

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 14 Hours

Proposal Title: Pulsar High Frequency Polarimetry at Arecibo: A Pilot Project

ABSTRACT:

We request about 14 hrs of observing time to carry out high quality quasi-simultaneous multi-frequency single-pulse polarization observations of 4 pulsars in the frequency range between 430 MHz to 10 GHz. This proposed pilot study would allow us to evaluate as well as characterize the performance and polarization properties of the 430MHz, L-wide, S-low, S-high, C and X-band receivers. We believe that such a study is essential before taking up more detailed investigation aimed at studying the origin of the decay of the polarized component of pulsar radio emission with frequency as well as the dependence of dynamic emission properties with frequency (see P1694). The results of this investigation could be useful to other pulsar observers who wish to calibrate pulsar polarization observations.

Name	Institution	E-mail	Phone	Student
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Service Observing Request

Remote Observing Request

- | | |
|---|--|
| <input type="checkbox"/> None
<input type="checkbox"/> All of the observing run.
<input checked="" type="checkbox"/> Part of the observing run.
<input type="checkbox"/> Queue Observing | <input checked="" type="checkbox"/> No
<input type="checkbox"/> Maybe
<input type="checkbox"/> Yes |
|---|--|

Instrument Setup

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

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

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

This proposal requires coordination with GPS L3 at 1381 MHz.

This proposal requires coordination with AFTWF within the band 425-435 MHz.