# Ground Motion Prediction of Megafault Systems: Characteristic/Non-Characteristic Earthquakes, Interaction between Fault Segments

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This study is aiming at methodology of ground motion prediction for megafault systems based on dynamic rupture modeling. The motivation arises from that the 1995 Kobe earthquake is considered to rupture only some segments of the Nojima-Rokko-Arima-Takatsuki tectonic line, and never ruptures all the segments like the 1956 Keicho-Fushimi historical earthquake (over M7.5) which is one of characteristic earthquakes. How we can make a scenario for the next coming earthquake on the tectonic line? We think that it is important to capture the earthquakes based on the idea of the active fault segments and characteristics, rupture dynamics, and earthquake cycle simulation. We have a comparative study with Californian earthquakes in U.S. For example, earthquakes with different sizes occurred on the Northern San Andreas fault system (1906 Great San Francisco, 1989 Loma Prieta, etc.) and the Imperial Valley fault (1940 and 1979).

Acknowledgement

This paper is partly supported by a scientific research grant 'Nuclear Energy Safety Study for Natural Sciences' of the Incorporated Administration Agency 'Japan Nuclear Energy Safety Organization'.