



## **First manual localizations of microseismicity in the southeastern Aegean using data of the EGELADOS network**

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The temporary broadband EGELADOS network covered the entire Hellenic Subduction Zone from October 2005 to April 2007. Seismic events are detected and identified by an STA-/LTA-trigger and a grid-search algorithm, where relative travel times of pre-defined masterevents are compared to observed differential trigger times. Because of the high seismicity, we will focus on this poster on the eastern part of the Hellenic Subduction Zone including the forearc around Rhodos, Karpathos and Kassos and the volcanic arc around Nisyros. In addition, the considered region covers the transition zone from the Aegean to the Anatolian microplate at the west coast of Turkey. Localizations of the microseismicity of the first two months in 2006 are presented. For this region more than 500 of the 1200 triggered events were identified as local earthquakes and localised. The other triggers represent earthquakes outside of the working region, multiply triggered events, teleseismic events or noise, respectively. Microseismicity down to a magnitude of about ML 1.8 is detected completely. In regions with an increased station density, microseismicity may be observed completely down to magnitudes of ML 1. High microseismic activity occurred in the Gulf of Goekova in Western Turkey, S of the islands of Karpathos and Kassos, near the SE coast of Crete (Ptolemy trench) and SW of the Nisyros volcano. Furthermore, intermediate depth microseismicity was detected beneath the island arc SE of Astypalea. Remarkably, S-waves of intermediate depth events recorded in the island arc are strongly attenuated pointing to low Q in the mantle wedge above the subducting African lithosphere. In contrast, S-waves propagating within the slab from the source to the stations in the

forearc are much less attenuated.