Technical Page

Proposal Type:	Regular
General Category:	Astronomy
Sub-Category:	Spectroscopy
Observation Category:	Galactic
Total Time Requested:	90 Hours
Minimum Useful Time:	10

Proposal Title: Searching for cold gas in the Magellanic Stream

ABSTRACT:

Recent GALFA-HI mapping of the tip of the Magellanic Stream showed evidence for the existence of the multi-phase medium in this interacting tail of gas. To constrain temperature of the cool gas component, we propose sensitive HI absorption measurements against 10 radio continuum sources behind the Stream. Only one temperature measurement of the Stream gas close to the Magellanic Clouds exists since a few weeks ago (Matthews et al.). Arecibo can achieve much better sensitivity and is perfectly suited for such measurements.

Name	Institution	E-mail	Phone	Student
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Remote Observing Request

- [ ] Observer will travel to AO
- [x] Remote Observing
- [ ] In Absentia (instructions to operator)

Instrument Setup

L-wide ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.