Long-period ground motion simulation using a new 3D sedimentary basin model by microtremor array explorations in the Kanto plain

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Many sites on sedimentary basin in Japan is explored the S-wave velocity structure by long-period microtremor array measurement. In the Kanto basin, the total site is 241 surveys. We compiled these results, and reconstructed three dimensional S-wave velocity structure model of the basin. The new proposed model is more detail than the previous model; Yamanaka and Yamada (2002). Ground motion simulation during the 1990 Izu-Oshima Earthquake by the proposed model has well results of the comparison with the previous model at Yokohama and Tokyo. Although, the results have some problems, especially the velocity response spectra of long-period range was improved. Furthermore, we'll curry out a simulation during the 2004 Off-Kii Peninsula earthquakes. These simulations show some characteristics of long-period ground motion in Kanto plain.