

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 150 Hours

Proposal Title: Timing of Pulsars Recently Discovered in 430-MHz Drift-Scan Search Data
ABSTRACT:

We request 150 hr of observing time to carry out regular timing observations spanning a 12-month baseline on pulsars recently discovered in 430-MHz drift-scan search data. Data processing is approximately half complete. Two of the seven pulsars discovered so far, J0610+21 and J1453+19, have periods of 55 and 5.8 ms and are likely to be recycled pulsars, especially interesting because of their timing stability and likelihood of having binary companions. Upon completion of the processing and confirmation observations (requested in a separate proposal), we expect to have on the order of 20 new pulsars. From timing observations of these new pulsars, we will be able to determine the spin and astrometric parameters of each pulsar to high accuracy, search for timing irregularities and establish the existence of any orbiting companions.

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Service Observing Request

Remote Observing Request

- | | | | |
|-------------------------------------|----------------------------|-------------------------------------|-------|
| <input checked="" type="checkbox"/> | None | <input type="checkbox"/> | No |
| <input type="checkbox"/> | All of the observing run. | <input type="checkbox"/> | Maybe |
| <input type="checkbox"/> | Part of the observing run. | <input checked="" type="checkbox"/> | Yes |
| <input type="checkbox"/> | Queue Observing | | |

Instrument Setup

430 G L-wide 430 CH receiver L-narrow S-band receiver S-low 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

320-340

420-440

1100-1600

2000-3000

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