Technical Page

Proposal Type: Long-term
General Category: Pulsars
Observation Category: Galactic
Total Time Requested: 10 Hours

Proposal Title: One more orbit: long-term timing of PSR J0407+1607

ABSTRACT:
We request 10 hr of Arecibo time spread over the next 2 years to extend our existing database of time-of-arrival measurements for the 1.8-yr binary pulsar J0407+1607. The goal of these observations is to measure the proper motion and rate of change of the projected semi-major axis. From this we should be able to constrain the orbital inclination of the binary system with respect to the plane of the sky and the masses of the pulsar and its companion. In addition to providing invaluable input for future constraints of the strong equivalence principle, the proper motion data would be useful for studies of the origin and evolution of low-mass binary pulsars.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duncan R Lorimer</td>
<td>University of Manchester</td>
<td><a href="mailto:drl@jb.man.ac.uk">drl@jb.man.ac.uk</a></td>
<td>+44-1477-572675</td>
<td>no</td>
</tr>
</tbody>
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Service Observing Request

- [X] None

Remote Observing Request

- [ ] All of the observing run.
- [ ] Part of the observing run.
- [X] Queue Observing

Yes

- [ ] No
- [ ] Maybe

Instrument Setup

430 G L-wide 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned