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## Energy Spectrum of primary Cosmic Rays according to the data of the Tunka-Grande scintillation array.

The Tunka-Grande experiment is a scintillation array with about 0.5 km2 sensitive area at Tunka Valley, Siberia. Its scientific program is to study cosmic rays and search for astrophysical gamma rays by detecting charged particles (electrons and muons) of extensive air showers (EAS).

Estimation of the accuracy of the Tunka-Grande experimental data reconstruction is an important stage of processing and analysis, as it allows comparing different techniques and selecting the most effective algorithms for reconstructing the characteristics of EAS and primary cosmic rays. We provide the results of the model assessment of the accuracy of the EAS and CR parameters reconstruction by data of the Tunka-Grande array. The estimation was performed by comparing the reconstruction results and the initial parameters of MC showers generated using the CORSIKA (EGS4 electromagnetic interaction model, QGSJET-II-04, Geisha models) and Geant4 tools. As a result the energy spectrum of primary cosmic rays obtained using designed reconstruction algorithms according to the data of the Tunka-Grande array for 7 years of operation is presented.

## **Collaboration(s)**

TAIGA

Authors: IVANOVA, Anna (Novosibirsk State University); BUDNEV, Nikolay Presenter: BUDNEV, Nikolay Session Classification: PO-1

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