

P27a

High Resolution H₂O Maser Observations of Class 0 Protostar Candidates

Ray Furuya(Ibaraki University), R.Kawabe(NRO), Y.Kitamura(ISAS), M.Saito(University of Tokyo), T.Umemoto, V.Migenes(NAOJ)

H₂O maser observations are one of the powerful tools to reveal the structure and kinematics of circumstellar environment with several AU scale resolution. We carried out H₂O maser observation towards Class 0 protostar S106FIR and newly found H₂O masers in L723FIR, one of the lowest-luminosity Class 0 source, with VLA, Japanese VLBI Network and VLBA snapshot observations. Two clusters of H₂O masers were found in S106FIR; each cluster were spread over 10-20AU, and the separation of the clusters was approximately 60AU. The systematical velocity structure of masers were also found. Possible kinematics of these masers will be presented.