

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 16 Hours  
 Minimum Useful Time: 8

**Proposal Title:** Exploratory timing observations of four millisecond pulsars

*ABSTRACT:*

We request 16 hr of Arecibo time to determine the optimal observing frequencies and inherent timing precision of four millisecond pulsars discovered in upgrade drift-scan searches. The goal of these observations is to ascertain whether the pulsars are suitable additions for the millisecond pulsar timing array: a worldwide effort with the goal of detecting nHz gravitational waves within the next decade. Crucial to the success of the array is to maximize the number pulsars with sub-microsecond timing precision.

Name	Institution	E-mail	Phone	Student
Duncan R Lorimer	West Virginia University	Duncan.Lorimer@mail.wvu.edu	304-293-3422	no

### Remote Observing Request

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

**Instrument Setup**

430 G                      L-wide                      S-band receiver    S-low                      327                      S-high

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**