

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 78 Hours

Proposal Title: 21 cm of Virgo cluster dwarf spheroidal galaxies.

ABSTRACT:

We have developed a Fourier convolution technique optimized to detect and measure low luminosity and surface brightness galaxies. We have applied it to 14 sq deg area of deep CCD data (average sky noise 26 mag/ sq arcsec) obtained as part of the INT WFC survey of the Virgo Cluster. We find large numbers of dwarf galaxies consistent with a steep faint end slope of the Luminosity Function and have identified a new population (144 galaxies in this area) of relatively large dwarf LSB galaxies in the cluster. We now wish to carry out HI observations of our detections in order to: a) confirm their cluster membership; b) place significantly limits on the HI mass of the possible non-detected objects; c) obtain mass-to-light ratios of the galaxies; d) determine the velocity distribution; e) look for environmental effects on the gas content of the galaxies.

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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

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

This proposal requires coordination with GPS L3 at 1381 MHz.