

**16th General Assembly of**

**Asian Seismological Commission**

**April 25-30, 2026**

**Tashkent, Uzbekistan**

***Call for Conveners***

April 25 Registration / Pre-Workshops Trainings, pre-workshops

April 26, Sunday/ Opening, at afternoon/ Ice break+ Business meeting

April 27 Monday April 28

April 29 Wednesday morning / afternoon: Memorial Day & Closing

The preliminary sessions and their scopes are listed as following.

If you are interested in the topics and will come to be a convener, please send emails to:

**Ms. Li Li, Secretary General of ASC,** **lilygarce@cea-igp.ac.cn**

***Before Augst 31, 2025.***

**New sessions, pre-workshops, short training courses related to ASC are also welcome!!!**

# Destructive Earthquakes: Lessons from Historical Events

***Scope:***This session focuses on analyzing major historical earthquakes to extract lessons for hazard mitigation. Topics include case studies of past events, fault rupture processes, ground motion characteristics, socio-economic impacts, and long-term recovery strategies. Contributions combining geological evidence with modern seismological analysis are encouraged.

# Advances in Seismological Monitoring: Networks, Instruments, and Multi-disciplinary Techniques

***Scope:***Covers innovations in seismic and geodetic monitoring, including dense array deployments, DAS (Distributed Acoustic Sensing), multi-parameter networks (seismic, GNSS, InSAR), and emerging sensor technologies. Discussions on data integration, real-time processing, and interdisciplinary approaches (e.g., seismology-geodesy collaboration) are welcome.

# Imaging Earth's Structure: From Shallow Subsurface to Deep Crust

***Scope:*** Explores methods for high-resolution imaging of Earth’s structure at all scales, including ambient noise tomography, full-waveform inversion, and active-source seismology. Applications to seismic hazard assessment, resource exploration, and tectonic studies are highlighted.

# Tectonics, Geodynamics, and Volcanic Processes: Seismic Perspectives

***Scope:*** Investigates seismic signatures of tectonic and volcanic activity, including subduction dynamics, crustal deformation, magma migration, and eruption precursors. Studies combining seismology with geodynamic modeling or other geophysical datasets are particularly encouraged.

# Induced Seismicity: From Energy Extraction to Urban Underground Activities

***Scope:*** Examines human-induced earthquakes linked to oil/gas extraction, geothermal operations, reservoir impoundment, mining, and urban tunneling. Topics include triggering mechanisms, risk management, regulatory frameworks, and mitigation strategies.

# Machine Learning and Big Data in Seismology

***Scope:*** Focuses on AI/ML applications in seismology, such as earthquake detection, phase picking, early warning, and ground-motion prediction. Also covers challenges in handling large datasets, interpretability of ML models, and hybrid physics-AI approaches.

# Earthquake and Tsunami Early Warning Systems

***Scope:***Addresses advancements in real-time warning systems, including sensor networks, algorithms for rapid source characterization, and public alert dissemination. Case studies of system performance during recent events and strategies for false-alarm reduction are discussed.

# Tsunami Science: Generation, Propagation, and Coastal Impact

***Scope:*** Studies on tsunami source mechanisms (earthquake, landslide, volcanic), numerical modeling, coastal amplification, and inundation mapping. Contributions integrating seismic, seafloor, and hydrodynamic data are encouraged.

# Space-Based Geodetic Technologies for Deformation Monitoring

***Scope:***Highlights GNSS, InSAR, and LiDAR applications for measuring crustal deformation, fault slip, and volcanic inflation. Topics include time-series analysis, multi-sensor fusion, and role in hazard assessment.

# Seismic Hazard and Risk Assessment

***Scope:***Covers probabilistic/neo-deterministic hazard models, ground-motion prediction equations (GMPEs), and risk quantification for urban areas. Discussions on uncertainty treatment and scenario-based approaches are welcome.

# Earthquake Engineering and Infrastructure Resilience

***Scope:***Focuses on seismic design codes, retrofitting strategies, soil-structure interaction, and performance-based engineering. Case studies of infrastructure response to recent earthquakes are encouraged.

# Earthquake Disaster Risk Reduction

***Scope:***Examines preparedness, response, recovery, and resilience-building strategies. Topics include community engagement, policy frameworks, post-disaster assessments, and lessons from global initiatives like UNDRR.

# Science Communication and Public Engagement

***Scope:***Explores effective ways to communicate seismic risks and science to policymakers, media, and the public. Includes citizen science, educational tools, and strategies for combating misinformation.

# Interplate vs. Intraplate Seismicity

***Scope:*** Compares mechanisms, stress regimes, and hazard implications of interplate (e.g., subduction zones) and intraplate (e.g., stable continents) earthquakes. Paleoseismology and fault interaction studies are relevant.

# Environmental Seismology: Natural and Anthropogenic Signals

***Scope:***Investigates seismic signals from non-tectonic sources (glaciers, landslides, rivers) and their use in environmental monitoring. Also covers discrimination between natural and human-induced vibrations.

# General Seismology

***Scope:***A broad session for studies not covered elsewhere, including novel methodologies, instrument developments, and regional seismicity reports.

# Regional and Local Strong Ground Motion Models

***Scope:*** Focuses on developing and validating region-specific ground-motion models (GMMs) for seismic hazard applications. Topics include site effects, basin amplification, and hybrid empirical approaches.

# Engineering Seismology Case Studies

***Scope:*** Presents detailed analyses of ground motions and structural damage from recent earthquakes. Emphasis on data-driven insights for improving engineering practices.

# From historical earthquakes to internet macro-seismology

***Scope:***Bridges traditional macroseismic data (intensity reports) with modern crowdsourcing (e.g., social media, smartphone apps). Discussions on data quality, automation, and applications for rapid impact assessment.