

## Technical Page

This proposal has not been submitted before.

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 9.33 Hours  
 Minimum Useful Time: 2H 20m

**Proposal Title:** Revisiting the pulsars in M15

*ABSTRACT:*

We request 18.66 hours of Arecibo radio telescope time to determine the spectral indices and polarimetric properties of the pulsars in M15. For the pulsar in a double neutron star system, M15C, this needs to be done at several epochs: previous timing observations have shown consistent changes in the flux density and pulse profile due to geodetic precession. The proposed observations will allow a detailed monitoring of these changes, which will be necessary for the determination of the rotational geometry of the pulsar and correction of the effects of geodetic precession in the timing of this system. Moreover, we will be able to significantly extend previous phase-coherent timing solutions for all the other pulsars of M15. M15A and D are of particular interest because of their vicinity to the center of the cluster; where they can be used to probe the gravitational field.

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### Remote Observing Request

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

### Instrument Setup

L-wide 327

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

### RFI Considerations

## **Frequency Ranges Planned**

310-340

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.