

## **OBSERVATIONAL EVIDENCE FOR MESOSPHERE-IONOSPHERE COUPLING THROUGH LONG-PERIOD OSCILLATIONS**

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Mesosphere-ionosphere coupling through long-period oscillations is investigated from equatorial meteor wind, obtained at São João do Cariri-PB (7.4°S, 36.5°W), and from evening F region vertical plasma drift measurements, obtained by digital ionospheric sounder (DPS-4) at Fortaleza (3.9°S, 38.4°W), during 2005 year. To examine the temporal variations in meteor winds and in vertical plasma drifts we used the *S*-transform method. The spectral analysis shows distinct power spectrum with peaks associated with low-frequency oscillations, mainly those with period near 2 days, 4 days and 6-7 days. The presence of these periodic disturbances, in both equatorial fields, suggests that the mesospheric long-period oscillations can modulated the ionosphere.

Mesosphere-ionosphere system, Planetary waves

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