Spatial variation of predicted long period ground motion during the hypothetical Nankai-Tonankai Earthquake

Masato Tsurugi[1]; Boming Zhao[2]; Takao Kagawa[1]

[1] G.R.I.; [2] NJTU

The spatial variation of predicted long period ground motion during the hypothetical Nankai-Tonankai Earthquake is discussed in this paper.

The long period ground motions are simulated by finite difference method considering three-dimensional Osaka basin structure. The total number of analyzed sites is about 150. The ground motions at 15 sites along EW cross section and 13 sites along NS cross section are discussed.

It is confirmed that the peak ground velocity and response spectra at one site are about 1.5 or 2.0 times as big as those at other site about 2km away in Osaka bay region and east part of Osaka prefecture. This result suggests that a basin structure significantly affects on amplification and phase characteristics of simulated ground motion and a detail basin structure must be modeled.