Galactic magnetism as revealed by THOR

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Résumé

The HI/OH/Recombination-line (THOR) survey of the inner Milky Way is the highest resolution extended survey of the first Galactic quadrant in radio continuum intensity and linear polarization in frequencies between 1 and 2 GHz. I will briefly present two research highlights from the THOR studies of Galactic magnetism. First, the finding of a strong excess Faraday rotation on the inside of the Sagittarius spiral arm, which we attribute to the compressed diffuse warm ionized medium in the spiral arm, upstream of the major star formation regions. Second, the polarized emission from four supernova remnants reveals the small-scale magnetic field structure that partially fills the shells created by the explosion.

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