Technical Page

Proposal Type:	Regular
General Category:	Astronomy
Sub-Category:	Spectroscopy
Observation Category:	Extragalactic
Total Time Requested:	32 Hours

Proposal Title: An HI search for LSB dwarf galaxies in the Millennium Galaxy Strip

ABSTRACT:

We found a total of 59 probable Low Surface Brightness (LSB) dwarf galaxies in the Millennium Galaxy Strip when applying our Fourier deconvolution technique for the detection of LSB galaxies to the deep (average noise of 26 mag/ sq. arcsec) CCD images of this strip of 144 fields, which covers an area of 37.5 sq. degrees and passes through regions of both high and low galactic density. Half of the probable LSB dwarf galaxies show structure, indicating they are dwarf Irregulars or spirals and therefore expected to be gas-rich. Of the 14 for which we recently could obtain short integrations at Arecibo, 5 were detected at redshifts between 1000 and 3600 km/s. We wish to carry out HI observations of 49 of these 59 objects, excluding the 10 with optical redshifts above 11,000 km/s, in order to: determine their velocity distributions and HI masses and to look for environmental effects on the gas content of the galaxies.

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Service Observing Request

- [X] None
- [ ] All of the observing run.
- [ ] Part of the observing run.
- [ ] Queue Observing

Remot e Observing Request

- [X] No
- [ ] Maybe
- [ ] Yes

Instrument Setup

L-narrow

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1365 - 1415

This proposal requires coordination with GPS L3 at 1381 MHz.