

Cosmic ray variations of magnetospheric and atmospheric origin in September 2017

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Using data of ground level cosmic ray observations on neutron monitor world network, Yakutsk muon telescope complex and URAGAN muon hodoscope (Moscow), we carried out a research of magnetospheric and atmospheric cosmic ray variations over September 2017 by a modified spectrographic global survey method. We obtained time dependence of changes in the planetary system of rigidities of geomagnetic cutoff (RGC) and average mass temperature over the muon detector sites. Based on the data on the planetary system of RGCs, we calculated the parameters of certain magnetospheric current systems during the geomagnetic disturbances of September 2017 within an axial symmetric model of a bounded magnetosphere.

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