

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Sub-Category: Continuum
 Observation Category: Galactic
 Total Time Requested: 70 Hours

Proposal Title: Timing Newly Discovered Millisecond Pulsars III: M3

ABSTRACT:

Our group has been conducting deep searches of 22 globular clusters at L-Band with time awarded to us for Arecibo proposals P1436 and P1636. The observations were taken the summers of 2001 and 2002 with the WAPP instrument. We are analyzing nearly 5TB of data accumulated so far using a dedicated 52-node Beowulf-style cluster that we have built at McGill University. We have also been timing four millisecond pulsars discovered in this survey (M5C, M13C, M13D, and M71A) with time awarded for Arecibo proposals P1640 and P1690. In addition to these pulsars, we are pleased to announce the discovery of three more binary millisecond pulsars in M3 – the first pulsars to be discovered in this globular cluster. The first two discoveries were made in data obtained during the summer of 2002 and the third was discovered in GBT data taken in 2002 March. We request a total of 70hr of observations at L-Band over the course of the next year, scheduled in an initial 10-day intensive observing session, and approximately bi-weekly thereafter. We will make use of the WAPP as well as one or more other pulsar backends recording simultaneously.

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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1125-1225

1425-1525

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

This proposal requires coordination with GPS L3 at 1381 MHz.