Proposal Identification No.: A1972 Date Received: 2004-Jun-01_13:53:14

Technical Page

Proposal Type:	Regular
General Category:	Astronomy
Sub-Category:	Spectroscopy
Observation Category:	Extragalactic
Total Time Requested:	33 Hours

Proposal Title: A Search for Massive Low Surface Brightness Galaxies

ABSTRACT:

Gaining a firm understanding of Low Surface Brightness (LSB) galaxy properties and number counts is vital for testing galaxy formation and evolution theories, as well as for determining the amount of baryons that are contained in galaxies. Observations show increasingly that the 'traditional' view of LSB galaxies as low mass, blue young dwarf-like systems is actually incorrect. For example, our recent HI observations at Nançay and Arecibo have, surprisingly, increased the number of massive ($M_{HI} \geq 10^{10} M_{\odot}$) LSB galaxies by almost a factor of five, adding 68 objects to the 18 that were known beforehand. While the results of our surveys are significant, showing that massive LSB galaxies are far more abundant than has previously been believed, the surveys are incomplete and more, systematic, HI observations of a homogeneous sample are required – the aim of the present proposal.

Name	Institution	E-mail	Phone	Student
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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

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

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1230 -1425

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

This proposal requires coordination with GPS L3 at 1381 MHz.