

Polar Research using Satellite Microwave Remote Sensing

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Satellite Microwave remote sensing is the powerful tool to investigate polar regions. The data enables monitoring and surveying ice sheet, sea ice, snow cover conditions for large scale and continuous monitoring in the changing climate, and studying their changing mechanisms. Satellite passive microwave observation has almost 30-years long data set which contribute climatological study. The recent GCOM-W data is useful for more precise investigations.

For the Arctic study, GRENE Arctic climate research project(2011-2016) has started by integrating Japanese scientific activities. satellite microwave data is very important to this project since satellite data expands availability of site data to large area and long term. The Arctic project enhances interdisciplinary study and collaboration between modelling and observation. Multi-disciplinary information and scale-upping by satellite is very important.

Keywords: Polar region, Arctic, Antarctic, Cryosphere, satellite, Microwave