

Proposal Abstract:

This is the next stage of the 2023 'FAST Science Observing Proposals' project. In the previous science project (PT2023_0034), we proposed 8 hours for timing observations of five new millisecond pulsars and one double neutron star (DNS) system, discovered by the Commensal Radio Astronomy FAST Survey. To date, we have solved the these five newly discovered pulsars and identified them as three pulsar binary systems (including one possible PSR - CO WD binary system) and two isolated pulsars. In this proposal, we propose a new campaign to timing seven newly discovered millisecond pulsars and to continue monitoring the DNS and possible PSR - CO WD binary system. With this timing campaign, we can conduct the phase connected timing ephemeris of these new pulsars, get the mass measurements of the DNS and the possible PSR - CO WD binary system, and could publish the results at the next session.