

A construction of 3D S-wave velocity model in the Kanto plain for FDM simulation

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Some investigation of the subsurface underground structure is made by some geophysical explorations. We examined S-wave velocity profile by microtremor array measurements at the area of unknown the structure. Furthermore we constructed the 3D structure models of the Kanto area by using the result of Suzuki (1999) and Yamanaka et al. (2000).

We have tested the 3D structure model on the simulation long-period velocity motions using a 3D finite difference numerical modeling approach. A target event is the intermediate-depth and shallow earthquake around the Kanto area. The results of simulation are shown a variation the synthetic waveform and amplitude are useful information for constructing of the 3D earth model for the simulation of ground motion.