

Modeling of large intraplate earthquakes

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We constructed a simple mechanical model that consists of springs, sliders, and dashpots, to clarify the generating process of intraplate earthquakes. The model includes interplate earthquakes that occur in the subduction zone. In order to explain recurrence times of both intraplate and interplate earthquakes, it is necessary that anelastic deformation occurs around the seismogenic fault, such as a ductile fault zone in a deeper extension of the seismogenic fault. The time-dependent behavior of the anelastic deformation mainly determines the recurrence time of intraplate earthquakes.