



Session 37

Characterization of urban built environment for seismic risk reduction

Conveners:

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For seismic risk assessment, it is of utmost importance to characterize urban areas in their entirety. Since the subsoil is well defined by microzonation studies, it is time to draw attention to the built environment and its interactions with the soil.

This session aims to bring out the discussion and exchange on the characterization of the built environment, the urban subsoil and their interactions. We welcome contributions on all aspects related to the behavior of urban soils, the structural characteristics of the built environment, and the effects of soil-structure/city interaction from the perspective of damage assessment, vulnerability, seismic exposure, and risk assessment/reduction. Empirical data acquired on urban soils and buildings and numerical modeling can mutually contribute to the better characterization of soil-structure interaction during earthquakes. For this reason, we particularly encourage contributions that emphasize the role of empirical measurements (e.g. earthquake and noise recordings) on buildings and soil. We also wish to focus attention on contributions that present new networks/arrays (which may include both classical seismological networks and other technologies, e.g.

Distributed Acoustic Sensing) and technologies (remote sensing) that compile new datasets and public databases of data on buildings and soils, and discuss new potential applications.

Submissions can include both general perspectives and case studies that help identify current gaps and potential developments in the field. Novel approaches are highly appreciated and have the chance to be shared and made visible in the seismological community.

