

The Astroparticle Physics Conference

34th International Cosmic Ray Conference
July 30 - August 6, 2015

The Hague, The Netherlands

Contribution ID: 887

Type: Poster contribution

All particle CR Energy spectrum by the data of the Tunka-HiSCORE prototype array.

Saturday 1 August 2015 15:30 (1 hour)

The first stage of the Tunka-HiSCORE prototype array operated in the Tunka Valley in March and April of 2014. It consisted of 9 optical stations with the total area of 0.3x0.3 km². Reconstruction methods of extensive air shower parameters are based on the experience of the Tunka-133 data processing. Primary energy spectrum in the energy range of 200 TeV –30 PeV is obtained as the first result of the Tunka-HiSCORE prototype operation. The spectrum has a complicated structure around the energy of the classic knee (3 PeV). The energy threshold of the Tunka-HiSCORE array obtained with this analysis lets us estimate a possible energy threshold for gamma quanta registration in future improved HiSCORE experiment.

Collaboration

- not specified -

Registration number following "ICRC2015-I/"

0758

Author: Prof. PROSIN, Vasily (Moscow State University, Skobeltsyn Institute of Nuclear Physics)

Presenter: Prof. PROSIN, Vasily (Moscow State University, Skobeltsyn Institute of Nuclear Physics)

Session Classification: Poster 2 CR

Track Classification: CR-EX