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## **Study of Halo, Partial Halo CMEs in association of intense geomagnetic storms.**

### **Abstract content**

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Abstract We have investigated three hundred sixty eight halo coronal mass ejections (CMEs) and seven hundred thirty six partial halo CMEs based on the observations from the Large Angle and Spectrometric Coronagraph (LASCO) on board of the Solar and Heliospheric Observatory (SOHO) space craft during the period 1996-2006. Halo CMEs are labeled as halo (S), halo (BA) and halo (OA). Halo CMEs can be symmetric(S) or asymmetric to the occulting disc. Halo(BA ) and halo (OA) CMEs stands for brightness asymmetry and out line asymmetry respectively. Statistically, it is found that the occurrence of halo CMEs and partial halo increases during the maximum activity period. It is observed that halo CMEs are much faster and more energetic than other CMEs. We have identified twenty five intense geomagnetic storms with planetary index  $A_p^{3100}$  and disturbance storm time (Dst) index  $\leq -100$  nT during the period 1996-2006 using solar geophysical data reports. It is noticed that  $\sim 50\%$  intense geomagnetic storms have occurred during maximum activity period . Furthermore, majority intense geomagnetic storms are associated with coronal mass ejections. No intense geomagnetic storms have occurred during the years 1996, 1997,1999.

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

### **Summary**

### **Reference**

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