

Understanding Key Parameters for Engineered Geothermal Development: Perspectives from Geophysics, Geochemistry, and Geology



🕒 Time: 2026/02/23 (Mon.) 09:30-16:30

📍 Location: 2nd floor Lecture Hall, Institute of Earth Sciences, Academia Sinica

09:30-10:00

Register

10:00-10:10

Opening (Sun-Lin Chung, Director of IES)

Host: Li-Wei Kuo, Department of Earth Sciences, National Central University

10:10-10:40

Experimental studies on the seismic cycle in the presence of hot and pressurized fluids

Giulio Di Toro
Department of Geosciences,
University of Padova

10:40-11:10

Hydrothermal frictional properties of materials in subduction zones at low to high velocities: technical development and recent progress

Hanaya Okuda
Japan Agency for Marine-
Earth Science and Technology

11:10-11:40

Reconstructing geothermal geological models by combining geophysical, geochemical and geological studies in Tatun volcanoes area, Northern Taiwan

Jian-Cheng Lee
Institute of Earth Sciences,
Academia Sinica

11:40-12:00

Fault strength recovery of experimental sandstone fault gouge under superhot geothermal conditions

Chien-Cheng Hung
Institute of Earth Sciences,
Academia Sinica

12:00-13:30

Lunch

Host: Chien-Cheng Hung, Institute of Earth Sciences, Academia Sinica

13:30-14:00

Cohesion development in faults cross-cutting sedimentary sequences: insight from experiments and field observations

André Niemeijer
Department of Earth Sciences,
University of Utrecht

14:00-14:30

From back-arc rifting to geothermal exploration in Ilan: Insights from a large-scale dense seismic array experiment

Hsin-Hua Huang
Institute of Earth Sciences,
Academia Sinica

14:30-14:50

Frictional behavior of the Chungling Formation and its healing under geothermal conditions and implications for induced seismicity

Fang-Yu Tsai
Department of Earth Sciences,
National Central University

14:50-15:30

Break

15:30-15:50

Stress state of the western Ilan plain, Taiwan

En-Chao Yeh
Department of Earth Sciences,
National Taiwan Normal University

15:50-16:10

Redox-controlled fluid evolution in metapelitic host rocks

Yi-Chia Lu
Institute of Applied Geology,
National Central University

16:10-16:30

Using multiple low-temperature thermochronometers to constrain the evolution history of regional heat flow

Shao-Yi Huang
Science and Technology Research
Institute for DE-Carbonization,
National Taiwan University

