[JJ] Evening Poster | H (Human Geosciences) | H-TT Technology & Techniques

[H-TT19]New Developments in Shallow Geophysics

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The session of shallow geophysics calls many research contributions on geophysical exploration techniques for the near surface. Our target depth is strictly restricted in the depth zone from 5 cm to 30 m (or from 2 in to 100 ft) below the surface of the ground. It may be the closest unknown territory for human society and advanced societies cannot have controlled yet to avoid disasters caused by dynamics in the shallow near surface. Peoples require techniques to manage levee, landslide and earth constructions also knowledge to control groundwater, liquefaction and soil pollution. The near surface has many geotechnical, environmental and hydrogeologic problems.

Major survey techniques are surface wave method, electric exploration, ground-penetrating radar and land streamer, but any methods will be discussed if your target is located in the specified depths. This session welcomes to discuss laboratory tests and rock physics for unconsolidated porous media in the vadose zone. Also, we will welcome not only cutting-edge technologies but also classic theory, if the knowledge is useful for human living.

[HTT19-P05]Evaluation of site amplification factors using seismic observation and miniature array analysis of microtremors in Zushi City

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To obtain high resolution seismic hazard map, we have conducted high density seismic observation and microtremor miniature array measurements in Zushi City, Kanagawa, Japan. Site amplification factors have been estimated using both seismic observation data and miniature array analysis of microtremors. As the results, in Zushi City, site amplification factor varies even in small area and amplification factors estimated using seismic observation and miniature array of microtremors have good correlation if the stations are located within 50m.