

Abstract Submitted
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The Galactic Magnetic Field as Viewed from the VLA CAMERON VAN ECK, JO-ANNE BROWN, University of Calgary — Interstellar magnetic fields play critical roles in many astrophysical processes. Yet despite their importance, our knowledge about magnetic fields in our Galaxy remains limited. For the field within the Milky Way much of what we do know comes from radio astronomy, through observations of polarization and Faraday rotation measures (RMs) of extragalactic sources and pulsars. A high angular density of RM measurements in several critical areas of the Galaxy is needed to clarify the Galactic magnetic field structure. Understanding the overall structure of the magnetic field will subsequently help us determine the origin and evolution of the field. In an effort to determine the overall structure of the field, Sun et al. (2008) produced 3 models of the Galactic magnetic field based on RM measurements available at the time. These models made distinct predictions for RMs in a region of the inner Galaxy at low Galactic latitude. Using observations made with the Very Large Array (VLA), we have determined RMs for sources in this critical region. In this talk we will present the results of our study and show how the RMs strongly support the ASS+RING model.

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