



## **Analysis of planetary waves seen in ionospheric total electron content (TEC) perturbations**

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The DLR Neustrelitz produces a permanent monitoring of the total ionization (total electron content - TEC) on global scale using the navigation satellite System GPS and GLONASS to diagnose and forecast space weather. In this study we turn our attention to long-period TEC variations with zonal wavenumbers up to 5 in the middle and higher latitudes during September-November 2004. In order to research the meteorological influences on ionospheric variability the results are compared with the planetary wave analysis using assimilated stratospheric data, mesosphere/lower thermosphere radar wind and temperature data at Collm observatory (51.3° N, 13.0° E) as well as data from ionosonde observed critical plasma frequency of the F2-layer ( $f_0F_2$ ) at Juliusruh (54.6° N, 13.4° E).