

## Technical Page

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Galactic  
 Total Time Requested: 16 Hours

**Proposal Title:** HI Clouds in the Galactic Halo: A GALFA pre-cursor proposal for mapping small-area objects

**ABSTRACT:**

We propose to map six HI clouds in the inner Galactic Halo using the ALFA array, together with both the WAPP back-end system and the GALFA spectrometer. Some of these clouds were discovered recently with the GBT, although their origin is still unknown they most likely represent a major constituent for transfer of mass and energy between the Galactic disk and the Halo. Our aims are: (a) compare ALFA observations with the existing observations obtained with the GBT and the VLA to test the performance of the whole ALFA system; (b) estimate the effects of stray radiations on ALFA observations; (c) obtain scientific quality data for several faint Halo clouds to study their kinematics and morphology; (d) investigate the best approach for mapping small-area objects with ALFA; (e) develop a data reduction suite for this, and similar, observations. We request in total 16 hours of observing time.

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**Service Observing Request**

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

**Remote Observing Request**

- No
- Maybe
- Yes

**Instrument Setup**

ALFA

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

## RFI Considerations

### Frequency Ranges Planned