Japan Geoscience Union Meeting 2012
(May 20-25 2012 at Makuhari, Chiba, Japan)

SSS26-P10 Room:Convention Hall Time:May 20 17:15-18:30

S-wave velocity structure of southern Osaka plain estimated from ambient noise array survey and H/V spectra

YOSHIMI, Masayuki[1*], SEKIGUCHI Haruko[2], ASANO Kimiyuki[2]

[1]Geological Survey of Japan, AIST, [2]DPRI, Kyoto Univ.

We conducted ambient noise array survey at two locations in southern Osaka plain using 4 velocity seismometers arranged to equilateral array. Applying SPAC and E-SPAC method to the observed data, we estimate phase velocities (dispersion curves). Then, S-wave velocity structures satisfying the dispersion curves are searched using GA method, assuming three layers (Vs=0.35, 0.55, 1.0 km/s) or gradually increasing velocity structure overlaying seismic bedrock (vs=3.2km/s). Then analytical H/V has been compared with measurement for validation.

This research is funded by the Comprehensive Research on the Uemachi Fault Zone (in FY2011) by MEXT.

Keywords: SPAC method, sedimentary basin, Osaka, microtremor, ambient noise, H/V