

Estimation of Average Shear-Wave Velocity at Strong-Motion Station by Using Peak Ground Motions Recorded at Nearby Station Pair

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In this study, a method for estimating the average shear-wave velocity of ground at strong-motion station by using peak amplitudes of ground motion recorded at nearby station pair is proposed. By applying this method to the earthquake ground motion records obtained at K-NET, KiK-net and JMA strong-motion networks, the average shear-wave velocities in the top of 30 meters are estimated for the JMA stations located in the Kanto region. The result indicates that for several JMA sites the average shear-wave velocities predicted from the method show good agreement with those estimated from borehole logs obtained in the vicinity of each site.