

Construction of basin and crustal structure model for strong ground motion simulation in Kinki, Japan

Tomotaka Iwata[1]; Takao Kagawa[2]; Anatoly Petukhin[2]; Yoshihiro Onishi[3]; Asako Iwaki[1]

[1] DPRI, Kyoto Univ.; [2] G.R.I.; [3] Geo-Research Institute

We construct a basin and crustal structure model in Kinki area for strong ground motion simulation of hypothetical crustal and subduction earthquakes. We compile reflection survey profiles and velocity model of the crust by three-dimensional tomography result for the crustal structure model. The basin structure models of Osaka, Kyoto, Nara, and Ohmi area are plugged into this crustal structure model. We also made microtremor array measurements in poor information area. To examine the applicability of the velocity structure model to ground motion simulation, waveform simulation of small or intermediate size event records is done. This study is supported by the project of regional characterization of the crust in metropolitan areas for prediction of strong ground motion supported by MEXT.