Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
General Category: Astronomy
Observation Category:
Total Time Requested: 0 Hours
Minimum Useful Time:

Proposal Title: ALFABURST: Commensal searches for FRBs with ALFA

ABSTRACT:

Recent discoveries of Fast Radio Bursts at Parkes have confirmed an exciting new class of radio sources with extraordinary potential as cosmological probes. To make further breakthroughs in this area, by finding counterparts at other wavelengths, it is necessary to detect the sources as rapidly as possible. We plan to install a real-time radio burst detection system (ALFABURST) on the Arecibo telescope. The system is designed to function commensally with observations with the Arecibo L-band Feed Array and makes use of the imminent arrival of the new SETI spectrometer currently under development at UC Berkeley, as well as an established transient detection pipeline on the Low Frequency Array. Based on recent estimates of burst rates over the sky, we expect to detect roughly one burst every 48 hours.

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<tr>
<th>Name</th>
<th>Institution</th>
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<th>Student</th>
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<tbody>
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<td>no</td>
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Remote Observing Request

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

Instrument Setup

- ALFA

Atmospheric Observation Instruments:

Description of Observer Equipment: SERENDIP6
Special Equipment or setup:  none

RFI Considerations

Frequency Ranges Planned

1225-1525