

**Proposal Abstract:**

OH megamasers (OHM) are one of the most intense emission line features in the centimeter band in galaxies and is closely associated with the drastic physical process such as merging, star-burst, and AGN activities. This proposal is aimed to search for OHMs with improved selection criteria, in particular the intense submillimeter (SMM) emissions, which suggests a high luminosity in dust-obscured state. With the high-sensitivity FAST observation, we will explore the OHMs towards higher redshift above the current record ( $z > 0.26$ ), and examine the potential connection between OHM and intense galactic radiative and dynamical activities.