

## **SKS SPLITTINGS IN THE SOUTHERN APENNINES - CALABRIAN ARC REGION (SOUTHERN ITALY)**

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During the years 2003-2006 CAT/SCAN (Calbarian-Apennine-Tyrrhenian/Subduction-Collision-Accretion Network) temporary broadband stations operate in Southern Apennine and Calabria (Italy). In the same period CESIS-INGV project improved the number of permanent seismic stations in the same area. We analyze the data recorded to study seismic anisotropy and to investigate the mantle flow in the boundary zones between Southern Apennine and Calabria, beneath and above the subducting slab. In the current work we present new shear wave splittings obtained analyzing SKS phases of 15 teleseisms with epicentral distance ranging from  $88.4^\circ$  to  $98.2^\circ$  and magnitude greater than 6.0. We used the method of Silver & Chan (1991) to obtain anisotropic parameters: delay time and fast polarization direction. The splitting parameters reveal strong seismic anisotropy in the mantle beneath Southern Tyrrhenian Sea- Calabrian Arc System that seems to be controlled by the slab presence. The clear variability in the fast directions allow us to hypothesize the existence of different anisotropic domains: fast polarization directions vary from NNW-SSE in the tyrrhenian side of the Southern Apennine to N-S and NE-SW toward the Adriatic Sea. Moving toward the Calabria fast directions are prevalently trench parallel showing a NE-SW orientation following the strike on the mountain chain.