

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 27.5 Hours
 Minimum Useful Time: 30 minutes

Proposal Title: Timing millisecond pulsars discovered by FAST

ABSTRACT:

We propose to use the Arecibo 305-m telescope to perform timing observations for 5 new millisecond pulsars (MSPs) discovered by Five-hundred-meter Aperture Spherical Telescope (FAST). These are high value pulsars from FAST and could lead to important scientific discoveries. We intend to time each pulsar for 11 sessions spanning six months in the September 2019 semester phase obtain their initial timing ephemerides and identify any interesting binaries. This pulsar timing campaign would also enable the FAST pulsar search team to timely release these discoveries to colleagues in the International Pulsar Timing Array community, facilitating further collaborations and contributing to the future detection of nanoHz gravitational waves.

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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1150 - 1730

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.