Technical Page

Proposal Type: Regular  
General Category: Astronomy  
Sub-Category: Spectroscopy  
Observation Category: Galactic  
Total Time Requested: 162 Hours

Proposal Title: Studies of the Large-Scale Galactic Magnetic Field via the HI Zeeman Effect

ABSTRACT:

We wish to study the large-scale Galactic magnetic field via the Zeeman effect in HI absorption lines. These data will complement rotation measure and starlight polarization studies that also reveal aspects of the large-scale field. Zeeman effect measurements will yield field strengths and directions in localized regions of the CNM, a regime not sampled by the other two tracers. We propose to observe 10 low-latitude continuum sources in the first and third Galaxy quadrants, our data will be sensitive to fields as low as a few microgauss.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<th>Student</th>
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<tbody>
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I NA want to do remote observing.

Instrument Setup

L-wide

Atmospheric Optical Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1420
1665-1668