

## **New Molecular Views of Southern Star Forming Region**

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I will present new molecular views of southern sky based on the CO survey for star forming regions conducted by Nagoya University with the NANTEN 4-m millimeter wave telescope. The NANTEN telescope is installed at the Las Campanas Observatory in Chile under a mutual agreement between Nagoya University and the Carnegie Institution of Washington. Through the survey, molecular gas distribution and the physical properties of cluster forming regions in the Magellanic Clouds, Galactic star forming GMCs, dark clouds, high latitude clouds, and interacting clouds with HII regions and/or SNRs are studied at a beam size of 2.'7 in the  $^{12}\text{CO}$ ,  $^{13}\text{CO}$ , and  $\text{C}^{18}\text{O}$  (J=1-0) molecular emission. I will review the expected contribution of the southern CO survey to the ALMA project, and discuss the scientific targets related with star formation at the time the ALMA becomes available.

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