

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 24 Hours

Proposal Title: Timing of two anomalous pulsars

ABSTRACT:

We request 24hr of observing time to carry out regular timing observations spanning a 12-month baseline on recently discovered 596-ms pulsar J2243+15 and the nearby 58-ms pulsar J2235+1506. PSR J2243+15, discovered in our on-going Arecibo search of EGRET error boxes, is either anomalously young or is a member of a binary system. The latter possibility is quite unusual for pulsars with its spin-down characteristics. Timing observations are essential for determining its true characteristics and whether or not it is indeed associated with the nearby unidentified EGRET source. PSR J2235+1506 was discovered 10 years ago in another Arecibo survey and is believed to be the remnant of a disrupted double neutron star system. Timing of this pulsar is crucial for an accurate measurement of its proper motion, which will help constrain the evolutionary history of the pulsar and perhaps help explain the unexpected paucity of these objects in the pulsar population.

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Service Observing Request

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

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

430 G L-wide 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

310 - 340

425 - 435

1150 - 1730

This proposal requires coordination with AFTWF within the band 425-435 MHz.