

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category:
 Total Time Requested: 34 Hours

Proposal Title: Mapping HI and OH Toward NGC 383 (3C31)

ABSTRACT:

We request 34 hours of telescope time to conduct mapping observations at the HI and OH transitions towards and surrounding the extended, bright continuum region associated with NGC 383 (3C31) in the Pisces-Perseus Supercluster (PPS). These observations will allow a detailed morphological analysis of the HI of the system from the anticipated emission and absorption information which is otherwise conspicuously absent. From these data a unique, fully sampled and high spatial resolution map of the thermal characteristics of the system can be calculated and a dedicated study of the molecular component of the emission region will be possible. These observations will adopt a hexagonal pointing pattern to Nyquist sample the system, achieving an adequate velocity resolution for the required studies. This experiment will be the first to analyse the HI of NGC 383 and its environs on a group-wide scale. The resolution and sensitivity of the Arecibo telescope makes it the most suitable instrument for this project.

Name	Institution	E-mail	Phone	Student
Erik M Muller	Arecibo Observatory	emuller@naic.edu	(787) 878 2612 x 359	no

Service Observing Request

Remote Observing Request

- | | |
|---|--|
| <input checked="" type="checkbox"/> None
<input type="checkbox"/> All of the observing run.
<input type="checkbox"/> Part of the observing run.
<input type="checkbox"/> Queue Observing | <input checked="" type="checkbox"/> No
<input type="checkbox"/> Maybe
<input type="checkbox"/> Yes |
|---|--|

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1390 - 1402

1631 - 1643

1578 - 1590

1685 - 1697