

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 40 Hours

Proposal Title: Exposing drifting subpulses from the slowest to the fastest pulsars

ABSTRACT:

Pulsar emission is surprisingly similar over the vast period and magnetic-field range from the 2-ms 10^8 -G recycled pulsars to the 6-s 10^{14} -G magnetar-like regular pulsars. We think the stability and speed of the subpulse drift seen over this whole range can discern between different mechanisms for pulsar emission. Using two new techniques to discern and interpret subpulse drift patterns in both dim and bright pulsars, we will take advantage of the Arecibo sensitivity at 1170 MHz and the unparalleled ASP bandwidth and sampling rate to investigate the relation between subpulse-drift speed and the pulsar period and magnetic field.

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Service Observing Request

Remote Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

- No
- Maybe
- Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1120-1220

1230-1470

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

This proposal requires coordination with GPS L3 at 1381 MHz.