

Technical Page

This proposal has been submitted before.

The previous proposal number is A2703, A2749.

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 122 Hours
 Minimum Useful Time: 90 minutes

Proposal Title: Completing xGASS, the low stellar mass GASS extension

ABSTRACT:

The GALEX Arecibo SDSS Survey (GASS) was a large Arecibo program that measured the HI content of about 800 massive ($M^* > 1e10$ Msun) galaxies in the local Universe. We are now carrying out xGASS, which extends GASS to lower stellar masses ($1e9 < M^* < 1e10$ Msun), to characterize the HI properties of galaxies in a regime where the contribution of cold gas and dark matter to the total mass is larger, and where the impact of environmental effects is expected to be stronger. Unlike the original GASS sample that was designed to explore the transition between star-forming and passive galaxies, this sample is designed to understand the basic physical processes governing star-forming galaxies. These observations will allow us to place key constraints on galaxy models and will contribute to a larger multi-wavelength effort aimed at understanding gas accretion and star formation histories of low-mass galaxies in the local Universe.

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

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1392 - 1406

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

This proposal requires coordination with GPS L3 at 1381 MHz.