collaborate internationally for the reduction of earthquake disasters.
- Also taking this opportunity, on behalf of the Commission for International Cooperation of the Seismological Society of China, and on behalf of myself as a Chinese seismologist, I would like to express our sincere thanks to the colleagues who helped or showed the willingness to help in all the way after the earthquake.
- This year there will be an international symposium related to this earthquake to be held in China.



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- In September, the **9th Workshop on 3D Modelling of Seismic Waves Generation** was held in Trieste, as one of the activities of the continuous cooperation between ICTP and IASPEI – and this year there will be the workshop on seismic hazard.

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- In October, during the **14th World Conference on Earthquake Engineering (WCEE)**, Beijing, the IAEE-**IASPEI Dialogue mechanism** was formulated – this mechanism will be kept in the next WCEE meeting in Portugal.





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**CAPE TOWN INFO**

When you visit Cape Town, bring your camera!

Table Mountain presides majestically over the entire city bowl, with landscapes as diverse as beaches and winelands just a short drive away.

Cape Town is the second largest economic hub of South Africa and is indeed a city that embraces its ancient and recent history, fusing it with a sense of cutting edge design, contemporary fashion, and social chic. In addition, top-notch service and excellent meeting facilities converge with a world-class infrastructure to deliver a sophisticated business environment.

The Mother City is held in high regard by leisure and business tourists around the world and enjoys an international reputation for superior service and first-rate facilities, all against a backdrop of awe-inspiring natural beauty.

We look forward to welcoming you to Cape Town!

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**IASPEI**  
General Assembly  
2009

*moribo wa Lafatshe*

Cape Town

10–16 January 2009

[www.geoscience.org.za/iaspei2009](http://www.geoscience.org.za/iaspei2009)

Council for Geoscience

- Throughout the year 2008, organization of this IASPEI Assembly was the highlight of the year. This Assembly is the first IASPEI Assembly in Africa, and will mark the beginning of the more fruitful 2009 – and now it's time for us to think where should be the next place for the IASPEI Assembly in 2013.

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# IASPEI

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- Through our commissions and working groups, international cooperation for **education and outreach**, **seismological observation and interpretation**, **studies on tectonophysics and crustal structure**, **earthquake sources**, **Earth structure and geodynamics**, **earthquake hazard, risk and strong ground motion**, and **digital broadband seismograph networks**, kept getting continuous progress.



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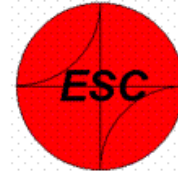
- Cooperating with our sister associations, IASPEI also contributed to the studies on **the physics and chemistry of Earth materials**, **volcano geophysics**, **heat flow**, **electromagnetic studies of earthquakes and volcanoes**, and **tsunami warning**, as well as the international cooperation in various aspects such as **international ocean network**, **Earth sciences in Africa**, **studies on subduction zones located in developing countries**, and **re-use of submarine telephone cables**, as well as non-rigid Earth nutations, mathematical geophysics, lithosphere study, and geophysical risk and sustainability.



# IASPEI

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- IASPEI has two active regional commissions.
- In September, 2008, **European Seismological Commission (ESC)** held its 31st General Assembly in Hersonissos, Crete island.
- In November, the **7th General Assembly of Asian Seismological Commission (ASC) and Seismological Society of Japan (SSJ) 2008 Fall Meeting** was held in Tsukuba, being the first joint meeting of ASC with national seismological society.



# IASPEI

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- Among the IASPEI-sponsored projects let's just mention the working group on rotational seismology and the SeismoArchives project.
- Through the efforts of these experts, we have so many projects on-going, contributing to the innovation of earthquake science and the reduction of earthquake disasters.



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# IASPEI

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- The year 2008 was decisive for the **Global Earthquake Model (GEM)** project, with IASPEI and IASPEI-people playing an active role – in 2009 this project will be formally launched.

A program of the OECD

overview science sponsorship meetings contacts

A public - private partnership



**GEM**  
Global Earthquake Model

An independent standard to calculate and communicate earthquake risk, raise awareness, promote mitigation and insurance use, and stimulate risk transfer.

**Meetings**

GEM Software and Standards Group, 22-23 May 2008, Coltech/USGS

GEM Strategic Planning Meeting (72 scientists from 26 countries), 14-16 June 2008 Strategic Planning meeting, Zurich Development Centre (Rosa Steini's vision/mission speech)  
Summary Presentations from the break-out groups:  
Hazard Module (FPPT) (PDF)  
Risk Module (FPPT) (PDF)  
Economics Module (PPT) (PDF)



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Designed and maintained by [Ocean Swegen, USGS](#)

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# IASPEI

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- In 2009, we are expecting many new events and advancements, as can be seen from our website.
- Also taking this opportunity I would like to thank Alice Walker, our website manager, for her contributions to make our website and newsletters more and more beautiful.

