

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 4 Hours
 Minimum Useful Time: 50minutes

Proposal Title: Spectral and temporal study of slow pulsars discovered by FAST CRAFTS pulsar search team

ABSTRACT:

Inspired by a surge of slow pulsar discoveries from the Five-hundred-meter Aperture Spherical Telescope (FAST) pulsar survey, we propose to observe slow pulsars discovered by FAST in Arecibo sky measure their spectral indices and study their single pulses. These pulsars are likely close to the so-called ' pulsar death line' . It is conjectured that dying pulsars may have steep spectra and show nulling and mode changing behavior. Therefore, we propose to observe three recently discovered slow pulsars by FAST in drift scan survey. The proposed observation will precisely measure their spectral shape and reveal their temporal behavior at a single pulse level. This project asks for four hours of Arecibo time to study this new sample of dying pulsars.

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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

1150-1730MHz

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.