Proposal Identification No.: P2176
Date Received: 2005-Oct-03 17:22:25

Technical Page

Proposal Type: Long-term
General Category: Pulsars
Sub-Category: Continuum
Observation Category: Galactic
Total Time Requested: 190 Hours

Proposal Title: Timing the PSR J1741+1354 binary system

ABSTRACT:
Using the Arecibo telescope we have recently determined the timing solution of PSR J1741+1351, a 3.74-ms pulsar in a 16-day binary system discovered three years ago with the Parkes telescope. The timing has yielded intriguing results: the detection of the Shapiro delay and what could be by far the largest pulsar mass ever detected. If confirmed with further observations and the use of coherent dedispersion, this result could revolutionize our understanding of matter at supra-nuclear densities. We also emphasize the extraordinary timing precision already achieved, which, when improved with the use of coherent dedispersion, might make this the most precisely timed pulsar ever.

Name | Institution | E-mail | Phone | Student
--- | --- | --- | --- | ---
Paulo C Freire | Arecibo Observatory | pfreire@naic.edu | ext. 358 | no

Service Observing Request | Remote Observing Request
--- | ---
X | None | No
□ | All of the observing run. | Maybe
□ | Part of the observing run. | Yes
□ | Queue Observing | |

Instrument Setup
430 G L-wide S-low

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned