



RI²sE

Commission on the Rapid
Interdisciplinary Investigation
of Significant Earthquakes

IASPEI Comm.RI²sE Business Meeting On-line

February 11, 2026

- 
- The background of the slide features a stylized globe with a network of white lines and dots, suggesting a global or interconnected theme. The globe is centered and occupies most of the background space.
- Welcome
 - Scope of RI²sE
 - Working promise of the Commission
 - The working groups – scientific issues
 - The 2027 IUGG Session ‘Recent significant earthquakes’
 - Website and *Newsletter* of RI²sE
 - Miscellaneous
 - Ending of the business meeting

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The IASPEI resolution related to RI²sE

Resolution 3

RESOLUTION ON THE ESTABLISHMENT OF A COMMISSION FOR RAPID INTERDISCIPLINARY INVESTIGATION OF SIGNIFICANT EARTHQUAKES

RECOGNISING the devastating impacts of significant earthquakes worldwide, such as the 2023 Türkiye-Syria earthquakes that resulted in nearly 60,000 fatalities, and other recent deadly events;

ACKNOWLEDGING the critical importance of rapid, coordinated, and interdisciplinary scientific response in the immediate aftermath of major earthquakes to capture perishable data and transient phenomena essential for understanding rupture dynamics, fault properties, and secondary hazards;

IASPEI Proposes to establish the IASPEI Commission on the Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²SE) as a platform to integrate expertise from earthquake and engineering seismology, geodesy, geology, geo-electromagnetics, geochemistry, hydrology, and social sciences.

- **Special thanks to**

- The IASPEI Bureau
- The IASPEI Resolutions Committee for the 2025 Assembly
- The DEEP-24 Conference Organizer
- The Asian Seismological Commission (ASC)
- The African Seismological Commission (AfSC)
- Organizer of the Haicheng Symposium
- International Seismological Centre (ISC)
- The China Earthquake Administration (CEA)
- The Belt and Road Earthquake Scientific Investigation Alliance

Members, Advisors and Secretaries of the Comm. RI²sE

- **Officers**

Chair: Li Ying

Mohamed El-Gabry

Prantik Mandal

Walter Mooney

- **Scientific Advisors**

Harsh Gupta

Wu Zhongliang

Li Li

Johannes Schweitzer

- **Secretary**

Tian Wenjun

Qi Pengju

Participants and guests of this business meeting, absentees

- **Participants**

Prof. Wu Zhongliang *Scientific Advisor, IASPEI Comm. RI²sE. IUGG Fellow. Past President, IASPEI. IEF, CEA*

Prof. Johannes Schweitzer *Scientific Advisor, IASPEI Comm. RI²sE. Secretary-General of IASPEI*

Prof. Mohamed El-Gabry *Officer, IASPEI Comm. RI²sE. President, AfSC. National Research Institute of Astronomy and Geophysics, Egypt*

Prof. Prantik Mandal *Officer, IASPEI Comm. RI²sE. National Geophysical Research Institute, Council of Scientific and Industrial Research, India*

Prof. Li Ying *Chair, IASPEI Comm. RI²sE. Deputy Director, IEF,CEA*

Participants and guests of this business meeting, absentees

- **Guests**

Ms. Zhu Fangfang

Deputy Director-General, Dept. of Science, Technology and International Cooperation, CEA

Mr. Zhao Ruihua

Director, International Cooperation Division, Dept. of Science, Technology and International Cooperation, CEA

Participants and guests of this business meeting, absentees

- **Other Participants**

Prof. Fang Lihua

Deputy Director, IEF,CEA

Dr. Hu Chaozhong

Director, Dept. of Management for Research and Development, IEF,CEA

Tian Wenjun

Secretary, IASPEI Comm. RI²sE. Officer, Dept. of Management for Research and Development, IEF,CEA

