

## FD simulation of Long-period ground motion during the 1984 Western Nagano Prefecture Earthquake -Part 2-

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1984 Western part of Nagano Prefecture Earthquake (M6.8) occurred at central Honshu Island in Japan with heavy damaged around the source area. This event was recorded at some JMA observation stations. Koyama et al. (1992a) pointed out one of some records had a distinct later phase with a delay time of 1 minute after arrival of initial S-wave only at Kumagaya JMA station in the northern part of Kanto plain. We carried out FD simulations of the long-period ground motion during 1984 Western part of Nagano Prefecture Earthquake which generated similar later phase using the three-dimensional underground structure model proposed by Yamanaka and Yamada (2002). A source rupture process of the main shock was referred from result of Yoshida and Koketsu (1984). The synthetic waveforms of the FD simulations showed the distinct later phase only at Kumagaya. The analysis indicated the appropriateness of the Koyama's interpretation. Although, we can simulate qualitative feature of the observed motion at Kumagaya, perfect matching of the synthetics and observation is still difficult task. It is required in future study to improve subsurface structure model near the Kumagaya station.