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INFLUENCES OF THE JUPITER ON THE INTERPLANETARY MAGNETIC FIELD AND COSMIC RAYS

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Abstract content

Peculiarities in distribution of the Jovian electrons along the Earth's orbit based on an extended set of observational data are investigated. It is shown that the maximum in the electron intensity appears 243 days after the Earth-Jupiter opposition. It corresponds to the IMF field time simultaneously covering the Jupiter and the Earth. Through the charged particle flux the Jupiter forms 399- day variations in the IMF module and, as a consequence, in the cosmic ray intensity. Amplitudes of variations of the electron intensity, the IMF module and the cosmic ray flux are 71.0, 2.8 and 0.8 % of average values, respectively. The results obtained are the evidence of the fact that the particles injected by the Jupiter can only insignificantly reconstruct the IMF. However, the reconstruction takes place on a large scale, at least, in the whole space between the Earth and the Jupiter.

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 421-424

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