

Proposal Abstract:

Fast radio bursts (FRBs) are high-energy millisecond-duration radio transients from cosmological origins. FRB 20121102A and FRB 20190520B are found to be associated with a compact persistent radio source (PRS). Interestingly, in addition to FRBs, the persistent radio sources associated with other transients are also found. Some of them are similar to PRSs associated with FRBs in terms of physical sizes and flat spectral indices, which suggests that these sources are candidates for FRBs. The high sensitivity of FAST is beneficial for searching for FRBs from PRSs. We propose to use FAST for FRBs searching in three of these PRSs. We hope to apply for 8 hours for this project.