The Spatially-resolved HCN(J = 4-3) Interferometric Observation on Neptune's Stratosphere with ALMA Array

*Takahiro IINO[1], Yasuhiro HIRAHARA[2], Satoru Nakamoto[2], Yuma Nakayama[3], Toru Takahashi[4]

1.Nature and Science Museum, Tokyo University of Agriculture and Technology, 2.Graduate School of Environment, Nagoya University, 3.Department of Earth and Planetary Sciences, School of Science, Nagoya University, 4.Center for Space Science and Radio Engineering, The University of Electro-communications

ALMA array is a powerful tool to illustrate both the photochemistry and dynamics of gas giants' stratosphere thanks to its high spatial resolution and sensitivity. We have constructed the spatially-resolved HCN(J=4-3) map of Neptune with archived ALMA data obtained during Cycle-0 season. From the doppler-shift analysis, stratospheric dynamics of Neptune's stratosphere showing the spatial difference is illustrated clearly. In this presentation, obtained result and possible driving mechanism of the dynamics will be discussed.

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