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Vortex electric field in interplanetary medium and the 11-year modulation of galactic cosmic ray anisotropy

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Abstract content

On the basis of world network data of neutron monitors and muon telescopes at the Yakutsk and Nagoya stations the galactic cosmic ray anisotropy directed transverse to the mean field line (in the direction of 15.00 LT) has been revealed. This component undergoes the 11-year variation. Its value rises as the IMF intensity, solar activity level and neutral sheet deformation increase. Such a property of this component is explained by the action of vortex electric field in the heliosphere. The 22-year variation of anisotropy component directed along the magnetic field is of a drift origin.

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 585-588

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