Technical Page

Proposal Identification No.: A2124  Date Received: 2005 -Jun-01 19:30:13

Proposal Type: Commensal  General Category: Astronomy  Sub-Category: Spectroscopy  Observation Category: Galactic  Total Time Requested: 1512 Hours

Proposal Title: Mapping the HI Galaxy and Halo with TOGS2 (Turn On GALFA Survey 2)

ABSTRACT:

Arecibo will be mapping the entire observable sky with rapid coverage for the full-Stokes radio continuum mapping of GALFACTS. We propose to take advantage of the multi-backend capability of ALFA and simultaneously map Galactic HI clouds and high-velocity clouds by simply requesting that the GALFA spectrometer is turned on during the GALFACTS survey observations, and 10 minutes is spent every 3-4 hours on GALFA calibration. The datataking method of GALFACTS uses the identical basketweave technique as we do, namely observing on the meridian and moving the Gregorian only in zenith angle to cover a zigzag path as the sky moves by. This technique is optimum for making accurate maps with no striping from different days' observations. The Turn On GALFA Survey 2 (TOGS2) will have a few seconds integration time per beam, which provides sensitivity adequate for many Galactic HI projects and also provides an ideal full-sky map from which interesting regions can be chosen for mapping at full sensitivity. Current applications include high-velocity clouds, disk/halo interfaces, stellar outflows, and the Galactic Plane.

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<thead>
<tr>
<th>Name</th>
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Service Observing Request

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

Remote Observing Request

-  No
-  Maybe
-  **X**  Yes

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none
RFI Considerations

Frequency Ranges Planned

1370-1490