

Shaking Boundaries: Environmental Seismology Across Disciplines

Dienstag, 9. Juni 2026 - Donnerstag, 11. Juni 2026

GEOMAR - Standort Ostufer / GEOMAR - East Shore

Wissenschaftliches Programm

Conference Program

Session 1: The Cryosphere in Motion (keynote speaker: Dominik Gräff)

This session focuses on seismic approaches to studying the dynamics of snow, ice, and permafrost environments. Topics include monitoring glacier flow and calving, detecting subglacial hydrological activity, quantifying ice mass loss. We invite contributions that use seismic and acoustic methods to reveal the processes shaping high-mountain and polar regions in a warming climate.

Session 2: The Hydrosphere in Motion (keynote speaker: Victor Tsai)

This session explores how seismology can illuminate processes within rivers, lakes, and marine environments. Contributions may address the seismic detection of sediment transport, hydrological forcing of geomorphic change, riverbed dynamics. Emphasis is placed on using seismic observations to link hydrological variability, environmental change, and surface process evolution.

Session 3: Seismic Insights into Mass Movements (keynote speaker: Malgorzata Chmiel)

This session focuses on the use of seismology to characterize and monitor gravitational mass movements. Presentations and posters will cover the entire hazard chain, from the slow fracturing of rock cliffs to the rapid dynamics of debris flows and deep-seated rockslides.

Session 4: Technical expertise: Technicians, Instruments, and Code (keynote speaker: Céleste Broucke)

Science doesn't happen without the people who build and run the tools needed for research projects. This session is dedicated to the technical backbone of environmental seismology. We invite presentations and posters from technicians, engineers, and software developers on instrument deployment, data management, and the creation of new open-source tools. This is a forum for sharing best practices, revealing the "how-to" behind the data, and discussing the future of our field's instrumentation.

Session 5: Modeling, Methods, and Future Frontiers (keynote speaker: Josefine Umlauf)

Looking beyond direct observation, this session explores the models and advanced techniques that turn seismic data into predictive insights. We will cover numerical simulations of complex processes and the application of novel seismic methods to understand large-scale hazards.

