

Proposal Abstract:

The intriguing subpulse drift behavior observed in multidrift pulsars poses a challenge to current radiation models. The in-depth study of multidrifting pulsars using high sensitivity telescopes is of great significance for understanding the radiation mechanism of pulsars. We propose employing FAST to observe several pulsars exhibiting multidrift behavior. The outcomes of high-sensitivity polarization observations will yield more reliable details, facilitating a deeper understanding of the variations in the magnetosphere and the radiation processes inherent to multidrift pulsars. Our proposal will involve singlepulse modeling of the radiative geometry of these pulsars. This proposal will allow us to simultaneously verify the radiative, polarization, and magnetospheric variations associated with the different drift modes.