

Temporal changes in strain rate tensor near the 2000 Western Tottori Earthquake Fault

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Temporal changes in strain rate tensor near the 2000 Western Tottori Earthquake Fault were examined. We calculated two components of horizontal velocities (NS and EW) at grid points divided every 0.2 degree. We set the running time window of 1.5yr for 1997/4/1-2000/9/30 (before the earthquake) and 2003/3/1-2005/3/31 (after the earthquake) every one month. We estimated horizontal velocities from the F2 solutions of GEONET stations by GSI, and calculated strain rate tensor using the method based on Kobayashi and Hashimoto (2005), though no weight for distance between a GEONET station and a grid point was applied. We used neighbor five stations for each grid point. Before the earthquake, temporal change in strain rate tensor was seen at the grid points near the fault. After the earthquake, while no significant change at the grid point far from the fault (reference grid), it should be noted that the principal axes of strain rate tensor clearly changed at the grids near the fault.