

## Comparison of peak velocity distribution in the Kobe area derived from various source models of the Hyogo-ken Nanbu earthquake

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We simulated strong motions in the Kobe area considering the 3-D basin structure and several different source models of the Hyogo-ken Nanbu earthquake and compared their peak velocity distribution. The models used are Wald's model derived by inversion, Kamae's model derived using semi-empirical Green's function method, and Matsushima's model derived using theoretical synthetics. The results of Wald's model showed a wide region of high amplitude caused by the long-period characteristics of the model. Kamae's model showed two regions with high amplitude. Matsushima's model showed a distribution very similar to the JMA intensity VII area. From these results we found that it is necessary to use a source model that can reproduce pulses with natural period of 1 second.