



## Some features of the Pi2 bursts during triggered and nontriggered substorms

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The character of amplitudes and duration distributions of the Pi2 bursts observed in nighttime was investigated during development magnetospheric substorms. The analog recordings of the middle latitude Borok observatory (corrected geomagnetic latitude and longitude: 53.6; 114.4) for 1994-1995 were used in the investigation. We separate the Pi2 bursts into two classes: 1) Pi2 observed during substorms which were triggered by the external factors and 2) Pi2 observed during substorms which were occurred spontaneously. Both northward and southward turnings IMF Bz were considered as the possible triggers of the magnetospheric substorms. It was found that the distributions of Pi2 bursts amplitudes of both classes are submitted to the power law. The Pi2 bursts observed during triggered substorms are the power-low index of the amplitudes distribution equal 2.64. To the power dependence with an index 2.50 are submitted Pi2 bursts observed during nontriggered substorms. The results obtained make it possible to assume that the sequences of wave packets of Pi2 pulsations are intermittent process. The analysis of distributions of the Pi2 bursts duration two classes was shown that it are approximated by exponential functions with different indices. If the expansion phase of substorms is connected with IMF orientation change the index of approximated function made 0.43. In case of nontriggered substorms the index of approximated function equal 0.36. It is supposed that on the basis of the obtained indices it is possible on a qualitative level to estimate a turbulence degree of plasma on the night side magnetosphere during development of substorm activity.

The work was supported by the Program of Basic Researches of Presidium of Russian Academy of Science "Change of a surroundings and climate: Extreme Natural Phenomena and Catastrophes"