

Source modeling for the 2005 off-shore Miyagi prefecture earthquake and verification of the recipe for predicting ground motion

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A preliminary source model for the 2005 off-shore Miyagi prefecture, Japan, earthquake (Mj7.2) by Kamae (2006) was revised by referring to Suzuki and Iwata (2006). The source parameters for two asperities located on the fault plane were determined from the comparisons of the synthesized broad-band ground motions with the observed ones at several stations. The synthetics have been carried out considering the differences of stress parameter as well as source mechanism between the main-shock and the after-shock as the empirical Green's function. Resultantly, we estimated the source parameters of two asperities (6km*6km, 80MPa for Asp-1, 6km*7.5km, 48MPa for Asp-2). Furthermore, these parameters can be predicted based on the recipe for predicting strong ground motion.