

## High-mass star formation explored with maser VLBI & thermal (ALMA, JVLA) observations

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Intense methanol and water maser transitions are commonly observed towards high-mass young stellar objects (YSO). Multi-epoch VLBI observations allow us to determine maser positions and 3-D velocities with an accuracy of about 1~mas and 1~km/s, respectively. Presently, JVLA cm and ALMA mm observations can determine the spatial distribution and (line of sight) kinematics of the thermal (continuum and line) emission around the forming star with unprecedented sensitivity (~10 microJy and ~1 mJy for continuum and line, respectively) and angular resolution (0.05-0.2 arcsec). Combining maser VLBI and thermal interferometric datasets is the most accurate way to determine the physical conditions and unveil the dynamical structures (disks, jets, expanding/infalling shells) associated with massive star formation. This talk presents the results of this technique for three high-mass YSOs: G16.59-0.05, G23.01-0.41 and G24.78+0.08, whose maser emission has been extensively monitored with VLBI and for which we have recently obtained new JVLA and ALMA data.