

Technical Page

Proposal Type: Long-term
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 12 Hours
 Minimum Useful Time: 30 min

Proposal Title: Long-term timing of PSR J0407+1607

ABSTRACT:

We request 12 hr of Arecibo time over the next 3 years to extend our existing time-of-arrival measurements for the 1.8-yr binary pulsar J0407+1607. These observations will refine our preliminary measurements of the proper motion and rate of change of the projected semi-major axis. We will then be able to constrain the orbital inclination of the binary system with respect to the plane of the sky and the masses of the pulsar and its companion. In addition to providing invaluable input for future constraints of the strong equivalence principle, the proper motion data would be useful for studies of the origin and evolution of low-mass binary pulsars.

Name	Institution	E-mail	Phone	Student
Duncan R Lorimer	West Virginia University	Duncan.Lorimer@mail.wvu.edu	3042933422	no

Remote Observing Request

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

Instrument Setup

430 CH receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned