

## Technical Page

Proposal Type: Long-term  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Extragalactic  
 Total Time Requested: 45 Hours

**Proposal Title:** Properties of the ISM of a sample of the most isolated galaxies: Atomic gas content.

**ABSTRACT:**

We are studying a large sample of completely isolated galaxies in order to analyze star formation and galaxy evolution independent of exterior influences. Our source is the Catalog of Isolated Galaxies and our sample contains 760 galaxies for which we are building a multiwavelength database. We already collected old and new unpublished optical and FIR data which enabled us to study luminosities and global properties of the sample, and we are currently obtaining/compiling HI, CO and H $\alpha$  data. We searched the NED and the HI catalog Huchtmeier and Richter (1989) finding available HI spectra for half of the sample. Among the rest, we are currently observing ~ 60 galaxies at the Green Bank Telescope. We have splitted the rest of the sample between Arecibo and other radiotelescopes according to sensitivity and declination, in order to complete the HI database of the full sample. Here we ask for observing time to observe 62 galaxies with the Arecibo radio telescope.

Name	Institution	E-mail	Phone	Student
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**Service Observing Request**

**Remote Observing Request**

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

**Instrument Setup**

L-wide

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

## **RFI Considerations**

### **Frequency Ranges Planned**

1320-1397 MHz

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

This proposal requires coordination with GPS L3 at 1381 MHz.