On seismicity changes in western Japan associated with the two great interplate earthquakes in Nankai Trough

Yosihiko Ogata[1]

[1] Inst. Stats. Math.

http://www.ism.ac.jp/~ogata/

The magnitude-frequency distributions of all detected inland earthquakes associated with determined magnitude in the JMA Hypocenter Catalog are verified to be time-invariant throughout the period 1926-1950 for shallow inland earthquakes, with the exception of those for which the aftershocks sequences of the several strong large earthquakes occurred within the period. Using this data, I shall discuss and demonstrate that the relation between the seismicity changes (quiescence or activation) in various regions in western Japan and stress changes caused by the two great interplate earthquakes in Nankai Trough are consistent with the theory of the Coulomb failure function. Moreover, I speculate that the observed seismic quiescences before the 1944 Tonankai great event are due to the preseismic slips in or around the assumed fault.