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Nonlinear Field-Line-Random-Walk and Generalized Compound Diffusion of Charged Particles

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Abstract content

An improved nonlinear theory for the perpendicular transport of charged particles is presented. This approach is based on an improved nonlinear treatment of field-line random walk in combination with a generalized compound diffusion model. The generalized compound diffusion model employed is much more systematic and reliable, in comparison to previous theories such as the nonlinear guiding center theory. Furthermore, the new theory shows remarkably good agreement with test-particle simulations and heliospheric observations.

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

Summary

Reference

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