Session 31

Seismic site characterization onshore and offshore by single-station and array methods

Conveners:
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The use of ambient seismic vibrations has significantly increased over the last decades. Controlled-source experiments are also widely used as complimentary measurements. Taking advantage of the large wavelength range of these signals, the subsurface structure can be investigated in a broad depth range from few meters to several hundreds of meters. The analysis of the subsurface structure of the Earth is a necessary step towards the mitigation of natural hazards such as earthquakes, landslides, instable rock slopes, or also potential non-linear site effects such as liquefaction. However, the approach is not limited to the solid surface, but can also be applied in marine or lake environments.

The session focuses on single-station and/or array experiments using ambient seismic vibrations. The methods may range from single-station to array or interferometry approaches, using any type of sensors, including newer sensor types, e.g., rotational sensors or distributed acoustic sensing. Contributions modeling the wave-field using the diffuse-field approach are also welcome, as well as presentations dealing with the inversion of any of the aforementioned data to retrieve the underground structure on any depth-scale range.