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The Cosmic Ray All-Particles Spectrum from the NUCLEON Experiment in comparison with EAS data

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The cosmic ray all-particles spectrum is a very important result obtained by the NUCLEON space experiment. This spectrum was directly measured up to energies near 500 TeV. The ground-based experiments provide very large statistics but their results depend on applied models. The NUCLEON experiment allows to compare results of direct measurements and data of ground-based experiments. The all-particles spectrum is presented. The shape of this spectrum differs from the power-law dependence. This difference is caused by the universal «knee» found in the rigidity spectra measured by the NUCLEON experiment. The obtained all-particles spectrum is well consistent with the data from ground-based experiments HAWC and TAIGA.

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