

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 25 Hours
 Minimum Useful Time: 1 hour

Proposal Title: The faint LSB galaxy population in the nearby Lynx-Cancer void
ABSTRACT:

Dwarf galaxies in voids, where galaxy properties should be well preserved, are the best for studies of the mass function and the total number density of low-mass galaxies, which can be compared with cosmological galaxy formation model predictions. The large voids studied are distant, however, and can only be probed down to galaxy luminosities of $L^*/50$. To go much deeper, we constructed a sample down to $L^*/8000$ ($M_B = -12$) of 80 galaxies with known redshifts in the nearby Lynx-Cancer void ($D=18$ Mpc), 4 of which we found through NRT HI and BTA H-alpha observations. As a pilot program for Arecibo, we selected a hundred faint ($B = 18.5-19.5$) candidate Lynx-Cancer void LSB galaxies without known redshifts, which if they reside in this void, have $M_B = -12$ to -14 mag. These data will improve our knowledge of the properties of the faintest void galaxies.

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Remote Observing Request

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

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1350-1430

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