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The Effects of Three Dimensional Structures on Cosmic-Ray Propagation and Interstellar Emissions

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A study of interstellar emissions from radio to high-energy gamma rays (> 100 MeV) arising from CR interactions with interstellar gas, radiation and magnetic fields is currently the best way to gain insight into the physics of CRs throughout the Milky Way. To properly utilize the high quality data of modern instruments such as the Fermi-LAT, a detailed model of these interstellar emissions is necessary. In this paper we discuss the effects that results from inclusion of three-dimensional (3D) structures into the distributions of interstellar gas and CR sources using the GALPROP code.

Collaboration

- not specified -

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