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# The Global Magneto-Ionic Medium Survey Low-Band-North: Faraday Tomography of the Northern Sky with CHIME and the DRAO 15-m Telescope

Anna Ordog<sup>\*1,2</sup>, Alex Hill<sup>1,2</sup>, and Tom Landecker<sup>2</sup>

<sup>1</sup>University of British Columbia, Okanagan – Canada

<sup>2</sup>Dominion Radio Astrophysical Observatory – Canada

## Résumé

The Global Magneto-Ionic Medium Survey (GMIMS) is an international effort to map the entire polarized radio sky covering 300 to 1800 MHz, yielding unprecedented spatial coverage and Faraday depth resolution for studying large-scale structures in the magnetized interstellar medium. Two of the six components of GMIMS have been published: GMIMS High-Band-North with the John A. Galt telescope (Wolleben et al 2021) and GMIMS Low-Band-South with the Parkes telescope (Wolleben et al 2019), with various stages of progress on the other components currently underway. The Low-Band-North component will consist of combined data from the Canadian Hydrogen Intensity Mapping Experiment (CHIME) telescope (400 to 800 MHz) and the DRAO 15-m Composite Single-Dish telescope (350 to 1030 MHz). Galactic foreground data from CHIME are already yielding high-quality maps of Faraday depth at the higher frequencies, with investigations continuing into improvements to beam models and the reduction of contaminating artifacts. The DRAO 15-m survey, following the rapid azimuth-scanning technique of Carretti et al (2019), is currently entering its third and final observing phase, and we are developing and implementing the data processing pipeline. In this talk I report on the present status of both projects, discuss our plans for combining the datasets, and highlight some of the early science we expect to explore through a joint CHIME-GMIMS collaboration effort.

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\*Intervenant