

STT057-P07

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## The Active volcanoes in Japan as viewed from the ALOS/PALSAR Interferometry (4)

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ALOS has an L-band SAR (PALSAR), which is not affected by vegetation, and the interference is good even in mountainous areas. So these methods are effective for the crustal deformation observation of volcanic areas.

In previous studies, we have reported the analysis results about all domestic active volcanic areas, using InSAR of ALOS 'Daichi' since 2007. However, these pairs were limited to the special data because the observation period since ALOS launching was not that long. And then we are not able to use snowy season data even if there was enough SAR image data. Because InSAR method is affected by snow. Fortunately, ALOS 'Daichi' has continued operating smoothly since and data for about four years has been accumulated. Therefore we tried interference analysis with pairs of around two years without using the data from the snowy season. The interference processing in long term pairs of more than one year had good correlation and was effective for detecting ground deformations. As a result of volcanic activity in Mt. Azuma and Mt. Kirishima (sinmoe), we were able to detect the local ground deformation. Also, we were able to obtain the superficial ground deformation about non active volcanic areas.

In this report, we are mainly going to talk about the ground deformation around an active volcano using the SAR interference method.

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Keywords: SAR, Interferometry, ground deformation, ALOS/PALSAR, active volcano