

Proposal Abstract:

Millisecond pulsars (MSPs) tend to be in binary systems. Finding new binary systems especially the ones challenging the current stellar evolution theory is always on the frontier of pulsar astrophysics. The FAST Galactic plane pulsar Snapshot survey (GPPS) has discovered 658 pulsars, including about 160 MSPs. 70 of them have been confirmed in binary systems. In this proposal, we propose to observe the other 37 MSPs that exhibit significant evidence of binary nature. With these observations, initial estimates of the Keplerian orbital parameters of the binary candidates will be measured, and the nature of the binary companions and also the evolution history of the systems can be largely ascertained.