

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 20 Hours

Proposal Title: Searching for pulsars in Globular Clusters at 327 MHz.

ABSTRACT:

We request 20 hours of telescope time to search for pulsars in a set of four globular clusters visible from Arecibo at a frequency of 327 MHz. In a previous small-scale 327-MHz survey, carried out by some of the proposers and Adam Mott (for the latter's REU summer project), the globular clusters M3, M5 and M13 were observed twice. One new millisecond pulsar was found in the globular cluster M5 ($P = 2.988$ ms) and a good new candidate was uncovered in M3. We therefore wish to make a systematic survey for pulsars in globular clusters with low DMs and low sky temperatures, i.e., with high Galactic latitudes. Instead of aiming at a large number of clusters, this survey will concentrate on the development and certification of baseband search techniques, which will render them sensitive to sub-millisecond pulsars at DMs up to 100 cm⁻³ pc, despite the low sky frequencies employed.

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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

327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

