

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 40 Hours

Proposal Title: A targeted search for a warm molecular phase in the Magellanic Stream
ABSTRACT:

We request **40 hours** of Arecibo observing time for a targeted, deep search for OH and CH emission at the northern tip of the Magellanic Stream. We will observe two sources, the first one is a local maximum in both 100 μm and HI intensity distributions, and the second one is the cometary cloud discovered in recent Arecibo HI observations. These observations are the first to aim at detecting molecular phase in emission in the Magellanic Stream. A positive, or negative detection of molecular component will have important ramifications for the understanding of the physical conditions in the Magellanic Stream.

Name	Institution	E-mail	Phone	Student
Snezana Stanimirovic	UC Berkeley	sstanimi@astro.berkeley.edu	510 642 3132	no

Service Observing Request

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

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1420 - 1720

3200 - 3400

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