



## **Geomagnetic cutoff rigidity variation of cosmic rays and their relation with the interplanetary parameters during the disturbance of September 2005**

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The storm September 7-15, 2005 was characterized by two strong perturbations of the solar wind speed that reached up to 1000 km/s. We investigated the relations of the theoretical and experimental cutoff rigidities with the geomagnetic Dst-index and the interplanetary parameters during the geomagnetic storm September 7-15, 2005. Theoretical vertical effective geomagnetic thresholds have been calculated by the trajectory tracing method in the magnetic field of the disturbed magnetosphere Tsyganenko (TS01) model and the experimental cutoff rigidities have been obtained by the spectrographic global survey technique using the data from the global network of neutron monitors. Combined analysis of temporal variations of the theoretical and experimental geomagnetic thresholds was performed.