

Study area and seismic stations

Our study area is the transition zone between the Carpathian Mountains and the Pannonian Basin in Central Europe (Fig. 1). The Mohodiscontinuity is generally at shallow depth in this area, the values change between 21 and 43 km. The shallowest area is a Pannonian Basin due to $_{48^{\circ}}$. the lithosphere extension (Horváth et al. 2006). The structure of lithosphere is more complicated and the crust-mantle boundary is located deeper in the South Carpathian because of Adriatic convergence. We exploit seismological data of 56 stations including temporary broadband stations of the South Carpathian Project (SCP) and two permanent 46° stations in Hungary. So far no receiver function studies have been published for the SCP region. The SCP project provides good station coverage for the receiver function analysis and we present 6 migrated profiles beneath the study area.

Events

For the receiver function analysis we considered teleseismic earthquakes between 28°-95° epicentral distances and magnitudes larger than 5.5. The component seismograms and filtered them between 0.1 and 1 Hz.







colouredamplitudes are for stations on sediment.

Figure 8. Moho map from CCP migration

Ligorría, J.P. -Ammon ,C.J. 1999: Iterative deconvolution and receiver-function estimation. Bulletin of the Seismological Society of America 89. pp.1395–1400. Zhu L, Kanamori H, 2000. Moho depth variation in southern California from teleseismic receiver functions. Journal of Geophysical Research. 105(2), 2969-2980