

COSMIC RAY FLUCTUATIONS IN THE INTERPLANETARY MAGNETIC FIELD

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The observational results of Tbilisi neutron monitor 5-min data and 1- and 4-minute data of the measurements of the interplanetary magnetic field (IMF) are used for analysis of cosmic ray (CR) fluctuations. It is shown that the CR spectral functions are connected with helicity of IMF. The spectral indices of CR fluctuations have been linked to spectral indices of magnetic helicity. This linkage depends essentially from concrete model of the magnetic field turbulence. We use Bartlett filter for handling of the observational data. The obtained results are consistent with CR fluctuations theory founded on the kinetic equation.