

Technical Page

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

Proposal Title: A dual-frequency search for massive binary pulsars

ABSTRACT:

We request 20 hours of Arecibo time to carry out a pilot search for pulsars in five most promising open clusters. These star forming regions have an environment that will highly enhance the probability of hosting a pulsar in a binary system with a high-mass companion star (B-star, neutron star or black hole). To maximize the odds of finding pulsars we propose 430 MHz and 1410 MHz observing sessions. As we demonstrate, the proposed search observations will be sensitive to high-velocity pulsars, as well as sources at the low end of the luminosity function.

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Instrument Setup

430 G L-wide 430 CH receiver L-narrow

Atmospheric Optical Instruments:

Special Equipment or setup: WAPP, PSPM, AOFTM, Exabyte/Mammoth tapes

RFI Considerations

Frequency Ranges Planned

426 - 434
 1100 - 1500