

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 8 Hours

Proposal Title: Investigating New Transient Radio Sources

ABSTRACT:

We have discovered a new class of transient radio sources from a single pulse search of the Parkes Multibeam Pulsar Survey data. Of the twelve new sources, two are in the Arecibo declination range. For one of these two objects, we are able to measure a period and period derivative, indicating a neutron star origin. Our analysis relies on the single pulses themselves as this source is not detectable through its time-averaged emission. Arecibo observations will allow us to constrain the amplitude distribution of the pulses from this object and to determine its relationship to known radio pulsars. The other of the new objects is a more sporadic emitter, with only four pulses detected at four different epochs. Arecibo observations are crucial for localizing the source, determining the amplitude distribution of the pulses, and understanding the nature of this unusual bursting object.

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Service Observing Request

Remote Observing Request

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

- No
- Maybe
- Yes

Instrument Setup

L-wide ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1225 - 1675

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

This proposal requires coordination with GPS L3 at 1381 MHz.