Proposal Title: Deep observations of a new part-time pulsar, PSR J1832+0029

ABSTRACT:

We request 2.5 hours to carry out deep Arecibo observations of PSR J1832+0029, a recently discovered pulsar from the Parkes multibeam survey. This 534-ms pulsar displays similar characteristics to the 'part-time pulsar' B1931+24 which has recently been shown to switch between on and off states in a quasi-periodic fashion with a timescale of 1 month. The goal of these observations is to place very stringent upper limits on (or possibly detect very low levels of) the flux density from PSR J1832+0029 when it is in an off state. Such a limit is essential to constrain the plasma flow out of the magnetosphere during the shut-down of normal radio emission and hence to understand any remaining contribution of a pulsar wind torque to the observed pulsar spin down.

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<tr>
<th>Name</th>
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Remote Observing Request

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

Instrument Setup

- L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned

1150-1730

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz.

This proposal requires coordination with GPS L3 at 1381 MHz.