

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 45 Hours
 Minimum Useful Time: 1.0 hr

Proposal Title: A Search for HI Absorption in an Unbiased Sample of High- z Radio Sources
ABSTRACT:

We wish to study the fueling mechanism of Active Galactic Nuclei and its evolution with cosmic epoch. We intend to do this through HI absorption for an unbiased sample of high- z radio sources within the redshift ranges of $2.22 < z < 2.38$ and $3.55 < z < 3.15$. These observations would use the Arecibo 430 and 327 MHz receivers, the detection of absorption lines being optimized by using the Double Position Switching observing mode. Our source sample would increase the total number of sources at $z > 2.0$ examined for HI absorption from 12 to 65. A total observing time of 45 hours is requested.

Name	Institution	E-mail	Phone	Student
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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

430 G 327

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

Elimination of as much on-Observatory generated RFI as possible in the 327 and 430 MHz bands