Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
General Category: Pulsars
Observation Category: Galactic
Total Time Requested: 12.5 Hours
Minimum Useful Time: 1 hr

Proposal Title: Plasma lensing effects toward the pulsar B0823+26

ABSTRACT:
Plasma lenses are known to affect radio waves from pulsars and quasars and may be implicated in the detection of fast radio bursts (FRBs). The relatively nearby pulsar B0823+26 is known to exhibit dramatic rearrangements in its dynamic spectrum. Although this has been reported before, these episodes have not been studied with modern analysis techniques (secondary spectrum) or with fully capable backends such as the Mock spectrometers. We propose a modest set of observations to attempt to detect a lensing event or events. We will observe at three frequencies (327 MHz, 430 MHz, and 1400 MHz) in order to maximize the information about the lensing event, if encountered.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
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</thead>
<tbody>
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</tr>
</tbody>
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Remote Observing Request

- [X] Observer will travel to AO
- [ ] Remote Observing
- [ ] In Absentia (instructions to operator)

Instrument Setup

430 G L-wide 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned