

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 96 Hours

Proposal Title: Shared-Risk GALFA Precursor Observations for HI and RRLs

ABSTRACT:

The GALFA Consortium includes scientists interested in observations of HI, Radio Recombination Lines, and Continuum radiation from the Milky Way and nearby regions. This proposal includes a series of test observations for the first two sub-consortia; a separate proposal has been submitted by the GALFA-continuum sub-consortium. In the present proposal we outline a series of observations designed to evaluate a number of key aspects of the array system and associated software. These encompass (1) data-taking techniques including mapping modes and maps of various types; (2) baseline removal; (3) telescope and receiver performance; (4) basic data taking and reduction software. We will use the ALFA array with both WAPP and FPGA backends and also single pixel receivers. The information gained by these test observations will markedly improve readiness for large-scale consortium surveys as well as increasing interest within the consortium and the user community for GALFA science, thus involving appropriately large group in further GALFA development and use.

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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

L-wide ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: We will want to use both the WAPP spectrometer system in several different bandwidth configurations and also the FPGA (Berkeley) GALFA spectrometer, initially in single-pixel prototype configuration, and in full 7-pixel configuration if/when available.

RFI Considerations

Frequency Ranges Planned