

Stress field around intraplate earthquake faults -What is the difference between NKTZ and NMTZ?-

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Stress field around intraplate earthquake faults can be modeled under the two different geometries, the Weak Zone with limited and unlimited lateral extents. The former and latter models can explain the NMSZ (New Madrid Seismic Zone) and NKTZ (Niigata-Kobe tectonic zone), respectively. The former model predicts that stress concentration occurs above the Weak Zone, while the latter model does that the stress above the Weak Zone is smaller than that in the surrounding area. This is because in the model of the Weak Zone with a limited lateral extent, the lower crust except for the Weak Zone sustains the far field stress.