

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 100 Hours

Proposal Title: P-ALFA Commissioning and First Science

ABSTRACT:

We (the P-ALFA consortium) request 100 hours of telescope time in order to accomplish several tasks related to the commissioning of the ALFA system. We will do this by obtaining pulsar search data in the same mode that will be used in future large-scale surveys, employing the existing WAPP spectrometers. With search data, we can characterize the quality of data obtained with ALFA with respect to instrumental and RFI issues. Our request is for observing time along the Galactic plane, with two thirds at $40^\circ < l < 77^\circ$ longitude and $-0.35^\circ < b < 0.35^\circ$ latitude. This area contains a high density of pulsars so that, with our 134 sec integrations, we will detect significant numbers of weak pulsars. Only this will test the sensitivity of the system in the real-world conditions relevant for future large scale surveys. The remaining time request is at $170^\circ < l < 185^\circ$ and $-0.6^\circ < b < 0.6^\circ$. Through an end-to-end project of this type, we can contribute to development of the ALFA system for all users as well as develop our own procedures, algorithms, and databases to enable future large-scale L-band pulsar surveys at Arecibo.

Name	Institution	E-mail	Phone	Student
Fernando Camilo	Columbia University	fernando@astro.columbia.edu	212 854-2540	no

Service Observing Request

Remote Observing Request

- | | |
|---|--|
| <input checked="" type="checkbox"/> None
<input type="checkbox"/> All of the observing run.
<input type="checkbox"/> Part of the observing run.
<input type="checkbox"/> Queue Observing | <input checked="" type="checkbox"/> No
<input type="checkbox"/> Maybe
<input type="checkbox"/> Yes |
|---|--|

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1225-1525

This proposal requires coordination with GPS L3 at 1381 MHz.