

Strain rates change associated with the '04 Niigata Chuetsu and '07 Niigata Chuetsu-oki earthquake derived from GEONET data

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We report the crustal strain rate change associated with 2 earthquakes on 2007 and 2004 in the Niigata Chuetsu region. The Method to detect the strain rate change from the strain time series data between GPS stations in GEONET network operated by GSI is improved by using the seasonal adjustment model by Ishiguro and Akaike information criterion (AIC). Ojiya and Kashiwazaki2 stations in the GEONET network, these are close to the epicenter of the later earthquake, displaced irregularly at the early 2007 when the temperature was higher than usual, and these are corrected with improved procedure. In the vicinity region of the epicenter of former earthquake, there revealed remarkable postseismic deformation. In the neighboring region on the epicentral sea area of later earthquake, strain rates on some baselines have increased after the occurrence of the earthquake.