

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Astronomy
 Observation Category: Extragalactic
 Total Time Requested: 15 Hours
 Minimum Useful Time: 2 hours

Proposal Title: Measuring the Gas in Star-forming Dwarf Galaxies around Milky Way Analogs
ABSTRACT:

The majority of the Milky Way’s satellite galaxies are devoid of gas and have ceased forming stars. However, the number and properties of Milky Way satellites disagree with galaxy formation models. We have begun a large optical survey to find satellites around 100 Milky Way analogs at distances between 20-40 Mpc. Our survey has so far found 28 satellites around 8 Milky Way analogs. Unlike the Milky Way, the majority of our satellites are star forming even though we would easily have found both star formation and quenched satellites. Satellite galaxies are expected to gas poor due to stripping from the parent galaxy and have lower average total masses as compared to field galaxies of similar luminosity. We propose L-band observations to determine the gas and dynamical masses of our star forming satellites in order test the environmental processes that impact them.

Name	Institution	E-mail	Phone	Student
Marla Geha	Yale University	marla.geha@yale.edu	203-432-5796	no

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