

Site effects on the Nobi Plain during the Wakayama-ken Hokubu Earthquake (M5.5) on August 21, 1999

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Site effects on the Nobi Plain during Wakayama-ken Hokubu Earthquake are considered. The seismograms observed on the EW profile and radial profile showed strong amplification in the western part of the Plain and longer duration of strong shaking than outside the Plain. Especially obvious wave propagation is seen in the seismograms at eastern sites. Next, wave propagation of later arrivals of S wave is investigated using array data observed at Higashiyama which is located near eastern boundary of the Plain. Semblance analysis and particle motion analysis suggest that later arrivals are Rayleigh wave with phase velocity of 1.0 to 1.5 km/s on EW and UD components and Love wave with velocity of 0.7 to 1.2 km/s on NS component which is generated at eastern Plain boundary, respectively.