

## Antarctic ice shelf and ice sheet through ALOS-2 / PALSAR-2 satellite

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After the two years of launch of ALOS-2 satellite, PALSAR-2 collected the fine data on Antarctic continent and surrounding ice shelves. We would like to report the first two years of results using ALOS-2 / PALSAR-2 data. Our study focus on two subjects, one is 3pass or 4pass DInSAR (DDInSAR) analysis for detection of marginal zone between ice sheet and ice shelf, known as "grounding line". It is very few 3pass InSAR pairs even after two years of data accumulation, we introduce the intermediate report of the analysis through the comparison of grounding lines made by ERS-1/2 and ALOS / PALSAR data respectively. The other is time series analysis of ice shelf change on Prinsesse Ragnhild Kyst. This area is located on East Antarctica, where its climatological change is said to be relatively calm. We investigate the variation of the ice shelf trough the time series SAR backscatter image analysis.

Keywords: ALOS-2, InSAR, Time series analysis