This proposal has not been submitted before.

Proposal Type: Regular
General Category: Pulsars
Observation Category: Galactic
Total Time Requested: 11 Hours
Minimum Useful Time: 1.5 hours

Proposal Title: Timing a Radio Pulsar Counterpart of Fermi PSR J0357.8+3205 Discovered by FAST

ABSTRACT:
We propose exploratory AO observations to determine the feasibility of a longer term timing project for a recently discovered pulsar J0357+3205. This pulsar was found in a targeted observation with the FAST telescope at low frequencies and is consistent with the known properties of the Fermi gamma ray pulsars J0357.8+3205, and confirmed the detection using Arecibo DDT time in 5000s with the 327MHz system, showing that the proposed timing program is feasible. Because FAST is currently commissioning an L-band system, and 0.3-1 GHz observations are currently not available with it, we would like to use Arecibo to follow up this source. The Arecibo timing capability at 400 MHz will make the key contribution toward understanding the origin of this unique source. We propose to use the 327 MHz receiver with the PUPPI backend using two hours’ each integration. For 5 timing observations with overhead, a total of 11 hours is requested.

<table>
<thead>
<tr>
<th>Name</th>
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<th>Student</th>
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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

327
Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned