

## Technical Page

This proposal has been submitted before.

The previous proposal number is P3054.

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Extragalactic  
 Total Time Requested: 60 Hours  
 Minimum Useful Time: 1 hour

**Proposal Title:** Understanding the Nature of the Repeating Fast Radio Burst FRB 121102

*ABSTRACT:*

Fast radio bursts (FRBs) are short-duration, extragalactic pulses, and although they were first discovered almost a decade ago, the astrophysical origin of FRBs is still unclear. Most models of FRB origins involved a cataclysmic event, in part because no FRB had been observed to repeat. That changed when additional pulses from FRB 121102, the first FRB to be discovered by the Arecibo radio telescope, were observed in follow-up observations with Arecibo in May and June of 2015. This observation is inconsistent most theories of FRB origins and strongly suggests a neutron star origin. We propose to continue monitoring FRB 121102 with biweekly observations to better understand some of its unusual properties including apparent episodic emission and the variable spectral behavior, as well as try and determine a rotation period.

Name	Institution	E-mail	Phone	Student
Laura G. Spitler	Max Planck Institute for Radio Astronomy	lspitler@mpifr-bonn.mpg.de	+49228525314	no

### 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

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.