

Proposal Identification No.: P2030

Date Received: 2014-Mar-03\_16:48:20

## Technical Page

This proposal has been submitted before.

The previous proposal number is P2030.

Proposal Type: Regular  
General Category: Pulsars  
Observation Category: Galactic  
Total Time Requested: 272 Hours  
Minimum Useful Time:

**Proposal Title:** Continuing the PALFA Galactic Plane Survey

*ABSTRACT:*

We propose to continue the PALFA survey of the Arecibo-visible Galactic Plane. The most sensitive pulsar survey ever done, PALFA is yielding high-impact science in a variety of astrophysical fields, including: fast radio bursts, high-precision tests of relativistic gravity theories, constraints on the equation-of-state of supra-nuclear matter, detectability of gravitational waves, and unification of the neutron star zoo. Additionally this survey constrains fundamental properties of the overall neutron-star population. PALFA has already discovered 132 pulsars, nearly doubling the number known in the survey region. For the coming year, we request a total of 272 hr of inner Galaxy time in order to complete our survey to  $|b| < 2.0$  deg, as well as to be secondary commensal partners with ongoing surveys of the outer Galactic Plane. With the requested inner Galaxy time we expect to discover an additional 40-80 radio pulsars and constrain models of the Galactic distribution of pulsars.

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### Remote Observing Request

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

### Instrument Setup

ALFA

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**

1215 - 1536

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

This proposal requires coordination with GPS L3 at 1381 MHz.