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Study of high amplitude anisotropic wave trains alongwith interplanetary plasma parameters

Abstract content

Abstract The first three harmonics of high amplitude anisotropic wave trains of cosmic ray intensity over the period 1991-1994 have been investigated for Deep River neutron monitoring station. It is observed that the diurnal time of maximum remains in the corotational direction, whereas the time of maximum for semi-diurnal anisotropy has no definite trend as compared to the quiet day annual average for majority of the HAE events. The phase of the tri-diurnal anisotropy significantly shifts towards later hours as compared to the quiet day annual average. It is noticed that these events are not caused either by the high-speed solar wind streams or by the sources on the Sun responsible for producing these streams such as polar coronal holes. The amplitude of tri-diurnal anisotropy for HAE events is observed to remain high for negative polarity of Bz, whereas it is found to remain slightly low for positive polarity of Bz showing a negative correlation. The amplitude of the tri-diurnal anisotropy is observed to increase with the decrease in the value of Dst-index showing a negative correlation.

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

Summary

Reference

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