# THE EARTH CRUST STRUCTURE OF NW BOHEMIA ESTIMATED FROM THE DISPERSION OF SHORT-PERIOD SURFACE WAVES

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Northwestern Bohemia region attracts geoscientists for its complicated geological structure, mineral springs, post volcanic activity and periodic earthquake swarms. In the last three years several international seismic experiments took place in this area. Many records of quarry blasts and earthquakes were obtained.

This contribution shows examples of short-period surface wave records obtained from local seismic station network in Western Bohemia in last years including fundamental and higher modes. The multiple-filter technique for estimating the dispersion curves of surface waves is presented. It uses the constant relative resolution, optimal, Gaussian filtering in the frequency domain. Special modification of the technique was adjusted for studying short-period surface waves generated by quarry blasts. The matrix method for computing synthetic dispersion curves from layered model of Earth crust is shown and the problem of the velocity inversion along selected profiles is discussed. Surface wave tomography method is used to compute approximate local velocity model of both P and S waves down to the depth of several kilometers. These results complement the former obtained models of the region.