

Technical Page

Proposal Type: Urgent
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 5 Hours
 Minimum Useful Time: 20 min

Proposal Title: A Millisecond Milestone: Discovery of an LMXB/MSP Missing Link

ABSTRACT:

Using the GBT, we have very recently discovered a 1.69 ms radio pulsar in a binary system. This system has previously been classified as an LMXB with a G star companion, and shows evidence for having had an accretion disc as recently as 2001. In addition to the simple fact of radio pulsations, we observe flux and timing variations that may be probing gas in the system, accretion torques, or something unknown. Here we request observations to monitor the source, maintain phase coherent timing, and explore these bizarre flux and timing variations around the whole binary orbit.

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Remote Observing Request

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

Instrument Setup

327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

300 - 350