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Reentrant heliospheric particles in 2D drift model

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Abstract content

We developed 2D time dependent heliospheric model where particles trajectory are reconstructed back in time. The model is time dependent due to drifts in the heliosphere. We followed particles also after escaping the heliosphere in the interstellar space to found the fraction of them that reenter back again into the heliosphere. We show how this effect can change the modulation of particles in the heliosphere for different solar periods and for different orientation and strength of interstellar magnetic field. The dependence of modulation process in the heliosphere from reentrant particles is discussed in connection to particles mean free path in the interstellar space. This work is supported by the Slovak Research and Development Agency under the contract No. APVV51053805.

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. 1 (SH), pages 413-416

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