Stress field estiamted by multiple inverse method using focal mechanism solutions in central Japan

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We analyzed stress field in central

Japan region by multiple - inverse technique (Yamaji, 2001, Otsubo et al., 2006) using focal mechanism data (NIED F-net solutions depth less than 30km).Dataset is divided into 1 x 1 degree regions. For each region, we obtain two stress solutions by cluster analysis. We selected input faulting data which could be slipped by specified stress solutions. By plotting these solutions at the specified input data, we can image stress heterogeneity within analyzed area. Most of the solutions are strike-slip and reversed stress regime. Stress ratios (phai) distribute between 0.0 and 0.67. Solutions with medium stress ratio (0.33- 0.66) are reverse fault regime in northeast region and strike-slip regime in southwestern part of the central Japan. It shows clear regional difference.In contrast,solutions with lower stress ratio (phai: sig2 is close to sig3) distribute wide area in this analysis but limited in near NKTZ(not found in Tokai etc).