LONG-TERM COSMIC RAY OBSERVATIONS IN THE ATMOSPHERE

Y.I. Stozhkov, N.S. Svirzhevsky, V.S. Makhmutov, and A.K. Svirzhevskaya Lebedev Physical Institute, Russian Academy of Sciences, Moscow, Russia

Experimental data on cosmic ray fluxes in the atmosphere from the ground level up to 30-35 km obtained at the several latitudes for the period from 1957 till now are presented. The geomagnetic and atmospheric rigidity cutoffs are used to study the modulation processes of cosmic rays in different ranges of rigidities. The long-term north-south anisotropy and hysteresis effects are discussed.