



## **Extraction of the Green's function from ambient noise in the Hellenic Subduction Zone using EGELADOS data**

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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 March 2007. It consists of 65 three component land stations and 22 ocean bottom seismographs which are also equipped with a long period hydrophone. The station distances are on average 50 km, the total extent of the network is 500 times 650 km.

In addition to tomographic investigations using regional earthquakes we calculated and stacked cross-correlations of ambient noise recorded at selected station pairs. In this way, the surface wave Green function representative of the path between the two stations can be retrieved. Dispersion analysis of Green function seismograms provides group velocity curves which give additional information about the crustal and uppermost mantle structure that cannot be obtained from earthquake data. We currently setting up a Green's function data base encompassing all station pairs available in the network.

Selected examples are shown that demonstrate the procedure of correlation and stacking of seismic noise as well as subsequent dispersion analysis.