

Technical Page

This proposal has not been submitted before.

Proposal Type: Director Discretionary Time
 General Category: Pulsars
 Observation Category: Fast Radio Burst
 Total Time Requested: 20 Hours
 Minimum Useful Time: 1 hr

Proposal Title: Precise localization of Fast Radio Burst 121102 using Arecibo to guide the VLA
ABSTRACT:

Though close to two dozen Fast Radio Bursts have been detected to date, not a single one has been localized to arcsecond precision. Such localization is key to understanding this phenomenon because it will allow multi-wavelength association - possibly with a host galaxy. We request 20 hrs of DDT observations using Arecibo+L-Wide+PUPPI in order to observe simultaneously with a VLA campaign to localize the unique repeating Fast Radio Burst 121102. Arecibo is potentially critical to this campaign because its unparalleled sensitivity can identify weak bursts and better inform where to focus attention in the enormous VLA imaging data set (40TB of 5ms visibility dumps!).

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Remote Observing Request

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

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1150-1730 MHz (full L-Wide)

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

This proposal requires coordination with GPS L3 at 1381 MHz.