

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 73.5 Hours
 Minimum Useful Time: 75 min

Proposal Title: Timing 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 timing observations over 15 months.

Name	Institution	E-mail	Phone	Student
Ingrid H. Stairs	University of British Columbia	stairs@astro.ubc.ca	604-822-6796	no

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.