

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 77 Hours
 Minimum Useful Time: 30 min

Proposal Title: Timing of 26 Radio Pulsars Discovered in the PALFA Survey

ABSTRACT:

The scientific potential of radio pulsars is enormous. For example, they have been used to provide tests of fundamental physics, and to study the interior of neutron stars, their evolution, and their emission. However, many of the applications of pulsars require regularly spaced timing observations to determine precise models of the stars' rotation. We request 77 hours spread (unevenly) over 12 months to establish timing models for 26 pulsars recently discovered in the PALFA survey. Observations will be carried out using the L-wide receiver, with the new PUPPI backend in coherent-dedispersion mode. These observations will be essential for identifying which pulsars should be studied in more detail in the future, and how such projects should be carried out to maximize scientific output.

Name	Institution	E-mail	Phone	Student
Patrick Lazarus	Max-Planck-Institut fuer Radioastronomie	plazarus@mpifr-bonn.mpg.de	+49 228 525 181	G

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.