

## Initial Result of Millimeter Waveband Observations toward the Newly-discovered Comet, C/2011 L4(PANSTARRS)

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Revealing the chemical abundances of comet is crucial for study of the planetary formation process. C/2011 L4 (PanSTARRS) is a good target to address the chemical abundance ratio of cometary composition since the heliocentric distance at perihelion is predicted to be as close as 0.3 AU from the Sun, three times closer than the case of comet Hale-Bopp. We conducted multi-epoch line-survey observation toward C/2011 L4 (PanSTARRS). Highly sensitive observations with wide spectral coverage realized by TZ receiver and SAM45 spectrometer on-board Nobeyama 45-m telescope of NAOJ make it possible to observe many representative volatile gases such as HCN, HNC, SO, CS, NS, CH<sub>3</sub>CN, CH<sub>3</sub>OH, simultaneously. Observation period are from March to April 2013 with total 20 hours observation time in three epochs. Initial result of this observation campaign will be presented.

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