Proposal Abstract:

Based on the archived FAST data, we found the existence of quasi-periodic micropulse phase aggregation in PSR B1933+16. This phenomenon provides new clues to our understanding of the geometry of the radio emission region, especially the fine structure of the emission region. However, this phenomenon needs more observations with quasi-periodic microstructures to be analysed, and whether it is a general phenomenon in micropulses. In order to study this phenomenon in detail, we propose a 4-hour observation of PSR J0546+2441, and 2-hour observations of PSR J2317+2149 and PSR J0754+3231, for a total of about 15,000 single pulses, which we would like to record in FAST using the 19-beam centre-beam receiver.