



Session 35

Advances in high-frequency attenuation and characterising ground motion on rock

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In this session, we would like to bring together the seismological, geophysical, geotechnical and engineering communities to discuss ground motion attenuation, focusing on high frequencies and their significant impact on engineering design. Understanding and modelling ground motion at high frequencies is becoming an important issue in seismic hazard assessment and site-specific hazard, especially for critical infrastructures.

We welcome contributions related (but not limited) to modelling, empirical analysis and simulations that may shed light on the nature of high-frequency attenuation of earthquake ground motion, uncertainties and trade-offs, the relative contributions of source/path/site components, and impact on structures. Topics of interest include parameters such as crustal attenuation, quality factor, f_{max} and $kappa$, relative effects of damping and scattering, frequency dependence of damping in the soil dynamics sense, weathering and impedance effects, and particular challenges of rock-site characterisation.

Aside from academic and theoretical advances, this session also very much welcomes results and experiences from industry, namely recent projects that dealt with issues of high-frequency attenuation and its impact on hard-rock adjustments and hazard assessment, particularly for moderate-to-low seismicity regions.