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Poster

Today's challenge for space weather research is to quantitatively predict the dynamics of the magnetosphere from measured solar wind and interplanetary magnetic field (IMF) conditions. Correlative studies between geomagnetic storms (GMSs) and the various interplanetary (IP) field/plasma parameters have been performed to search for the causes of geomagnetic activity and develop models for predicting the occurrence of GMSs, which are important for space weather predictions. In this paper we find relation between solar activity and geomagnetism during the solar cycle-24. Geomagnetic storms (GMSs) were less during the current cycle, no severe and great storms are occurred during this cycle. Yearly occurrence of GMSs does not exactly match with phase of current solar cycle. Similarly occurrences of Halo CMEs also do not exactly follow the phase of solar cycle but yearly occurrence of GMSs follow the yearly occurrence of Halo CMEs. Consequently, halo CMEs are responsible for the occurrence of GMSs during the solar cycle-24. The correlation between flares and GMSs has been found not very well. It's clear from present study Solar flare also occurred with geo-effective CME's. It is conclude that the occurrences of M and X-class flares are more during GMSs.

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