



Magnetospheric response to Alfvenic and non-Alfvenic interplanetary fluctuations

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Solar originated structures such as interplanetary coronal mass ejections and high-speed streams are known to modulate geomagnetic activity. Most dramatic magnetospheric effects are caused by interplanetary coronal mass ejections (CMEs), but auroral region geomagnetic activity is best modulated by interplanetary high-speed streams (HSS). How does the effects of Alfvenic and non-Alfvenic solar wind fluctuations differ from each other is an open and interesting question we aim answering in this presentation. We will show examples of HSS and ICME embedded fluctuations and furthermore geomagnetic conditions during those intervals. Seasonal, annual and solar cycle-to-cycle variation of geomagnetic activity will be presented during different driving conditions. We will cover time scales from seconds to solar cycles and include data from both hemispheres.