[EE] Evening Poster | P (Space and Planetary Sciences) | P-PS Planetary Sciences

[P-PS04]Results from Akatsuki and advances in Venus science

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Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

More than two earth years in Venus orbit, Akatsuki has acquired a volume of high-quality data, unveiled many new phenomena and is allowing researchers to investigate the underlying mechanisms. As the data accumulate, numerical models and theories are being advanced as well. We are no doubt living in the new golden era of Venus studies. This session invites papers of the new scientific results with Akatsuki data and the latest results of theoretical and numerical works. We expect participants of this session share the latest research results through presentations and discussion.

[PPS04-P05]Fine vertical structure of Venus upper haze as revealed in Akatsuki/IR2 limb images.

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Keywords:Limb observation, Venus upper haze, Near infrared

Akatsuki observes Venus from an elongated elliptical orbit (an orbital period is ~11 earth days). Since this orbit receives strong purturbation by the sun's gravitaion, the peri-center distance from Venus fluctuates. On 30 October 2016, when the spacecraft is near the peri-center (~8200 km from the center of Venus), limb observations were carried out with onboard cameras. IR2 captured Venus limb images at 2.02-micron and detected a step-like intensity variation of the upper haze at the limb. The image indicates existence of approximately 6-pixel (or ~7 km) wide vertical structure at the planetary limb. By correcting for the IR2 point-spread function, we discuss the vertical aerosol structure (number density and scale height) in the upper atmosphere.