

Technical Page

This proposal has been submitted before.

The previous proposal number is p1693, p2781.

Proposal Type: Large
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 200 Hours
 Minimum Useful Time: 45 min

Proposal Title: A Continuing Drift-Scan Pulsar Search at 327 MHz (AO327)

ABSTRACT:

The Arecibo 327 MHz drift pulsar survey (AO327) began in 2010 when a platform repair made a lot of time available under conditions of limited telescope mobility. The survey continued after the repair was finished, using unallocated or short-notice telescope time to search for pulsars outside of the Galactic plane. AO327 has so far discovered 33 pulsars in the portion of data that has been processed. The discoveries include four millisecond pulsars, one of which is an extremely stable rotator and has been included in Pulsar Timing Arrays for the detection of gravitational waves. Based on comparisons with similar surveys conducted with the Green Bank telescope, we estimate that we will find 135 new pulsars in the Arecibo sky at declinations <28 deg. We propose to extend the project to initially complete searching the field between declinations of -0.5 and 28 deg, and eventually to cover the entire Arecibo sky.

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Remote Observing Request

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

Instrument Setup

327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

293-361