

**AVERAGE SHEAR WAVE VELOCITY MODELS  
OF THE CRUSTAL STRUCTURE OF VESUVIUS**

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Some Vesuvius events recorded in 1989-1999 period at OSVE stations (FTC, BAF, BKE, BKS, BKN, SGV, SMC) have been processed by means of FTAN (Frequency Time Analysis) method. The fundamental mode of Rayleigh group velocities has been extracted in the period range 0.3-2 s. Group velocity data, in the period range 10-35 sec, and phase velocity data in the period 25-100s, have been obtained in a previous study of regional events located in the Italian peninsula and bordering areas. Lower periods, 0.02-0.2s, were sampled by measurements along seismic spreadings close to the OSVE stations. Average Vs models for the first 30km of the crust have been obtained by means of Hedgehog non-linear inversion method. They show low Vs values (about 2.45-3.05 km/s) at about 10 km of depth.