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.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
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<tbody>
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</tbody>
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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.