

Technical Page

Proposal Type: Commensal
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 1326 (w/ GALFACTS and AGES) Hours
 Minimum Useful Time:

Proposal Title: The Galactic Arecibo L-Band Feed Array HI (GALFA-HI) Survey
ABSTRACT:

Hydrogen is the basic baryonic building block of galaxies. Gas flows into the dark matter potential well of a galaxy, condenses in the disk in atomic form, and subsequently forms molecular material and then stars. Several crucial questions remain open as to how this process occurs and how stars subsequently shape the interstellar medium (ISM). We began the GALFA-HI Survey (originally called the Turn on GALFA Survey (TOGS)) in 2005 to map the kinematic and spatial distribution of our Galaxy’s neutral hydrogen and address these questions. GALFA-HI optimizes on Arecibo’s new commensal capabilities and observes with ALFALFA, AGES, and GALFACTS. It is commensally surveying HI over 13,000 sq. deg of the sky with a high angular and spectral resolution (4’ and 0.18 km/s) and wide bandwidth (+/- 700 km/s). This proposal is to complete the GALFA-HI Survey through commensal observations with AGES and GALFACTS and study the relationship of Galactic HI to stars and other Galactic components.

Name	Institution	E-mail	Phone	Student
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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

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

This proposal requires coordination with GPS L3 at 1381 MHz.