



A comparative study of ionospheric response to geomagnetic storms over the African sector

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The Coronal Mass Ejections (CMEs) and Co-rotating Interaction Regions (CIR) driven geomagnetic storms may affect the ionosphere sometimes severely and could result in what is called ionospheric storm effects. This presentation will focus on the statistical analyses of the ionospheric storm effects over middle, equatorial and low latitude stations located within 20°E and 40°E in the African sector during the time interval 2000 - 2016. Comprehensive analyses of Global Positioning System Total Electron Content (GPS-TEC) data were performed based on storm criteria of $K_p \geq 3$ to identify disturbed days. The effects on the ionosphere due to CME and CIR driven geomagnetic storms were studied. The dependence of ionospheric storms on solar activities, season and diurnal variation will be discussed.