

## Technical Page

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Extragalactic  
 Total Time Requested: 15 Hours

**Proposal Title:** H $\tilde{\text{I}}$  Masses of Local Counterparts to Compact Star-forming Galaxies at High-redshift  
**DEADLINE(F):** YEAR:1999

*ABSTRACT:*

We will obtain 21-cm observations of 11 compact but luminous starforming galaxies from the UCM survey in the range  $z=0.01$  to  $z=0.03$ . These objects are the closest counterparts to compact starburst galaxies with large luminosities and very narrow linewidths observed in  $z\sim 1$  surveys. In order to indentify the evolutionary descendants of these difficult-to-observe high- $z$  objects, it is necessary to measure the neutral hydrogen content and kinematics in similar local systems. We will measure neutral hydrogen masses to assess the potential of the UCM galaxies for future star formation and compare 21-cm line widths with optical H $\alpha$  velocity widths to constrain the dynamical mass of the systems.

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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-band

**Atmospheric Observation Instruments:**

**Description of Observer Equipment:**

**Special Equipment or setup:** Special setup: Software needs: Media needs:

**RFI Considerations**

## Frequency Ranges Planned

see proposal