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Monte Carlo study of Cosmic-Ray Propagation in the Galaxy and Diffuse Gamma-Ray Production

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Abstract content

This talk present preliminary results for the time-dependent cosmic-ray propagation in the Galaxy by a fully 3-dimensional Monte Carlo simulation. The distribution of cosmic-rays (both protons and helium nuclei) in the Galaxy is studied on various spatial scales for both constant and variable cosmic-ray sources. The continuous diffuse gamma-ray emission produced by cosmic-rays during the propagation is evaluated. The results will be compared with calculations made with other propagation models.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Oliveo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 2 (OG part 1), pages 207-210

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