

# Combined use of SKYNET observations for retrieving microphysical properties of cirrus clouds

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## Abstract

SKYNET has been collecting radiation data for more than ten years with several instruments. Especially at the super sites such as Cape Hedo and Fukue Isle observatory, intensive measurements have been carried out with a lot of instruments (e.g. skyradiometer, pyrhelimeter, pyranometer, pyrgeometer, microwave radiometer, sunphotometer, and lidar). Synergetic analysis of cloud and aerosol properties using these instruments together were not performed sufficiently. We will analyse optical properties of cirrus clouds by the synergetic use of several instruments and will compare the derived properties to the ones from MODIS analysis.

The first target is an improvement of the i-skyradiometer algorithm developed by Kikuchi (2006) to retrieve cirrus cloud microphysical parameters. The second is to use data taken by other instruments to reduce uncertainties caused by the existence of aerosols and/or broken clouds. Finally we would like to compare the results with MODIS results.