

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Extragalactic
 Total Time Requested: 100 Hours
 Minimum Useful Time: 1

Proposal Title: Observation of a new repeating Fast Radio Burst discovered by CHIME/FRB and a search for repetition from low declination bursts

ABSTRACT:

Fast Radio Bursts are bright, millisecond radio transients, which remain mysterious despite an expanding catalog of bursts. The discovery of repeating burst FRB 121102 opened a new window to more detailed study of FRB properties, and detection of further repeating FRBs promises to expand our understanding further. CHIME/FRB is a new project, searching for FRBs between 400-800 MHz with 0.983 ms time resolution and incoherent dedispersion. CHIME/FRB recently published 13 new bursts including a new repeater, but has discovered many more bursts including 9 more repeaters. We propose to observe a new repeating Fast Radio Burst (FRB) detected by CHIME/FRB, FRB 190116.190116.J1249+27 as well as ten “repeater-like” candidates identified via burst morphology using the Arecibo Observatory 327 MHz receiver, followed by the ALFA receiver. Observing with AO will allow us to search for repeated bursts with much higher sensitivity and time resolution, improving our understanding of burst structure

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Remote Observing Request

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

Instrument Setup

327 ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

302 - 352,
1225 - 1525

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

This proposal requires coordination with GPS L3 at 1381 MHz.