

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 28 Hours

**Proposal Title:** Probing the Galaxy’s Electron Content and Magnetic Field Using Newly Discovered Pulsars

*ABSTRACT:*

We will determine the scattering properties, rotation measures, and spectral indices of recently discovered pulsars in a narrow but deep region in the first quadrant of the Galaxy. The scattering measurements will be used to create an improved model of the interstellar electron density. The rotation measures will be used to map out the Galactic magnetic field. Spectral index measurements will be useful in modeling the pulsar population and in determining future directions for pulsar searches. This proposal is a continuation of projects P1423 and P1427.

Name	Institution	E-mail	Phone	Student
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I do NOT want to do remote observing.

**Instrument Setup**

430 G      610      L-wide    430 CH receiver      S-band receiver    S-low

**Atmospheric Optical Instruments:**

**Special Equipment or setup:** several Mammoth 2 tapes

**RFI Considerations**

**Frequency Ranges Planned**

- 425-435 (50 MHz if a wider RF filter is available)
- 690-730 (ie, new receiver at 710 MHz) (\*)
- 1100-1550
- 2300-2500
- (\*) observations at this band be scheduled between AST: 0 hr and 6 hr

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.