

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 35 Hours
 Minimum Useful Time: 1.00 hr

Proposal Title: Timing and Profile Measurements of the Relativistic Binary Pulsar B1913+16
ABSTRACT:

PSR B1913+16 is the first known binary pulsar. It has been the best existing laboratory for testing general relativity and other relativistic theories of gravitation for most of the time since its discovery (perhaps finally bested in some ways by the double pulsar system J0737-3035A/B). Because of its intrinsically weak emission, the vast majority of observations of PSR B1913+16 have been carried out at Arecibo. We propose to perform an intensive 14-day set of timing, profile, and HI absorption observations of this pulsar in order to continue our studies of relativistic gravitation and of the pulsar emission beam before the pulsar beam precesses out of our line of sight and disappears.

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 S-low

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

420-440 MHz
1120-1220 MHz
1320-1620 MHz
2300-2700 MHz

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.