

Simulation of earthquake cycle along the Nankai Trough –parameterization of fault segments using a spring-mass model–

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Along the Nankai Trough, great earthquakes occur with a recurrence time of 100 years, and the seismogenic zone is divided into five segments. To model the interaction between the segments as simply as possible, we use a one-dimensional spring-mass model. Moreover the parameters of the rate and state friction law, which is applied to the friction working interface between the block and floor, represent the condition of each segment. In case where the high heat flow at the Shikoku district and the presence of the Izu peninsula are considered, the Nankai and Tonankai earthquakes start to occur near the Kii peninsula.