

## Monitoring of the volcanic activity using MODIS data

# Takafumi Noguchi[1]; Nozomi Ohno[2]; Katsumi Hattori[3]; Takashi Maeda[4]; Tadashi Takano[5]

[1] Earth Sciences, Chiba Univ.; [2] Geosys. and Biosys. Sci. Div., Graduate School of Sci. and Tech., Chiba Univ.; [3] Chiba University; [4] EORC, JAXA; [5] ISAS, JAXA

The natural hazards caused by volcanic eruptions and large earthquakes, have been reported from all over the world. Japan is one of the active volcanic countries in the world. It is important to predict a volcanic eruption for prevention of the disaster. The volcanic eruption is predicted on the basis of the metempiric way from the past experience such as the eruption patterns and interval and observation data. But we can't predict all volcanic eruption in this way, and it is impossible to observe continually all volcanoes. On the other hand, the satellite remote sensing can monitor over wide area, frequently. It has a essential importance. In this study, we used the infrared sensor of MODIS on board the satellite Aqua, and tried to detect the temperature anomalies on the surface which are connected with volcanic activity. So, in this paper we analyzed the data associated with Mt. Merapi in Indonesia(7.532S, 110.442E,2911m), which erupted May 2006. The results indicate volcanic activity-related temperature anomaly exists and it is detectable by using the band 20 of MODIS.