

Crustal Deformation by SAR Interferometry, <Earthquake Remote Sensing Frontier Research>

Naoyuki Fujii[1], Shigeki Kobayashi[2], Takako Sakurai-Amano[3], Masanobu Shimada[2], Tetsuya Kodama[4], Masaki Ichihashi[5]

[1] RCSV, Grad. Sch. Sci., Nagoya Univ., [2] EORC, NASDA, [3] EORC/NASDA, [4] Earth Observation Systems Department, NASDA, [5] NASDA/EORC

<http://www.seis.nagoya-u.ac.jp>

We report main results of the project "Crustal Deformation by SAR Interferometry (InSAR)": In order to clarify the earthquake occurrence and eruption processes by detecting the ground deformations using SAR interferometry technique, promising results are obtained by following approaches:(1) Error analysis of Satellite InSAR for the Geodeyic accuracy, (2) Improvements of accuracy in InSAR by adding ground observation data, such as GPS, GCP, and Meteorological data, and (3) Feasibility of detectability of crustal deformation by a repeat-pass Air InSAR (X-band).