

Examining the superrotation maintenance mechanism in the Venusian atmosphere with Akatsuki

*Takeshi Horinouchi¹, Masahiro Takagi², Shin-ya Murakami³, Toru Kouyama⁴, Kazunori Ogohara⁵, Shigeto Watanabe⁶, Atsushi Yamazaki³, Manabu Yamada⁷, Kensuke Nakajima⁸, Yoshi-Yuki Hayashi⁹, Javier Peralta³, Sanjay Limaye¹⁰, Takeshi Imamura¹¹, Takehiko Satoh³, Masato Nakamura³

1. Faculty of Environmental Earth Science, Hokkaido University, 2. Kyoto Sangyou Univ, 3. ISAS, 4. AIST, 5. Shiga Prefecture Univ, 6. Hokkaido Information Univ, 7. Chiba Institute of Technology, 8. Kyushu Univ, 9. Kobe Univ, 10. UW-Madison, 11. Univ Tokyo

The super-rotation (SR) of the Venusian atmosphere is one of the greatest unresolved problems in planetary meteorology. We examine this issue by using data from the UVI camera onboard the Akatsuki orbiter. We succeeded in deriving eddy momentum transport to enable for the first time with a reliability to facilitate angular momentum budget analysis at the cloud top of Venus. Discussion will be made considering recent general circulation modeling results.

Keywords: Venus, Superrotation, Akatsuki