Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
General Category: Pulsars
Observation Category: Galactic
Total Time Requested: 6.75 Hours
Minimum Useful Time: 0.5 h

Proposal Title: Timing a New Millisecond Pulsar Found in a Low-Latitude Fermi Unidentified Source

ABSTRACT:

We propose to time the new millisecond pulsar J1845+02 over a year. This MSP was discovered in a Fermi unidentified source in our search of such sources at low Galactic latitudes (p2860). The rotation period is 4.3 ms, and the orbital period is $\sim 5.3$ days. This pulsar is a good candidate for Pulsar Timing Arrays as it is relatively bright, has sharp profile features, and is not in an interacting binary system. A radio timing solution will also enable us to search for gamma-ray pulsations in Fermi data.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
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<tbody>
<tr>
<td>Julia Deneva</td>
<td>George Mason University</td>
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<td>6075925443</td>
<td>no</td>
</tr>
</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: none

RFI Considerations
Frequency Ranges Planned

1100 - 1900

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.
This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz.
This proposal requires coordination with GPS L3 at 1381 MHz.