



Temporary seismic network for site effect estimation in Potenza, Italy

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We have installed a temporary seismic network in the city of Potenza, Italy. This city is located in the Southern Apennines and is periodically damaged by earthquakes. The seismicity in the region is moderate/high according to the Italian Seismic Code, however recent studies include Potenza in a high seismic zone. The city was selected as a case study within the framework of the ENSerVES project (European Network on Seismic Risk, Vulnerability, and Earthquake Scenarios; Dolce et al., 2003, Bull. Earthq. Engrg.), because an extensive inventory of the building stock had been executed after the last damaging earthquake in 1990. Our network consists of 11 stations recording continuously since middle of October 2004. The network will be in operation until March 2005. Stations are moved from time to time to enlarge the number of measurement points. During the first 3 months, approximately 90 teleseismic events and 60 local events have been recorded. We use Mark L-4C-3D sensors together with RefTek 72A stations. A 30 m deep borehole has been additionally equipped with an SBEPI borehole sensor connected to a Quanterra Q330 station. At the surface an STS-2 is installed for reference. Analogous to research done in the DFNK project (German Network for Natural Disasters) for Cologne and in the framework of CEDIM for Bonn we aim at recording ambient seismic noise as well as earthquakes for the estimation of site effects. We will show first results from the analysis of ambient seismic noise and earthquake recordings.