

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category:
 Total Time Requested: 50 Hours

Proposal Title: Completing the HI observations of late-type galaxies in the Virgo cluster
ABSTRACT:

We aim to obtain HI detections or significant upper limits (rms~0.2-0.4 mJy at 5 km/s resolution) for a complete sample of 30 late-type galaxies in the Virgo cluster. These comprise all of the 118 late-type galaxies selected from an optically complete sample by the ISO consortium that were not observed, or detected, in HI. The existing 21-cm line data for these 30 objects have an rms noise level of about 1 mJy, which we aim to improve significantly, resulting in an estimated 3σ detection limit of about $6 \cdot 10^6 M_{\odot}$ at $D=17$ Mpc, i.e. $M_{HI}/L_B \sim 0.1 M_{\odot}/L_{\odot,B}$ for the average Im-type galaxy in the sample. For the sample of 118 ISO objects complementary integrated photometry exists from the UV to the centimetric radio continuum in our online GOLDMine database.

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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

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1320-1425 MHz

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

This proposal requires coordination with GPS L3 at 1381 MHz.