



A statistical analysis of electrostatic turbulence obtained from plasma wave observation by DEMETER satellite

T. Onishi and J.-J. Berthelier

LATMOS/IPSL, St-Maur-des-Fosses, France (tatsuo.onishi@latmos.ipsl.fr)

This presentation is based on results from an automatic analysis of the VLF plasma wave observations provided by the ICE electric field experiment on DEMETER mainly aimed at searching for pre-seismic ionospheric disturbances. In this work, we concentrate on the statistical results of the characteristics of the electrostatic turbulence and their dependence of solar cycle and magnetic activity. These results exemplify a 27-day periodicity in the variation of the low latitude boundary of occurrence as well as significant seasonal variations. A latitudinal asymmetry of the boundary of electrostatic turbulence is observed as magnetic activity increases. Together with the boundary position, the main characteristics of the electrostatic turbulence, such as its intensity and spectrum will be discussed.