

Implications of seismicity on active faults in Japan

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We have been examining the relationship between the elapsed times from the most recent surface-faulting events of active faults and seismicity along the faults. We then found the following three general tendencies, 1) high seismicity rate on the active fault ruptured within the past ~150 years, 2) low seismicity rate or complete dormancy on the fault ruptured at several hundred years ago, and 3) moderate seismicity rate or some clustered activity on the fault elapsed more than several hundred years since the most recent rupture. They might be corresponding to the periods of aftershocks, dormancy, and intermediate-term precursor in a seismic cycle on an active fault respectively.