

Broad-Scale Mapping of Ground Shaking for a Scenario Earthquake: Case Studies for Three Events Occured in 2003

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In order to confirm the validity of the ground-shaking mapping techniques for large area proposed by authors, the distributions of seismic intensity calculated from the techniques are compared with the actual isoseismal maps during the Miyagi-ken-oki earthquake on May 26, the Miyagi-ken-hokubu earthquake on July 26, and the Tokachi-oki earthquake on September 26 in 2003. A comparison for the Miyagi-ken-oki earthquake shows that the computed map matches with the observed map in large area except for the southern part of Hokkaido. In the case of the Miyagi-ken-hokubu earthquake, the computations show relatively good agreement with the observations from Hokkaido to Kanto region. As for the Tokachi-oki earthquake, the computed seismic intensity in the southern part of Hokkaido is in accord with the observed one however the computation tends to be greater than the observation in the northern part of Hokkaido and Tohoku region.