**R009-30**
**B 会場 ：9/27　PM1 （13:45-15:30）**
**14:30〜14:45**

# LIR の長期観測から得られた金星雲上層での平均温度と熱潮汐波の変動

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# Variations in mean temperature and thermal tides in upper cloud layer of Venus obtained from LIR long-term observation

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Recently, there have been several observational evidence of long-term Venusian climate change. For instance, Lee et al (2019) indicated significant variations in UV albedo (more than twice, 20 % to 40 %) and zonal wind speed (more than 30 m s-1) with decadal scale, and Lee et al. (2020) also suggested a 630-day variation in UV albedo. Khatuntsev et al (2023) suggested 12-year variation in zonal wind speed. Since these variations have huge amplitudes and are global scale, they should be worth to be considered for understanding global-scale dynamic momentum/material transportation in Venusian atmosphere.

In this study, we focused on long-term temperature data obtained by Longwave Infrared camera (LIR) onboard Akatsuki, which has observed Venus for more than 7 years, because such variations should exist in temperature of Venusian atmosphere which is a fundamental atmospheric parameter. We divided LIR data into specific emission angle ranges to obtain a vertical profile of temperature by utilizing LIR's sensing altitude dependence on emission angle, then we conducted a sliding window analysis by averaging one Venusian-year LIR data in terms of local time and latitude with a short interval to obtain temporal variations in both mean temperature and thermal-tide structure. From the result, there was a clear quasi-periodical variation in diurnal tide-amplitude in mid-high latitudes whose time scale was 600 − 800 days, while a similar time-scale variation was also confirmed in mean temperature in low-mid latitudes although the amplitude was faint (less than 1 K). Because of the time-scale similarity, the UV albedo variation with a time scale for 630 days might relate these variations.