Proposal Identification No.: P1944

Date Received: 2004-Feb-16 17:55:10

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.

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<tr>
<th>Name</th>
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<tbody>
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Service Observing Request  

- X  None
-  All of the observing run.
-  Part of the observing run.
-  Queue Observing

Remote Observing Request

- X  No
-  Maybe
-  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.