Technical Page

Proposal Type: Regular
General Category: Astronomy
Sub-Category: Spectroscopy
Observation Category: Extragalactic
Total Time Requested: 24 Hours

Proposal Title: HI emission from a damped Lyman alpha absorber

ABSTRACT:
The typical mass of damped lyman-alpha (DLA) systems is currently controversial. Small sizes are preferred in hierarchical structure formation theories, while a popular model in the observational literature assumes that DLAs are large, massive disks. Further from HI surveys at low redshifts it is expected that the HI cross section is dominated by spirals. Typical DLA systems at low redshifts however do not appear to be large spirals. We have been observing (using the GMRT, WSRT and AT) the lowest redshift systems to check if they are at least extremely gas rich, even if they are optically faint. We propose here to use the Arecibo Telescope to try and observe HI emission from a low z DLA system. This system is at a higher redshift and reasonable mass limits can be achieved (in practical observing time) only with Arecibo.

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<tr>
<th>Name</th>
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Instrument Setup

L-wide

Atmospheric Optical Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1160 - 1166