

Estimation of near-source strong ground motions during the 2000 Tottori-ken Seibu earthquake

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We estimate near-source strong ground motions during the 2000 Tottori-ken Seibu earthquake using source inversion models. We use hybrid simulation method for estimating wide-frequency band ground motions. For the lower frequency range ($<1\text{Hz}$), the kinematic source model from waveform inversion and 3D underground structure model are used. For the higher frequency range, high-frequency generation intensity distribution model from the acceleration envelope inversion and empirical Green function are used. Obtained ground motions are compared with the observed in the source area.