An attempt to detect lava eruptions on Venus using 1 um camera onboard Akatsuki

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On Venus, there are lots of landforms which are related to volcanic activity. Although it has been supposed that Venus is still volcanically active (e.g., Shalygin et al., 2015), there still remains ambiguity in the current activity. In this presentation, we introduce a method to detect lava eruptions using IR1 camera onboard Akatsuki. Since IR1 camera observes thermal emission from the Venusian surface at 1.01 um wavelength, a hot lava should be observed against background of relatively cool surface. Although surface thermal emission is scattered and attenuated by clouds, bright spots caused by horizontal inhomogeneity of clouds would be excluded. We will show an example analysis of hot surface detection using IR1 data.

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