Geophysical Research Abstracts,
Vol. 11, EGU2009-6837, 2009
EGU General Assembly 2009

Investigation of ambient noise cross-correlation at onshore-offshore networks

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The EGELADOS network is a dense temporary broadband onshore-offshore seismic network that was deployed in the southern Aegean from October 2005 to April 2007. It consisted of 65 three-component land stations (Guralp, Mark, STS-2) and 22 ocean bottom seismographs which were also equipped with a long period hydrophone. The average station distances were 50 km, the total extent of the network was 500 x 650 km.
We calculate and stack cross-correlations of ambient noise records at selected interstation paths to retrieve Rayleigh wave Green's functions. Dispersion analysis of Green's function seismograms provides group velocity curves which give information about the crustal and uppermost mantle structure that cannot be obtained from earthquake data. Besides, the slant stacking procedure gives extra information about phase velocity dispersion. In addition we retrieve Love wave dispersion from rotated seismic record components.
Especially in the case of interstation paths between two ocean bottom hydrophones we are not to be able to obtain Green's functions except for paths with an embedded island. Thus, we investigate possible influences which effect wave dispersion in this special case.