

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 24 Hours
 Minimum Useful Time: 60 mins

Proposal Title: High-recision timing of a double neutron star system

ABSTRACT:

We request 24 \tilde{h} ours over a 12-month baseline to continue regular timing observations of a relativistic binary pulsar system, J1829+2456. Our timing observations so far determined a minimum companion mass of 1.22 Msun which makes it likely that the companion is a neutron star. Continued timing of J1829+2456 will measure the proper motion and provide further constraints on the time dilation/gravitational redshift parameter, gamma. These will provide vital constraints on the system geometry, birth spin period of J1829+2456 and the kick produced during the supernova.

Name	Institution	E-mail	Phone	Student
David J Champion	McGill	champion@physics.mcgill.ca	(514) 398-6520	no

Remote Observing Request

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

Instrument Setup

L-wide 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

310 - 340
1150 - 1730

This proposal requires coordination with GPS L3 at 1381 MHz.