

# ADVANCES IN EARTHQUAKE OBSERVATORY WORKSHOP

September 9 - 10, 2024

2F Lecture Hall, Institute of Earth Sciences, Academia Sinica

## Oral Presentation Rule:

- Invited Speaker: 25 minutes per person + 5 minutes for Q&A (A total of 30 minutes, including transition.)
- Normal: 15 minutes per person + 5 minutes for Q&A (A total of 20 minutes, including transition.)

## Day 1: September 9 (Monday)

Time	Title / Speaker
10:30 - 10:35	Opening ➔ <b>Kuo-Fong Ma</b> <i>Institute of Earth Sciences, Academia Sinica</i>
<b>Session A</b>	
Chair: Chung-Han Chan ( <i>E-DREaM, National Central University</i> )	
10:35 - 11:05	Earthquake preparation processes on different spatial scales: New results from rock deformation experiments in the lab and field case studies from Türkiye ➔ <b>Marco Bohnhoff</b> <i>Experimental and Borehole Seismology at Free University Berlin</i>
11:05 - 11:25	MiDAS Observatory: DAS & DTS ➔ <b>Kuo-Fong Ma</b> <i>Institute of Earth Sciences, Academia Sinica</i>
11:25 - 11:45	10-m-deep earthquake swarms (Mw -2) near the Milun fault in Hualien, Taiwan, detected by the MiDAS seismic monitoring system ➔ <b>Yen-Yu Lin</b> <i>Department of Earth Sciences, National Central University</i>
11:45 - 12:00	Discussion
12:00 - 13:30	Lunch
<b>Session B</b>	
Chair: Justin Yen-Ting Ko ( <i>Institute of Oceanography, National Taiwan University</i> )	
13:30 - 14:00	High-resolution subsurface imaging using fiber-seismic tomography for volcanoes and sedimentary basins ➔ <b>Ettore Biondi</b> <i>Seismological Lab, Caltech</i>
14:00 - 14:20	High-resolution monitoring of earthquake and landslide slip zone processes with downhole fiber-optic sensing ➔ <b>Hsin-Hua Huang</b> <i>Institute of Earth Sciences, Academia Sinica</i>
14:20 - 14:50	Data needed to constrain non-ergodic GMMs ➔ <b>Norman Abrahamson</b> <i>Department of Civil and Environmental Engineering, UC Berkeley</i>
14:50 - 15:10	Toward near-real time shakemap estimation using GMM with consideration of rupture directivity effect for an EEW system ➔ <b>Chun-Hsiang Kuo</b> <i>Department of Earth Sciences, National Central University</i>
15:10 - 15:40	Break



Contact us:

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## Day 1: September 9 (Monday)

Time	Title / Speaker
Session C	
Chair: Chun-Hsiang Kuo ( <i>Department of Earth Sciences, National Central University</i> )	
15:40 - 16:00	Rate-dependent “quakes” in steadily sheared granular particles -- a naive model by physicists ➔ <b>Jih-Chiang Tsai</b> <i>Institute of Physics, Academia Sinica</i>
16:00 - 16:20	Fault-Zone characteristics of the Milun Fault of MiDAS borehole cores, Taiwan, and their implications ➔ <b>Li-Wei Kuo</b> <i>Department of Earth Sciences, National Central University</i>
16:20 - 16:40	Earthquake rupture speed dependence on normal stress in laboratory experiments ➔ <b>Chun-Yu Ke</b> <i>Department of Civil Engineering, National Taiwan University</i>
16:40 - 17:10	Discussion
17:30	Dinner

## Day 2: September 10 (Tuesday)

Time	Title / Speaker
Session D	
Chair: Hsin-Hua Huang ( <i>Institute of Earth Sciences, Academia Sinica</i> )	
09:00 - 09:30	Real-time crustal deformation observation system and monitoring of plate boundary slip along the Nankai Trough ➔ <b>Takane Hori</b> <i>Japan Agency for Marine-Earth Science and Technology (JAMSTEC)</i>
09:30 - 09:50	Earthquake cycle deformation and hazard mitigation with ocean-bottom instrumentation in Taiwan ➔ <b>Ya-Ju Hsu</b> <i>Institute of Earth Sciences, Academia Sinica</i>
09:50 - 10:20	Offshore Subduction Zone Observatories: NanTroSEIZE Experience and Cascadia Goals ➔ <b>Harold Tobin</b> <i>Department of Earth and Space Sciences, University of Washington</i>
10:20 - 11:00	Break
Chair: Hsin-Hua Huang ( <i>Institute of Earth Sciences, Academia Sinica</i> ) Yen-Yu Lin ( <i>Department of Earth Sciences, National Central University</i> )	
11:00 - 12:00	Scientific Interaction
12:00 - 13:20	Lunch



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