Proposal Identification No.:  P2019
Date Received:  2004-Oct-02 02:54:04

Technical Page

Proposal Type:  Regular
General Category:  Pulsars
Observation Category:  Galactic
Total Time Requested:  43.25 Hours

Proposal Title:  High-Precision Timing of Parkes Multibeam Millisecond Pulsars: Velocities and Evolution

ABSTRACT:

We request observations roughly every 25 days in the LST range 17:45 – 19:30, over one year, to time three millisecond pulsars discovered in the Parkes Multibeam Pulsar Survey. Our primary goals are to measure proper motions, which may lead eventually to geometric constraints on the orbital inclinations, and to provide new high-precision time-of-arrival for the global pulsar timing array project. We request an additional set of 15 observations, LST 18:15 – 19:30, spaced 4 days apart, to attempt to detect the Shapiro delay in one of the systems. We plan to observe with the WAPPs and the coherent-dedispersion ASP instrument.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingrid H. Stairs</td>
<td>University of British Columbia</td>
<td><a href="mailto:stairs@astro.ubc.ca">stairs@astro.ubc.ca</a></td>
<td>604-822-6796</td>
<td>no</td>
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</tbody>
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Service Observing Request | Remote Observing Request

- [x] None
- [ ] All of the observing run.
- [ ] Part of the observing run.
- [ ] Queue Observing
- [ ] No
- [ ] Maybe
- [x] Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Description of Observer Equipment:  We will use ASP and the WAPPs.

Special Equipment or setup:  none

RFI Considerations
Frequency Ranges Planned

1120-1520

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz.
This proposal requires coordination with GPS L3 at 1381 MHz.