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Ionospheric Electrodynamics within the African sector

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$E \times B$ drift influences plasma distribution and dynamics; hence it has a significant impact on space weather. We are presenting the model of $E \times B$ drift developed from magnetic field measurements of a pair of magnetometers at dip equator (geomagnetic latitude: 0.17°N , geographic longitude: 38.77°E) and off-magnetic equator (geomagnetic latitude: 6.0°N , geographic longitude: 39.46°E) within the African sector. The model has been transferred to different equatorial longitude sector. Statistically, the correlation coefficient over 5.77°W longitude sector is 0.663 compared to 0.794 for the 38.77°E longitude sector. Quiet times ($Kp \leq 3$) results generated by the model will also be discussed and compared with ionosonde derived $E \times B$ drift.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

PhD

Main supervisor (name and email) and his / her institution

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Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

No

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