

## Technical Page

Proposal Type:            Large  
 General Category:        Astronomy  
 Sub-Category:            Spectroscopy  
   Observation Category:  Extragalactic  
 Total Time Requested:   840 Hours  
 Minimum Useful Time:   90 minutes

**Proposal Title:**   GASS - The GALEX Arecibo SDSS Survey

*ABSTRACT:*

We propose the GALEX Arecibo SDSS Survey (GASS) a large targeted survey designed to measure the HI content of about 1000 galaxies at redshift  $0.025 < z < 0.05$  uniformly selected from the SDSS spectroscopic and GALEX imaging surveys to have stellar mass greater than  $1e10$  Msun. Our selected mass range straddles the recently identified “transition mass” ( $3e10$  Msun) above which galaxies show a marked decrease in their present to past-averaged star formation rates. GASS will produce the first statistically significant sample of massive “transition” galaxies with homogeneously measured stellar masses, star formation rates and gas properties. By observing these galaxies down to a low gas mass fraction limit (1.5%), GASS will provide new insight into the physical mechanisms that shape the stellar mass function, regulate gas accretion and quench further galaxy growth by conversion of gas into stars. GASS will be of considerable legacy value not only in isolation but also by complementing on-going HI-selected surveys.

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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**

1353-1386

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

This proposal requires coordination with GPS L3 at 1381 MHz.