IASPEI: One of Seven Associations Forming IUGG - Microsoft Internet Explorer

http://www.iaspei.org/

## International Association of Seismology and Physics of the Earth's Interior

**About IASPEI**

IASPEI promotes the study of the structure, properties and processes of the Earth. It is one of the eight Associations that comprise the International Union of Geodesy and Geophysics (IUGG).

**LATEST NEWS**

- IASPEI General Assembly, Cape Town, South Africa 18 - 20 January 2009
- New IASPEI Publications Programme for December 2008
- 2008 IASPEI General Assembly, South Africa Website
- Auxiliary Programmes for Cape Town
- Scientific programme for Cape Town 2009
- 2008 IASPEI General Assembly, Final Circular
- Cape Town Preliminary Timetables
- Post-Box, Job Opportunities at IUGG-SCRPPS
- December 2008 Newsletter

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# IASPEI

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- **We have had so many memorable firsts in 2008. The above review is absolutely incomplete.**
- **All these records were made by all of you, colleagues from different countries and working on different scientific problems.**
- **Specially, we recognize the decisive contribution from our national committees – here we have an announcement that national correspondents (or their representatives) please come to the IASPEI secretariat located in Room 1.93 at any time, to sign your name.**

**IASPEI 2008** an informal and incomplete memory





# IASPEI

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- In 2005, also in the south hemisphere, during the IASPEI Assembly in Santiago, Chile, Prof. Bob Engdahl, who served IASPEI as secretary general for three terms and as president by then, said:
- *The organizational structure and the scientific programs of IASPEI have been created around an essential and guiding concept. International cooperation is the guiding principle for the advancement of seismology and the physics of the Earth's interior.*

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**IASPEI**

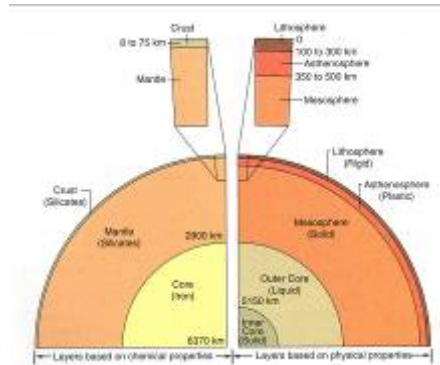
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- **Currently seismology and physics of the Earth's interior are facing to a historic time...**

# Physics and mathematics applied to Earth science

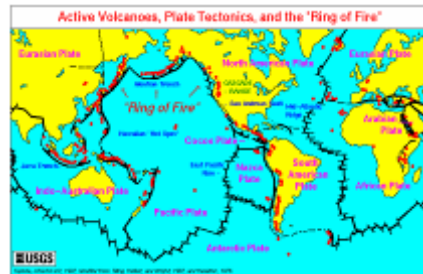
1910s~1930s



Seismology  
Gravity  
Geomagnetism

## Global survey and interdisciplinary study

1950s~1970s



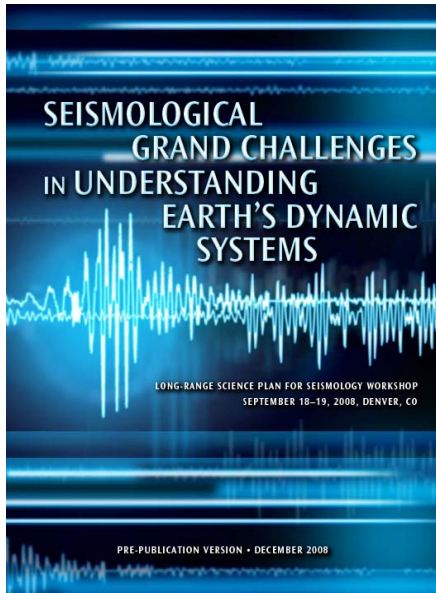
Ocean survey  
Paleo-geomagnetism  
Global seismology  
Seismo-tectonics  
Geomagnetic survey  
MT sounding

## Earth system and its dynamics

1990s~2010s



Active source  
Broadband seismology  
Seismic tomography  
GPS  
InSAR  
Remote sensing  
NCF



- **Grand Challenge 1. How Do Faults Slip?**
- **Grand Challenge 2. How Does the Near-Surface Environment Affect Natural Hazards and Resources?**
- **Grand Challenge 3. What is the Relationship Between Stress and Strain in the Lithosphere?**
- **Grand Challenge 4. How Do Processes in the Ocean and Atmosphere Interact With the Solid Earth?**
- **Grand Challenge 5. Where Are Water and Hydrocarbons Hidden Beneath the Surface?**
- **Grand Challenge 6. How Do Magmas Ascend and Erupt?**
- **Grand Challenge 7. What Is the Lithosphere-Asthenosphere Boundary?**
- **Grand Challenge 8. How Do Plate Boundary Systems Evolve?**
- **Grand Challenge 9. How Do Temperature and Composition Variations Control Mantle and Core Convection?**
- **Grand Challenge 10. How Are Earth's Internal Boundaries Affected by Dynamics?**



# IASPEI: Projects, Products, Platforms, Perspectives

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**Cape Town info**

When you visit Cape Town, bring your passport

Take this notice and make it your own. It's a checklist of things to do in Cape Town, including a list of things to see, do, eat, drink, and buy. It's a checklist of things to do in Cape Town, including a list of things to see, do, eat, drink, and buy.

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**IASPEI**  
General Assembly  
2009  
10-16 January 2009

*moribona wa letshaba*

Cape Town

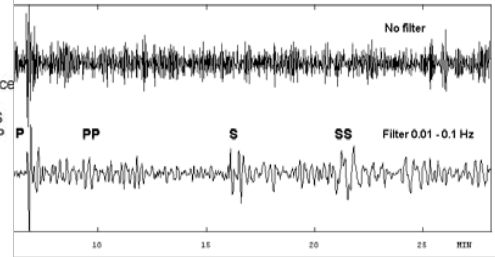
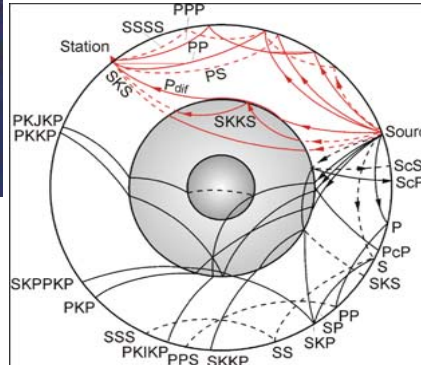
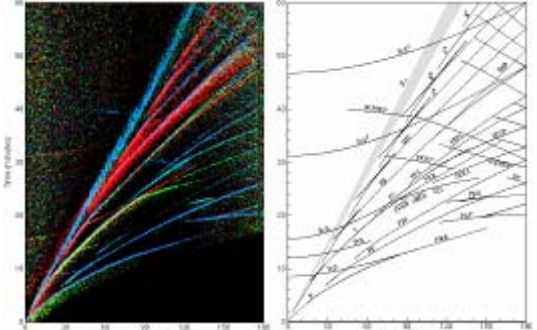
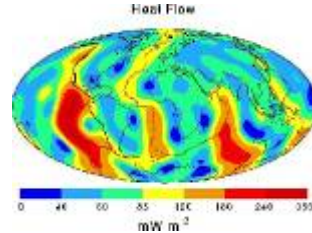
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**EARTHQUAKE & ENGINEERING SEISMOLOGY**

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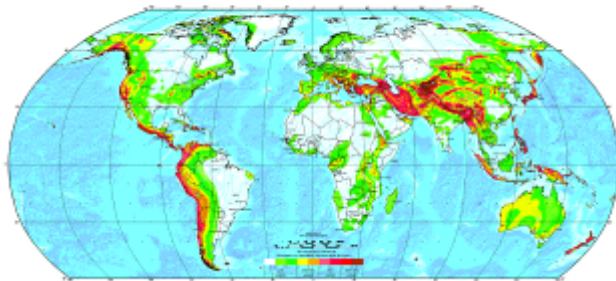
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**EARTHQUAKE**  
Hazard, Risk, and Strategy Ground Motion

**TECTONOPHYSICS**  
International Union of Pure and Applied Geophysics

**GLOBAL SEISMIC HAZARD MAP**



**PHYSICS OF THE EARTH AND PLANETARY INTERIORS**

IASPEI



IRIS SeismoArchives

Seismogram Archives of Significant Earthquakes of the World

**Introduction**

The following archives are being constructed under the auspices of the International Committee for Preservation of World and Historical Seismograms (ICPWSH) of the International Association of Seismology and Physics of the Earth's Interiors (IASPEI), in collaboration with the Data Management Center (DMC) of the Incorporated Research Institutions for Seismology (IRIS).

The main purpose of these online SeismoArchives is to preserve seismograms and related materials in computer data files so that they are readily accessible online as source materials for research. For the charge and mission of this Committee, please click: [ICPWSH](#).

Because no funding is yet available for constructing these SeismoArchives, we depend on volunteers and donors of data files and/or financial support for scanning analog seismograms that

**Earthquakes**  
[Earthquake Archives](#)  
[Special Projects](#)  
[Projects Archive](#)  
[Background Materials](#)  
[Information Archive](#)