

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 25 Hours

**Proposal Title:** Measuring Interstellar Pulse Broadening and Faraday Rotation for a New Sample of 44 Parkes Multibeam Pulsars

*ABSTRACT:*

We propose multifrequency observations of a new sample of 44 pulsars discovered in the Parkes multibeam survey, with the primary science goals of determining pulse broadening times and rotation measures and incorporating them into Galactic models for the electron density and magnetic field. This proposal is a natural follow-up to the previous projects P1423, P1427 and P1557; new data will double the number of lines of sight with such measurements in a narrow but deep region in the first quadrant of the Galaxy. From the pulse-broadening measurements we will better constrain the inner scale of electron density fluctuations and probe anomalous frequency scalings that have been identified for some objects.

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**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 G                      L-wide                      S-band receiver    S-low                      327

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**

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

This proposal requires coordination with GPS L3 at 1381 MHz.

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