

## Technical Page

This proposal has not been submitted before.

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category:  
 Total Time Requested: 6 Hours  
 Minimum Useful Time: 30 minutes

**Proposal Title:** Continued timing of a millisecond pulsar in a stellar triple system

*ABSTRACT:*

The millisecond pulsar hierarchical triple system 0337+1715 has gotten much more exciting over the past year, thanks in large part to Arecibo timing observations. We now have a full high-precision timing solution of the system, with the timing model based on accurate three-body gravitational simulations. The model has already provided the orbital inclinations and masses of all three stars to high precision. Over the coming year we will begin to measure secular changes to the orbits due to three-body effects and will make by far the best test of the Strong Equivalence Principle (SEP) to date. This test will have important implications for basic physics, and the extension to the Arecibo timing baseline will be critical for setting a tight and robust limit on SEP violations.

Name	Institution	E-mail	Phone	Student
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### Remote Observing Request

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

### Instrument Setup

430 G L-wide

**Atmospheric Observation Instruments:**

**Description of Observer Equipment:** PUPPI

**Special Equipment or setup:** none

**RFI Considerations**

## Frequency Ranges Planned