SIMULATION OF STRONG GROUND MOTION RECORDED DURING THE 2024 NOTO PENINSULA EARTHQUAKE BASED ON AN EMPIRICAL GREEN'S FUNCTION METHOD

Hongjun SI

Engineering Seismology, Seismological Research Institute Inc., Tokyo, Japan

contact: shj@seismo-r.com

On 1st January 2024, an earthquake of Mw 7.5 occurred in Noto peninsula, Ishikawa prefecture, Japan. During the earthquake, abundant strong ground motion data have been recorded. In this study, in order to understand the generation of strong ground motion in the seismic source, we try to simulate strong ground motion based on the empirical Green's function method. The source model used in the simulation consists of 3 segments with one or two strong motion generation area in each segment. Two aftershocks are selected as empirical Green's functions, and the source parameters are estimated based on the omega 2 model. All the other parameters are decided for good fitting between the synthetic and observed seismic waves. The results show that the synthetic seismic waves are well consistent with the observations.