

## Technical Page

This proposal has not been submitted before.

Proposal Type: Short  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Extragalactic  
 Total Time Requested: 2 Hours  
 Minimum Useful Time: 1h

**Proposal Title:** Are the HI properties of J1649+26 consistent with a regular spiral galaxy?

*ABSTRACT:*

We have found the best example to date of a grand-design spiral galaxy associated with a double-lobed radio source. Leading galaxy formation models do not account for these, consequently this discovery is significant. Spiral galaxies are known to host large amounts of HI in a rotationally stable disk. Conversely, the host galaxies of double-lobed radio sources may be void of HI emission, or contain tumultuous HI disks with large velocity dispersions. Here we submit a Short Proposal to Arecibo Observatory to measure the HI characteristics of this paradoxical source and determine whether they are consistent with a regular spiral galaxy.

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### Remote Observing Request

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

### Instrument Setup

L-wide

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

### RFI Considerations

## Frequency Ranges Planned

1340.75 - 1353.25

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..