Geophysical Research Abstracts
Vol. 15, EGU2013-12095, 2013
EGU General Assembly 2013
© Author(s) 2013. CC Attribution 3.0 License.

Ionospheric plasma turbulence over region of 2006 Iran, 2005 Lake Tanganyika and 2010 New Britain Region earthquakes.

Malgorzata Kosciesza (1), Jan Blecki (1), Roman Wronowski (1), and Michel Parrot (2)
(1) Space Research Center PAS, Warsaw, Poland (mkosciesza@cbk.waw.pl), (2) LPC2E/CNRS, Orleans , France

We report the results of the observation of ELF plasma turbulence registered by DEMETER satellite in the ionosphere over epicenter region of three earthquakes. First one took place on 2nd of February 2005 in Lake Tanganyika Region with magnitude 6.9. Second was earthquake with magnitude 6.1 in Iran on 31st March 2006. The last one took place on 4th of August 2010 in New Britain Region with magnitude 7.0. Obtained results we compare with data gathered during corresponding time and region with quiet seismic conditions. To study this turbulent processes we apply Fourier, wavelet, bispectral analysis and statistical description with use of kurtosis and skewness of the electric field fluctuations. These registrations are correlated with the plasma parameters measured onboard DEMETER satellite and with geomagnetic indices.