

Technical Page

This proposal has been submitted before.

The previous proposal number is A2754, A2611.

Proposal Type: Large
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 290 Hours
 Minimum Useful Time: 1 hour

Proposal Title: Surveying the Zone of Avoidance with ALFA

ABSTRACT:

Obscuration due to dust and the high stellar density at low Galactic latitudes creates a "Zone of Avoidance" (ZOA) in the distribution of external galaxies, in optical/IR surveys. This creates uncertainties in our understanding of the dynamics of the local Universe, cosmic flow fields, and the convergence of the CMB dipole. The 21cm line of HI passes unimpeded through the ZOA. We propose to continue our deep survey of the ZOA with ALFA, as commensal project with PALFA in the inner Galaxy, and as primary project in the outer Galaxy. Galaxies discovered so far trace large-scale structure across the Galactic plane, and reveal both predicted and unpredicted mass overdensities. These data are sensitive and deep enough to address not only local contributions to flow fields, but contributions from structures 100 - 200 Mpc and beyond, and will uniquely contribute to flow field studies.

Name	Institution	E-mail	Phone	Student
Patricia A Henning	University of New Mexico	henning@phys.unm.edu	505-277-3166	no

Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1225 - 1525

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

This proposal requires coordination with GPS L3 at 1381 MHz.