

## **Interferometric Imaging of Molecular Envelopes with and without YSOs**

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Molecular envelopes are sites of star formation, and their geometrical and kinematical properties are very important to understand star formation. Particularly, their velocity structures, such as infall or rotation, need to be studied in detail to understand processes essential for star-formation. In order to investigate the physical properties of molecular envelopes in very detail, we need fine angular and velocity resolutions, which resolve both geometrical and velocity structures of molecular envelopes. A millimeter & submillimeter-wave interferometer is a very powerful tool providing high angular and velocity resolutions. Interferometric observations have realized *direct* imaging of infalling motions in molecular envelopes. In my talk, I will review what we learned about the physical properties of molecular envelopes with and without young stellar objects (YSOs) through interferometric observations. I will also discuss what we may learn about star-formation using a large millimeter & submillimeter array.

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