

Proposal Abstract:

Our targets are seven binary and three-millisecond pulsars discovered in the Commensal Radio Astronomy FAST Survey (CRAFTS). In the past session, we conducted an initial timing campaign and solved four binary pulsars' spin-down rates. PSR J2150+3427 is the DNS system, and the total mass of the system we measured is $2.74(34) M_{\text{sun}}$. More post-Kepler parameters can be measured by continuing the timing observation and will help determine its companion mass. Now we propose a long-term timing project to monitor these binaries which were observed with a low observing cadence before. In a few years, this long-term monitoring project can help us estimate the total mass of these pulsar systems, astrometric parameters (parallax, proper motion), orbital parameters, and relativistic effects in binary systems.