

Proposal Abstract:

The FAST Galactic Plane Pulsar Snapshot (GPPS) survey has discovered more than 560 pulsars. It is a significant challenge for timing so large number of new pulsars because of the limited telescope time. We have developed a new observation strategy to maximize the timing efficiency. By using FAST 19 beam receivers, it is possible to simultaneously observe multiple pulsars with a single pointing. This strategy enables the FAST telescope to operate with at least three times efficiency of normal observations. We propose to implement this strategy on timing 46 GPPS pulsars by only 14 FAST pointings.