

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 27 Hours
 Minimum Useful Time: 30 minutes

Proposal Title: Catching the re-activation of PSR J1023+0038 as a radio pulsar

ABSTRACT:

The system PSR J1023+0038 is the first of a growing class of systems observed to transition between radio pulsar and LMXB-like states. In the space of less than a month in 2013 it changed from an eclipsing binary millisecond pulsar system to one which has evidence for an accretion disc and a jet and which no longer emits pulsed radiation. Anticipating that the system will first become visible at high frequencies we propose high-cadence monitoring with Arecibo to catch its transition back to a radio pulsar.

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Remote Observing Request

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

Instrument Setup

C

Atmospheric Observation Instruments:

Special Equipment or setup: We would much prefer to use PUPPI, though we are aware that this combination - PUPPI at 4 GHz - is not currently supported. We can fall back to the Mock spectrometers if necessary, and have in fact observed with this configuration already.

RFI Considerations

Frequency Ranges Planned

4000-5000