

Technical Page

This proposal has been submitted before.

The previous proposal number is P2789.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 56.75 Hours
 Minimum Useful Time:

Proposal Title: Timing of pulsars discovered by the PALFA survey

ABSTRACT:

We request a total of 89.5 hours over the course of a year. We wish to derive precision timing solutions for 17 pulsars found in the PALFA survey. Of these, 14 were discovered in the last 6 months, in order to determine spin and binary parameters, and hence fundamental properties such as astrometry, ages, magnetic fields, and spin-down luminosities. Two of these are millisecond pulsars (MSPs) and/or binary pulsars, each with its own particular science potential, 6 are Rotating Radio Transients (RRATs), and 6 are long-period pulsars vital for population and Galactic studies. We also wish to continue regular timing observations of 3 pulsars; 2 are MSPs for which continued monitoring can reveal further properties relevant to determination of their respective types and evolutions, and one is a long-period pulsar, for which we request time to obtain significant measurements of its spin and astrometric properties.

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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: We will use the PUPPI pulsar backend.

RFI Considerations

Frequency Ranges Planned

1180-1780

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.