

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 25 Hours

Proposal Title: Constraining the CDM Theory with the Star Formation Histories of Low-Luminosity Early-Type Galaxies

ABSTRACT:

Recent numerical simulations of the CDM theory provide predictions that are easily testable with astronomical observations. This hierarchical scenario ultimately predicts that the ages of smaller mass systems should be older than their larger counterparts. To provide constraints to this model, we have initiated a study of low-luminosity early-type galaxies in the Virgo cluster. Spectroscopic age diagnostics already indicate that this sample has experienced a large range of star formation histories with a significant fraction having extremely young ages. Understanding how these observations constrain the predictions of the CDM model and what they tell us about the evolution of galaxies in clusters requires information about the star formation histories of these galaxies that is obtainable with HI mapping of each sample galaxy. Thus, the motivation of this proposal is to obtain 21cm observations which will reveal the nature, amount and location of gas available to fuel the star formation episodes.

Name	Institution	E-mail	Phone	Student
Kristi Dendy	University of North Carolina at Chapel Hill	dendy@physics.unc.edu	919-962-3683	G

I NA want to do remote observing.

Instrument Setup

L-narrow

Atmospheric Optical Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned