

Technical Page

Proposal Type: Large
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 350 Hours

Proposal Title: A GALFA Study of the Disk-Halo Interface

ABSTRACT:

The path of baryons as they flow from the intergalactic medium into the disks of galaxies remains a key unknown in models of galaxy formation and evolution. How does the intergalactic gas cool in galactic halos? How do galaxies smoothly integrate this incoming material into the galactic disk to form stars? How much of this gas is subsequently expelled into the halo as hot gas? Our Galaxy represents the only place where these phenomena can be closely examined. Here, we propose a survey of two high-velocity cloud complexes at the disk/halo interface accessible by Arecibo, Complex C and the Anti-Center Complex. We will begin this survey with observations of the tail of Complex C, a large high-velocity cloud and a key tracer of the accretion of gas onto the Milky Way.

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Service Observing Request

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

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: GALFA spectrometer

RFI Considerations

Frequency Ranges Planned

1370 - 1470

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

This proposal requires coordination with GPS L3 at 1381 MHz.