



The lithospheric structure of East European Craton margin in northern Poland

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The Trans-European Suture Zone (TESZ) is one of the most prominent suture zones in Europe separating the young Paleozoic Platform from the much older Precambrian East European Craton. The data recorded by “13 BB Star” broadband seismic stations (Grad et al., 2015) are analyzed to investigate the crustal and upper mantle structure of the margin of East European Craton in northern Poland. Different techniques are applied: 1-D and 2.5-D forward modeling of RF, 1-D inversion of RF and dispersion curves of Rayleigh surface waves, 1-D joint inversion of the RF and dispersion curves of Rayleigh surface wave, to find the best S-wave velocity model of the craton’s margin. A high-resolution 3-D P-wave velocity model of the area of Poland (Grad et al. 2016) is used to build starting 1-D models for inversions. National Science Centre Poland provided financial support for this work by NCN grant DEC-2011/02/A/ST10/00284.