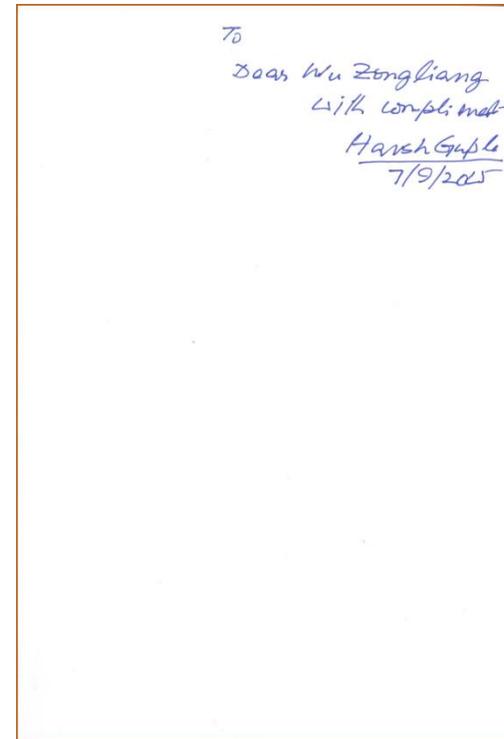
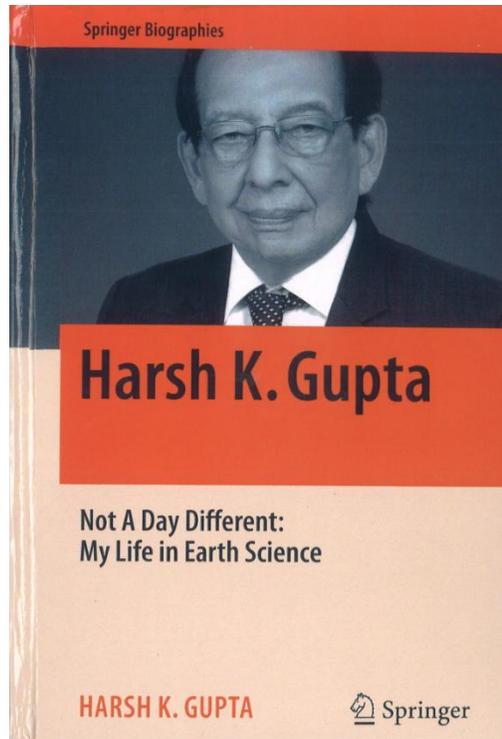
Qi Pengju

Secretary, IASPEI Comm. RI²sE. Officer, Dept. of Management for Research and Development, IEF,CEA

Participants and guests of this business meeting, absentees

- **Absentees**

Prof. Harsh Gupta



— — Long-standing friendly cooperation in seismological research

Participants and guests of this business meeting, absentees

- Absentees

Prof. Li Li

The present Feasibility Report has only a historical value, since in the IASPEI Assembly in Lisbon, the resolution of establishing the Commission on Rapid Interdisciplinary Investigation of Significant Earthquakes (Comm. RI²SE) had been formally adopted. However, such a historical document records a historic event in both the history of IASPEI and the history of Chinese seismology.

It has been well known that, comparing to observation, laboratory experiment, in-situ experiment, theoretical modeling, and numerical simulation, interdisciplinary investigation of earthquakes, rapidly organized after the occurrence of the seismic event, plays a unique role in understanding earthquakes. There are quite a few phenomenology of earthquakes, as seen in the field, shortly after the earthquake, has not been well included in the established system of the knowledge of earthquake science. To much extent, this is the underlying reason of the difficulty of earthquake forecast. Importantly, since now IASPEI has had a global platform to exchange and coordinate the interdisciplinary investigation of earthquakes.

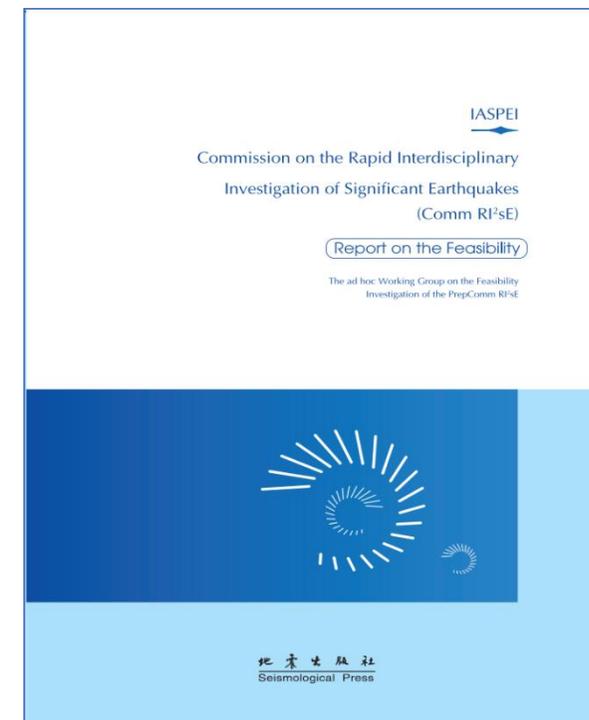
Generation by generation, Chinese scientists participated in and supported the activities of IASPEI. In 1996, after 8 years preparation, the Seismological Society of China (SSC) proposed the formation of the Asian Seismological Commission (ASC), a regional commission after the European Seismological Commission (ESC). Prof. Zhu Chuanzhen has witnessed and made almost all the progresses and was honored the ASC founding president award in 2008.

Chinese scientists have a long tradition of the scientific investigation of earthquakes. The successes in earthquake forecast study and practice, including the prediction of the 1975 Haicheng earthquake, was originated from the series scientific investigations after some destructive earthquakes since the 1966 Xingtai earthquake. The investigation has been, and has to be, interdisciplinary, since earthquake phenomenology never recognizes disciplinary boundaries. Since this century, China experienced several destructive earthquakes, the scientific investigation of these earthquakes contributed much to the development of Chinese earthquake science. Having the long experience in the scientific investigation of earthquakes, Chinese scientists proposed and discussed the feasibility of an IASPEI Commission, which is well recorded in the present Feasibility Report. The ad hoc Working Group on Feasibility Investigation, adopted by the IASPEI bureau, with Prof. Li Ying as the group leader, did a pretty good job.

Worth mentioning is that the leaders of the China Earthquake Administration (CEA) have an international perspective and deep insight in earthquake science. The founding of ASC was endorsed deterministically by Administrator Prof. Chen Zhangli (1996–2001), and the present commission on the scientific investigation of earthquakes was from the stimulating discussion with Administrator Prof. Wang Kun (2023–present).

As the past president and vice president of IASPEI, both from China, we sincerely congratulate the publication of this Feasibility Report, and hope that the Commission, under the leadership of Prof. Li Ying, would be keeping playing a contributive role in both IASPEI and earthquake science in China. The abbreviation of the commission, "Comm. RI²SE", sounds like "comrades", implying that the functioning of the Commission need the international wisdom and joint action from all of us.

Wu Zhongliang
Past president of IASPEI (2007–2011)
IUGG Fellow (2015–)
Li Li
Vice president of IASPEI (2023–2027)



——Contributed to the preface of the *Feasibility Report of Comm. RI²sE*

Participants and guests of this business meeting, absentees

- Absentees

Prof. Walter Mooney

Re: [EXTERNAL] Invitation for the online business meeting of RI²SE 📧 🕒 📅 Create Meeting 01/30/2026

From : **Re: [EXTERNAL] Re: RI2SE Newsletter January 2026** 📧 🕒 📅 Create Meeting 02/02/2026 00:29:4

To :

From : "Mooney, Walter D" <mooney@usgs.gov>

To : "Prantik Mandal" <prantikmandal62@gmail.com> "齐鹏举" <qipj@ief.ac.cn>

Cc : "harshg123@gmail.com" <harshg123@gmail.com> "lilygrace@cea-igp.ac.cn" <lilygrace@cea-igp.ac.cn>

"liying@ief.ac.cn" <liying@ief.ac.cn> "wzl@ief.ac.cn" <wzl@ief.ac.cn> "elgabry@nriag.sci.eg" <elgabry@nriag.sci.eg>

.. [↓and 5 more]

Dear Colleagues,

I second the recommendations of Dr. Prantik Mandal regarding the newsletter.

