

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 10 Hours
 Minimum Useful Time: 45 minutes

Proposal Title: A precise measurement of the mass of PSR J1950+2414

ABSTRACT:

Millisecond pulsars are now known to have a much wider range of masses than assumed a few years ago (1.24-2.01 solar masses); there are indications that this range could be even wider. Therefore, when we attempt to measure the mass of a MSP, we never know what we will measure. PSR J1950+2414 is a new millisecond pulsar with an eccentric orbit discovered by the PALFA survey. The objective of this proposal is to make a dense set of timing measurements over one single 22-day orbit and measure the Shapiro delay. Combining this with ongoing observations which have already detected the precession of periastron for this system will yield a very precise mass measurement for this pulsar, and help determine the nature of its companion.

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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: none

RFI Considerations

Frequency Ranges Planned

1150-1730

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