Proposal Identification No.: P2066  
Date Received: 2005-Feb-02 05:12:54

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.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zaven Arzoumanian</td>
<td>USRA, NASA-GSFC</td>
<td><a href="mailto:zaven@milkyway.gsfc.nasa.gov">zaven@milkyway.gsfc.nasa.gov</a></td>
<td>301-286-2547</td>
<td>no</td>
</tr>
</tbody>
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Service Observing Request

- [X] None
- [ ] All of the observing run.
- [ ] Part of the observing run.
- [ ] Queue Observing

Remote Observing Request

- [ ] No
- [ ] Maybe
- [X] Yes

Instrument Setup

430 G 610 327

Atmospheric Observation Instruments:

Special Equipment or setup: ASP and WAPP

RFI Considerations

Frequency Ranges Planned