

PRIMARY COSMIC RAYS ENERGY SPECTRUM AND MASS COMPOSITION AROUND THE "KNEE" WITH TUNKA-13 EAS CHERENKOV ARRAY

O. A. Gress (2), T. I. Gress (2), E. E. Korosteleva (1), L. A. Kuzmichev (1), B. K. Lubsandorzhiyev (3), L. V. Pan'kov (2), Yu. V. Parfenov (2), P. G. Pohil (3), **V. V. Prosin** (1) and Yu. A. Semeny (2)

(1) Scobel'syn Institute of Nuclear Physics of MSU, Moscow, Russia, (2) Institute of Applied Physics of ISU, Irkutsk, Russia, (3) Institute of Nuclear Research RAS, Moscow, Russia.

`prosin@dec1.sinp.msu.ru`

The EAS Cherenkov array TUNKA-13 has been operating for about 500 hours during the winter seasons from 1996 to 2000. The new strict analysis of the data has been made using the results of CORSIKA simulations. The differential primary cosmic rays energy spectrum at the "knee" region with the improved energy resolution is performed. Some conclusions about possible change of mass composition in this energy region derived from the shape of the spectrum and change of Cherenkov light lateral distribution are presented.