30th International Cosmic Ray Conference



Contribution ID: 866 Type: Poster

Solar causes for associated geomagnetic disturbances and cosmic ray decreases

Abstract content

Geomagnetic storms (Dst -150nT \geq) and Forbush decrease (Fd magnitude \geq 5%) in cosmic ray intensity have been selected to study the solar source origin for producing these disturbances. It is found that out of 30 geomagnetic storms, 93% are associated with halo/partial halo coronal mass ejections (CMEs) and 60% with major solar flares whereas, out of 25 FD events, 92% are associated with CMEs and 70% with solar flares. Moreover, it is also found that only 9 observed events (Dst and FDs both) have their common origin due to combined effects of flares and CMEs. The operating mechanism at source and in interplanetary medium will be discussed.

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

Summary

Reference

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 $\textbf{Session Classification:} \ \ \mathsf{Posters} \ 1 + \mathsf{Coffee}$

Track Classification: SH.2.1