ID: Type: **Poster**

T1.2-P01. Mantle discontinuities beneath the Balkans

The study of the upper mantle structure is of huge interest for understanding of geodynamics. Its characteristics define the thermal and substance transfer between upper and lower part. Receiver function technique is used to study upper mantle structure and the transition zone in the mantle beneath Bulgaria. It is applied to the data from 11 stations of National Digital Seismological Network, equipped with broad band seismometers. The main discontinuities in the upper mantle are well observed. These are asthenosphere-mantle discontinuity, which has a depth between 190-220 km, and discontinuities at 410 and 660 km. In North of Bulgaria and close to Sofia these two discontinuities have different depths than in iasp91 velocity model. The 410 km boundary varies between 390 (under VTS) and 430 (northern Bulgaria). The 660 km boundary is observed almost elsewhere under Bulgaria and varies between 660 and 670 km. Partially observed boundaries are 330 and 520 km.

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