

Evaluation of earthquake source fault length from active fault and subsurface information

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In a strong ground motion prediction, the evaluation of fault length is important because fault dimension provides the size of an earthquake. The Headquarters for Earthquake Research Promotion published Regarding the revised Methods of evaluating active fault in 2010. This method estimates the subsurface fault based on the combination of active fault and subsurface information, such as geological structure and geophysical information. We evaluated lengths of Japanese inland earthquakes, according the above mentioned methods. The estimated fault length in mature active fault zone were similar or longer than that of the earthquake source fault inferred from strong ground motion inversion. On the contrary, the estimated fault length in immature fault zone were shorter than that of inverted results.

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