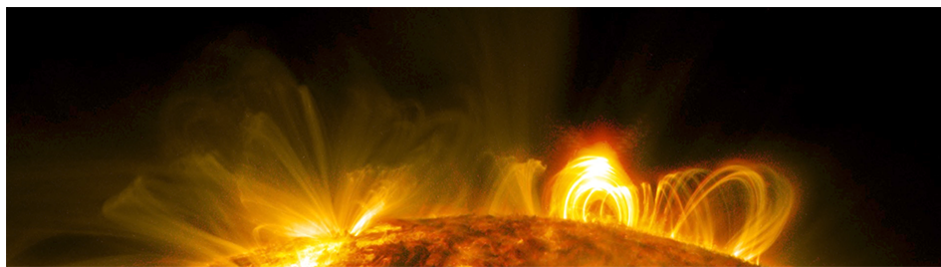


## Particle Acceleration in Solar Flares and the Plasma Universe – Deciphering its features under magnetic reconnection



Contribution ID: 6

Type: Poster

### The study of an extended recovery of an ICME induced extreme geomagnetic storms

*Wednesday, 17 November 2021 09:45 (1 hour)*

Geomagnetic storms are crucial phenomena during severe space weather conditions, which directly or indirectly affects us. Temporal evolution of the storm is investigated using Dst or SYM-H index. Usually, CIR generated storms are weaker but have quite a longer recovery phase than ICME generated stronger storm recovery phase. In the investigation of specific storm events, we noticed that ICME induced storm recovery phase is quite longer than usual. We observed the presence of strong Alfvénic fluctuations during the recovery phase of the storm. Thus we indicated that Alfvénic fluctuations could be a possible reason behind this extended recovery phase. Further, we have investigated the fast and slow recovery of extreme storms that occurred in the last three decades. We used exponential, hyperbolic, and linear decay functions to fit the fast and slow recovery of the storms. We observed that exponential and hyperbolic functions are well explained only for fast recovery while slow recovery is well explained by a linear function.

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