

Crustal deformation of the 2000 Tottori-ken-seibu earthquake detected by RADARSAT SAR interferometry

Hiroshi Yarai[1], Makoto Murakami[2], Mikio Tobita[1], Hiroyuki Nakagawa[3], Satoshi Fujiwara[4]

[1] GSI, [2] Crustal Deformation Lab., The GSI, [3] Space Geodesy Lab., GSI, [4] GSI, Mizusawa

<http://www.gsi.go.jp/>

The coseismic displacement field on the Earth's surface associated with the 2000 Tottori-ken-seibu Earthquake was mapped by combining satellite radar interferometry images. We obtained the interferogram from two scenes before and after the earthquake (September 17 and October 11, respectively) obtained by RADARSAT.

We could successfully detect not only the coseismic displacement field associated with the main shock on Oct. 6 but also the one associated with the sub-event on Oct. 8.

We confirmed that this displacement field is consistent with the calculated field by the fault model that is constructed from GPS data.