Due to the large volume of material everyone reads these days, I agree that maps, Figure and photos would attract attention to this RI2SE newsletter. I will be pleased to offer such images.

Congratulaitons on your success!

Sincerely yours,
Walter Mooney, USGS

— — Offered valuable suggestions on the *Newsletter*

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Commission on the Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²sE)

- **Scope**

Recognizing the devastating impacts of significant earthquakes worldwide, such as the 2023 Türkiye-Syria earthquakes that resulted in nearly 60,000 fatalities, and other recent deadly events; and acknowledging the critical importance of rapid, coordinated, and interdisciplinary scientific response in the immediate aftermath of major earthquakes to capture perishable data and transient/essential phenomena; the Commission on the Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²SE) provides a platform for coordinated international and interdisciplinary scientific responses. By leveraging expertise across seismology, geodesy, geophysics, geochemistry, geology, and allied fields, and fostering cooperation with other IASPEI commissions, RI²SE facilitates rapid investigation of possible earthquake precursors, rupture dynamics, fault zone properties, and secondary hazards when transient phenomena are most pronounced. The coordinated collection of multi-disciplinary datasets strengthens models of earthquake source physics, wave propagation, and crustal deformation, thereby advancing the integrated understanding of earthquake generation and its cascading societal impacts. The RI²SE commission helps institutionalize such timely investigations within the IASPEI framework, and focuses on but is not limited to the following aspects:

Commission on the Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²sE)

- **Scope**

- Seismogenic faults and surface rupture of significant earthquakes.
- Measurement and analysis of geophysical and geochemical anomalies before and after the mainshock.
- New technique applications to earthquake investigations.
- Fault rupture complexity, fault interaction, and triggering mechanisms.
- Physical mechanisms of earthquake foci and crustal deformation models.
- Strong ground motion, earthquake nucleation, seismic generation, and structural geophysics.
- Rupture dynamics, fault zone characteristics, and secondary hazards such as landslides, liquefaction, and induced floods.
- Development of innovative techniques for earthquake investigation.

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IASPEI Statutes and By-Laws

X. Commissions and Working Groups

1. The Association, on the recommendation of the Executive Committee, may establish Commissions to study scientific topics and to stimulate and coordinate research on specific topics or research related to a specific region.
2. The Association may also establish joint Commissions or Working Groups with other organizations.
3. Commission chairs (or co-chairs) will be nominated by the President.
4. Working Groups may be established or disbanded by the Commission chair, who will appoint the chair of the Working Group.
5. Commission and Working Group members will be invited to participate by the respective chair.
6. Commission or Working Group chairs shall not hold the same office for more than two periods.
7. Commission chairs will provide annual reports to the Secretary General (including reports on their Working Groups) prior to the Annual Bureau Meeting.
8. A Commission may be disbanded by decision of the Executive Committee if in the view of that Committee the Commission is no longer needed.

Working promises of our Commission

- Sending sympathy message to earthquake countries – by chairman, authorized by the Association secretary general
- Including and dismissing commission members – decided by chairman, without objection from commission members
- Establishing and dissolving working groups – proposed by commission members or advisors, decided and announced by chairman
- Proposing sessions and training courses – decided by chairman, with assistance of secretaries, seeking suggestion from commission members and advisors
- Website maintenance – by secretaries
- Newsletters – by secretaries, discussed within the commission before sending
- Annual report – drafted by secretaries, discussed within the commission

Discussion I



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Working Group on Seismological Contact Database

- After the devastating Haiti earthquake in 2010, emergency response of the IASPEI became an important and meanwhile a challenging issue. One of the urgent needs for such emergency response is an address book of key seismologists working in related countries/regions so that after the earthquake they can be contacted in the first time to express the sympathy of the international seismological community, while exploring the urgent needs of the local people and the countermeasures of rescue and aid, and reconstruction, as well as the scientific investigation of the earthquake. The International Seismological Center (ISC), in cooperation with IASPEI, established the seismological contact database which tries to cover the countries/regions both within and out of the framework of the IASPEI. Since that time, situation has kept changing, which calls for the continuous upgrading of the database. The Working Group, with RI²sE as its goal, works on the upgrading of the database, based on the evaluation of the database associated with the investigation of recent earthquakes. The Working Group is cooperating with the International Seismological Center (ISC).

