

## Technical Page

This proposal has not been submitted before.

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Extragalactic  
 Total Time Requested: 107 Hours  
 Minimum Useful Time: 60 minutes

**Proposal Title:** A pilot HI survey of SAMI galaxies

*ABSTRACT:*

In the last decade, tremendous progress has been made in our understanding of galaxies, thanks to large spectroscopic surveys at optical and radio wavelengths. The next-generation optical spectroscopy surveys with Integral Field Units (IFUs) will further advance extragalactic studies by providing spatially-resolved maps of stellar and ionized gas properties for a few thousands galaxies. Here we propose a pilot program to measure the global HI properties of 66 galaxies observed by the on-going SAMI IFU Galaxy Survey, which has already assembled the largest sample of IFU maps for nearby galaxies. These observations will demonstrate the power of the combination of IFU and integrated HI data to gain insights into the life cycle of galaxies. Our immediate objectives are to address key science questions, including identifying a unified dynamical scaling relation for all galaxies, investigating the impact of HI on metallicity profiles, and correlating outflows with cold gas content.

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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**

1366-1406

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

This proposal requires coordination with GPS L3 at 1381 MHz.