
A study on source model construction to predict strong ground motion

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The Empirical Green's Function method (EGF) predicts strong ground motion at construction sites. However, in the case of large earthquakes, the predicted strong ground motion fluctuates significantly, depending on the source model. It is important to understand the range of fluctuations in order to obtain a precise estimation of the seismic motion caused by large earthquakes in the future. In this study, I focused on the 2003 Tokachi-oki earthquake and computed the strong ground motions using multiple source models to investigate the differences between these waveforms. The result revealed that the peak acceleration of these waveforms was roughly 0.1 to 2.5 times greater than observation records at the 2003 Tokachi-oki earthquake.
