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Galactic parameters expected from the current cosmic-ray data

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Abstract content

Based on the cosmic-ray (CR) data currently available, we estimate the gas density, diffusion coefficient, and their spacial gradient in both the longitudinal and the latitudinal directions in the Galaxy. Applying our model on the three dimensional CR propagation for various CR observables such as stable nuclear components, isotopes, antiprotons, diffuse gamma-rays, we present analytical solutions for them, and give numerical results. We show the best choices of the Galactic parameters reproducing well the experimental data.

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'Olivo, 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 199-202

Primary author(s) : Prof. SHIBATA, Toru (Department of Physics and Mathematics, Aoyama-Gakuin University)

Co-author(s) : Dr. SEKIGUCHI, Souichi (Department of Physics and Mathematics, Aoyama-Gakuin University); Dr. ISHIKAWA, Tomoaki (Department of Physics and Mathematics, Aoyama-Gakuin University)

Presenter(s) : Prof. SHIBATA, Toru (Department of Physics and Mathematics, Aoyama-Gakuin University)

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