Study of the low latitude ionospheric turbulence observed by Demeter

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Following previous works from Molchanov et al. (2002a, 2002b, 2004a, 2004b) and Hobara et al. (2005), data bases dedicated to the systematic analysis of the power and spectral indices of the electric field have been elaborated. Two data bases are considered: one for the survey mode and the other for the burst mode. For the survey mode, estimations of the turbulence parameters are performed from the 8 first Fourier components of the averaged power spectra (0-150 Hz frequency band). A single slope power law model ($f^{-\alpha}$) is assumed. A quality factor allows to test that hypothesis. For the burst mode, the power spectra are derived from the waveforms. One and two slope models are systematically tested. Results are presented and the possibility to use these data bases for correlation with seismic activity is discussed.

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