

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 27 Hours

**Proposal Title:** Characterizing Orbital Torques and the Origin of X-ray Emission in the Black Widow Pulsar

*ABSTRACT:*

We propose a series of monitoring observations of the original eclipsing millisecond binary pulsar B1957+20. Our primary goal is to support an X-ray search for pulsations to be performed with the XMM-Newton telescope; that approved program will be scheduled sometime in the second half of 2005. Our secondary goal is to extend past monitoring campaigns to characterize long-term variations in the system's orbital and spin behavior, the origins of which remain a mystery.

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**Service Observing Request**

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

**Remote Observing Request**

- No
- Maybe
- Yes

**Instrument Setup**

430 G          610                                  327

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** ASP and WAPP

**RFI Considerations**

**Frequency Ranges Planned**