

Technical Page

Proposal Type: Urgent
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 3 Hours
 Minimum Useful Time: 20 min

Proposal Title: Establishing a phase-coherent timing solution for a bright, unusual MSP

ABSTRACT:

We have discovered a bright nearby eclipsing millisecond pulsar with a non-degenerate companion, a key “missing link” in the evolution of low-mass X-ray binaries into radio millisecond pulsars. Its companion is a 17th magnitude star, and the system appears to have had an accretion disc as recently as 2001. Phase-coherent timing promises to elucidate the dynamics and the energetics of this system. We request six half-hour L-band observations over the next two months.

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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 plan to use the ASP coherent dedispersion backend as well as the WAPPs.

RFI Considerations

Frequency Ranges Planned

1070-1170

1270-1370

1400-1430

1470-1570