

PID:PT2022_0013

Abstract:

"This is the next stage of the 2021 "FAST Science Observing Proposals" project led by a Ph.D. student of UCAS. At the related science projects, we had proposed 71 hours for timing 15 new millisecond pulsars (MSPs) found by CRAFTS1 (2019 - 2021). Until now, we had timed and solved these MSPs, and published 12 MSPs (Miao et al. 2022). Here, we propose a new timing campaign to continue monitoring these timed binaries and start the follow-up of 6 newly discovered MSPs. With this timing campaign, our long-term monitoring project can help us estimate the total mass of these pulsar systems, astrometric (parallax, proper motion), and post-Keplerian orbital parameters (P_b , OM , OM dot). We are applying for 81 hours to 18 MSPs."