

Characterized fault model for Itoigawa-Shizuoka Tectonic Line and strong motion prediction

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Based on the existing ideas on characterizing complex fault rupture process, we adopted four different characterized fault models for predicting strong motions from a future earthquake occurring along the active fault zone of the Itoigawa-Shizuoka Tectonic Line, which had been investigated by the Government's Earthquake Investigation Research Promotion Headquarters. Then, we calculated broadband strong ground motions at three K-net stations near the active fault by a hybrid method of the semi-empirical and theoretical approaches. We compared the strong motion prediction results from the hybrid method with those from the existing empirical attenuation relations, and discussed the relationship between the characterized fault models and the strong motion characteristics.