

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 18 Hours

Proposal Title: Timing of a 41-ms Pulsar Recently Discovered in 430-MHz Drift-Scan Search Data

ABSTRACT:

We request 18 hr of observing time to carry out regular timing observations spanning a 12-month baseline on a recently discovered 41-ms pulsar. Its spin period and high latitude suggest that it is likely to be recycled and could even be a double neutron star binary. Timing recycled pulsars is important because of their rarity, timing stability, and likelihood of having binary companions. If the pulsar is a relativistic binary, it will provide invaluable tests of general relativity. The proposed observations will reveal the nature of this new pulsar and determine the spin, astrometric and orbital parameters of this system to high precision.

Name	Institution	E-mail	Phone	Student
David J Champion	Manchester University	champion@jb.man.ac.uk	+44 (0) 1477 57 2657	G

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 CH receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

420 - 440

This proposal requires coordination with AFTWF within the band 425-435 MHz.