



## Session 28

### Seismic interferometry and ambient noise: Theory, sources, imaging and monitoring

Conveners:

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Passive seismic records carry information about the sources of the ambient seismic wavefield, the subsurface structure of Earth and its time-varying properties. The dominant imaging and monitoring strategies today rely on these information, particularly at crustal or smaller scale, and are driven by theoretical and methodological developments, such as seismic interferometry. Earthquakes represent another form of passive sources. Utilizing their wavefields, we can gather comprehensive insights about the Earth across various scales employing interferometric methods like cross-correlation of P and S-coda waves.

This session offers a broad space for discussing recent advances in ambient noise seismology and seismic interferometry in general, from theoretical and methodological developments and investigations of passive sources to novel imaging and monitoring applications. Topics may include, but are not limited to, strategies to better incorporate the complex distribution of ambient noise sources in seismic interferometry, locating and identifying sources, models of seismic noise generation, advances and applications of seismic imaging in complex media, extracting weak earthquake phases using cross-correlation techniques, monitoring environmental fluctuations, for example groundwater level, permafrost, or seasonal variations, as well as monitoring natural hazards, like landslides and volcanic activity. We also encourage studies using opportune noise sources, such as urban seismic noise sources or ambient noise body waves from localized storms.

