Geophysical Research Abstracts, Vol. 8, 05659, 2006 SRef-ID: 1607-7962/gra/EGU06-A-05659 © European Geosciences Union 2006



Definition of the magnetospheric resonator characteristics on the amplitude and phase fluctuations of the Pc1 and Pg geomagnetic pulsations

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As a result of investigation of correlative functions of the amplitude and phase fluctuations of regular geomagnetic pulsations the new way of experimental definition of the characteristics of the magnetospheric resonator was developed. It was shown, that almost always dependences of these functions from a phase displacement appear periodic. For a series of the magnetospheric resonator models the empirical connections, which relate a period of the correlation function to parameters of model, are obtained. The similar approach for real geomagnetic pulsations was used. It was revealed, that the correlative functions of real signals are similar to correlative functions, which are obtained in numerical experiment. Using the offered approach some characteristics of the magnetospheric resonator, which shapes wave field of pulsations of a type Pc1 and Pg, observed on the ground surface, were found. The work was supported by the Russian Foundation of Basic Researches (project 03-05-64545).