



## Session 23

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### Attenuation: from engineering to seismic imaging

**Conveners:**

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Accurate estimates of seismic wave attenuation play an important role in the studies of seismic engineering and seismology. Investigating the attenuation and elastic structure in the lithosphere using novel algorithms allows for more accurate imaging of buried geological structures, including the depth extent of major geological faults, volcanoes or magmatic intrusions. High-resolution imaging of Earth's structure is key to better seismic risk assessment and mitigation of economic and societal damages after an earthquake through better preparedness, better earthquake engineering design fit for the ground motion characteristics. At the same time, it will improve our understanding of the underlying tectonic cause for the asymmetric wave attenuation away from the source area. Furthermore, investigating ground motion prediction equations (GMPEs) and simulating significant earthquakes can enhance the accuracy of wave propagation numerical modeling and highlight patterns of seismic attenuation for various geological structures.

This session will include invited and contributed presentations focusing on methodological advancements, theoretical aspects and applications. We invite contributions that include new observations, modeling and other connected studies. We are looking for contributions from various fields to promote a multi-disciplinary discussion.