

Technical Page

Proposal Type: Urgent
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 22.5 Hours
 Minimum Useful Time: 75 min

Proposal Title: Urgent Proposal: A Millisecond Pulsar in a Triple System

ABSTRACT:

We have discovered a relatively bright millisecond pulsar in a triple stellar system as part of the GBT Driftscan pulsar survey. The inner orbit comprises a millisecond pulsar in a relatively compact orbit with a white dwarf. Yet this inner binary is likely being orbited by a low-mass companion star in an orbit with a period of hundreds of days. This unique pulsar, and the precision measurements of secularly varying orbital parameters provided by millisecond pulsar timing, will be a testbed for the dynamics of 3-body systems and will eventually result in full orbital solutions and masses of all the components. We request regular timing observations starting immediately until the end of May 2012.

Name	Institution	E-mail	Phone	Student
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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 PUPPI.

RFI Considerations

Frequency Ranges Planned

1120-1720

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

This proposal requires coordination with GPS L3 at 1381 MHz.