Working Group on Visual Macro-seismology

- In recent years more and more civilian monitoring videos have been deployed all over the world. Such videos happened to record the ground motion and destruction caused by earthquakes and related phenomena, and provided seismological studies, earthquake engineering studies, and emergency countermeasure studies with visual information, which had been shown by recent earthquakes such as the Myanmar earthquake in 2025 in which the videos contained the information of the rupture process, the Tohoku Japan earthquake in 2011 in which the videos contained the information of the tsunami, and the Wenchuan earthquake in 2008 in which the videos of escape panic contains the information of emergency evacuation dynamics. The videos are generally shared online after the earthquake, and disappears after the earthquake within some time. In the interdisciplinary investigation of earthquakes, collecting and analyzing such videos may play a unique role in studying earthquakes and associated disasters. Processing and analyzing such visual materials needs the cooperation between earthquake science and information science. The Working Group aims at the establishment of a global database and promote the analysis of such visual materials, while discussing with caution the ethical and legislative problems related.

Working Group on Unified Catalogue of Significant Earthquakes

- Significant earthquakes, including both earthquakes with large magnitudes and those with significant impact of economy and society, and special research interests, are the main target of working of the Commission. These earthquakes need a unified catalogue so that systematic analysis could be possible. The Working Group, associated with the commission on RI2sE, will be working on a unified catalogue of significant earthquakes. Regional endeavor of establishing and revising such catalogues have been conducted in different seismological agencies such as the China Earthquake Administration (CEA) and the United States Geological Survey (USGS). The comparison and unification of the regional catalogues will be the first step.

Seek inputs from the leader and members of each Working Group

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2025 IASPEI Session 13

Recent Devastating Earthquakes and rapid response after devastating events

Convener: Li Li (China)

Co-convener(s): Thorne Lay (USA), Johannes Schweitzer (Norway)

Since the IUGG General Assembly in July 2023, large, damaging earthquakes continue to strike globally, producing loss of life and destruction in many regions around the world. About 12 earthquakes with $M_w \geq 7$ (NEIC/GCMT) have occurred globally as of September 10, 2024. These include the January 2024 M_w 7.5 Noto earthquake in Honshu, which occurred in the shallow crust above an intense long-duration seismic swarm, and the April 2024 M_w 7.4 Hualien earthquake, which is the latest major event in the collisional zone along the eastern coast of Taiwan. Major earthquakes have also struck the Philippines and other subduction zones in the western Pacific and along South America. Earthquake science is essential for revealing the nature of earthquake generation and for extracting lessons from these events to help society reduce the impacts of future events. Seismologists, Geodesists, Geologists and Tsunami experts have been cooperating to characterize the full earthquake cycle and to image the rupture process of earthquakes with steadily improving resolution. This session welcomes reports on all studies of recent large and/or devastating earthquakes with geodetic/seismological/tsunami techniques, including investigations of source process, slip distribution, damage, pre/co/post-seismic deformation, geological/geophysical structure around the source faults, tectonic implications, and other associated phenomena.

Session proposal for 2027 IUGG

Session: Recent Significant Earthquakes

Convener: Li Ying (China)

Co-convener(s): Prantik Mandal (India), Mohamed Elgabry (Egypt), Walter Mooney (USA)

Fang Lihua (China)

Beyond observation, laboratory experiments, in-situ experiments, theoretical modeling, and numerical simulation, scientific investigation of earthquakes is one of the important approaches to understanding earthquakes and related disasters. This session focuses on the generation mechanisms, tectonic origins, and hazard assessments of recent significant earthquakes, as well as related scientific investigations. Main topics include, but are not limited to, earthquake seismogenesis and seismic disaster risk reduction, multidisciplinary synergistic research, international cooperation, the application of emerging technologies, scientific guidelines and standards, as well as education and training in earthquake disaster investigation.

