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Characteristics of long-period seismic ground motions in the Tokyo bay area -Effects of focal depth on later arrivals-

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It is well known that the long-period surface wave at a period range of several to ten-odd seconds is predominant in the Kanto plain. Tokyo Electric Power Company installed wideband seismometers with servo type velocity sensor at their thermal power plants and research laboratory in the Tokyo Bay area and has observed long-period ground motions. The records from the two M5 earthquakes occurred in the east off Izu peninsula at the depth of 7km and 15km in 2006 showed the difference in the later arrivals. We conducted the three-dimensional seismic simulation using FDM for examining the relationship between the characteristics of the excitation of the later arrivals and the focal depths.

Keywords: Long-period seismic ground motion, The Kanto plain, Sedimentary basin, Three-dimensional simulation, Broadband strong motion observation, E-off Izu Peninsula earthquake