

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 132 Hours
 Minimum Useful Time: 1.5

Proposal Title: Precision Millisecond Pulsar Timing

ABSTRACT:

We will extend our high precision millisecond pulsar timing program by observing nine millisecond pulsars at six-week intervals over the upcoming year. Dual-frequency observations will use the ASP and WAPP data acquisition systems, improving on the precision of previous pulsar timing work. Scientific payoffs will include improved neutron star mass measurements, more precise pulsar distance measurements, and more stringent limits on (or detections of) the gravitational wave background. In addition to regularly spaced observations, we request two extra days to explore the possibility of exploiting the newly available 800 MHz WAPP bandwidth capability to observe millisecond pulsars with the S-high and C-band receivers.

| Name | Institution | E-mail | Phone | Student |
|-------------|-------------------|--------------------|---------------|---------|
| Davd J Nice | Bryn Mawr College | dnice@brynmawr.edu | (610)526-5361 | no |

Remote Observing Request

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

Instrument Setup

430 G L-wide S-low C 327 S-high

Atmospheric Observation Instruments:

Description of Observer Equipment: ASP data acquisition system

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

310-350

420-440

1120-1620

3000-4000

4000-6000