- [Submitting the Session proposal to Prof. Johannes Schweitzer ASAP.](#)

Discussion II

The background features a stylized globe with a network overlay. The globe is rendered in light blue and green tones, with a grid of lines and dots representing a global network or data flow. The text "Discussion II" is centered in the upper half of the image in a bold, black, sans-serif font.

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Discussion with Asian Seismological Commission (ASC)

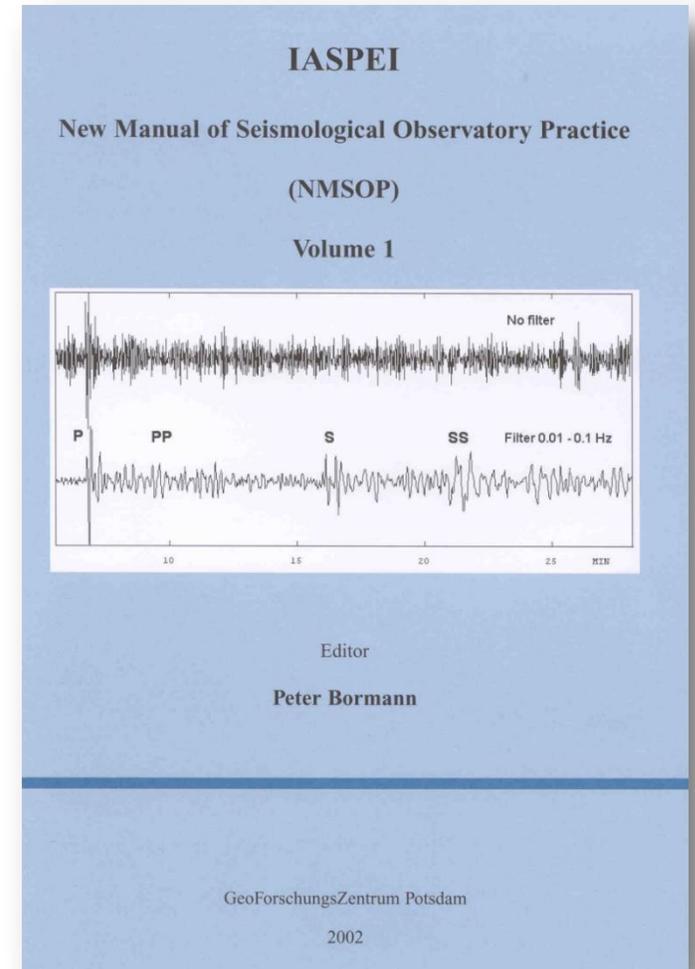
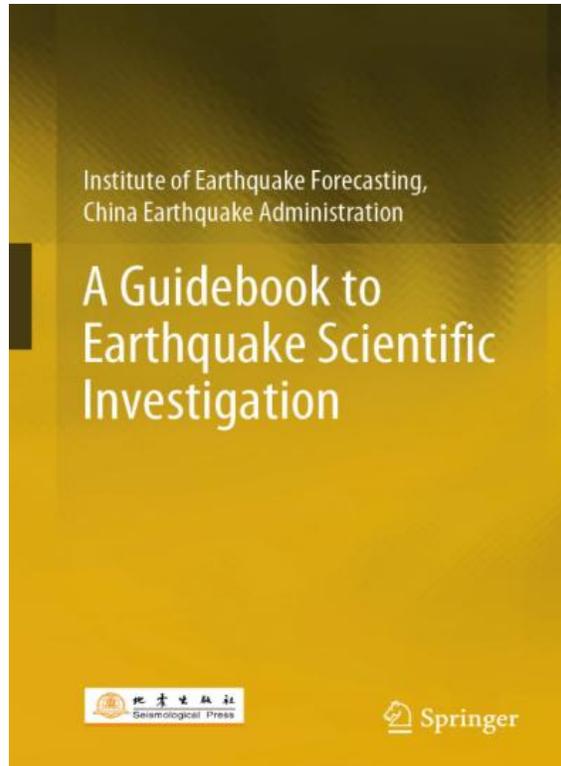
- (Joint) Business meeting in Tashkent
- The Asia version of the updated seismological contact
- Pre-Assembly Training Course on RI²sE 2028

Discussion with Africa Seismological Commission (AfSC)

- The Africa version of the updated seismological contact
- Pre-Assembly Training Course on RI²sE 2028

Discussion with Commission on Seismological Observation and Interpretation (CoSOI)

- Updating the *RI²sE Guideline*
- Contributing to the *New Manual for Seismological Observatory Practice*



Next step of the RI²sE

- Participate the Asian Seismological Commission (ASC) General Assembly, in Uzbekistan in April 2026.

The image shows a website banner for the 16th General Assembly of the Asian Seismological Commission (ASC). The background features a large, muscular statue of a man, likely a hero or deity, set against a blue sky and green trees. The banner includes a navigation menu at the top with links: About, Committees, Schedule, Scopes, Abstract Submission, Registration, Accommodation, Venue, and Conveners. A red button labeled 'Sponsorship & Exhibition' is positioned in the top right. A blue button labeled 'Welcome!' is in the top left. Below the navigation, there is a 'General Information' link. The main text on the banner reads '16th GENERAL ASSEMBLY' in large white letters, followed by 'ASIAN SEISMOLOGICAL COMMISSION' in a white box. To the right, it specifies 'April 25-30' and '2026 Tashkent, Uzbekistan'. At the bottom, there are four logos: the ASC logo (a stylized 'A'), the IUGG logo (International Union of Geodesy and Geophysics), the IASPEI logo (International Association of Seismological Sciences), and the ASC logo (a circular emblem with 'ASC' inside).

Next step of the RI²sE

- Host International Conference on Earthquake Scientific Investigation, in July 2026 in Beijing or Tangshan.



International Conference on Earthquake Engineering Commemorating the 50th Anniversary of the Great Tangshan Earthquake

————— Late July, 2026 Tangshan, China —————

Hosted by Institute of Engineering Mechanics, China Earthquake Administration

Next step of the RI²sE

- As a co-host will organize the International Contest on Aftershock Forecasting, from March to November 2026.

余震预测技术国际大赛
International Contest on Aftershock Forecasting

比赛时间
2026年3月-11月
from March to November 2026

指导单位 Guiding Units
中国地震局科技与国际合作司
Department of Science, Technology and International Cooperation, CEA
中国地震局监测预报司
Department of Earthquake Monitoring and Forecasting, CEA
上海人工智能实验室

主办单位 Hosts
中国地震局地震预测研究所
Institute of Earthquake Forecasting (IEF), China Earthquake Administration (CEA)
中国地震台网中心
China Earthquake Networks Center
国际地震学与地球内部物理学协会国际地震科考委员会
IASPEI Commission on the Rapid Interdisciplinary Investigation of Significant Earth-quakes (RI²sE)
中国灾害防御协会防灾减灾人工智能分会
Artificial Intelligence Branch for Disaster Prevention and Mitigation, China Association for Disaster Prevention
中国地震学会地震人工智能专业委员会
Commission on Seismic Artificial Intelligence, Seismological Society of China
地震可预测性研究国际合作研究平台 (CSEP)
Collaboratory for the Study of Earthquake Predictability

协办单位 Co-Organizers:
阿里云技术有限公司
Alibaba Cloud Computing Co., Ltd.
深圳面元智能科技有限公司 (SmartSolo Inc.)

报名链接 (Access Link):
<https://tianchi.aliyun.com/competition/entrance/532460>



Scan the QR code to access the link

<https://tianchi.aliyun.com/competition/entrance/532460>

Discussion III

The background features a stylized globe with a network of white lines and nodes overlaid on it. The globe is rendered in a light blue and green color palette, with a grid of small squares visible on its surface. The overall aesthetic is clean and modern, suggesting a focus on technology or global communication.

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Thanks for your support!