

## **Mass composition of cosmic rays with energies above $3 \cdot 10^{15}$ eV according to the data of the small Cherenkov array**

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According to the long-term registration data from the small Cherenkov array of integral and Cherenkov differential detectors obtained the characteristics of air showers with energies above  $3 \cdot 10^{15}$  eV, including of the maximum of the development of the  $X_{max}$ . The dependence of  $X_{max}$  on the shower energy found and the characteristics of air showers compared with the QGSjetII-04 model. From a comparison of  $X_{max}$  with calculations based on the QGSjetII-04 model for a proton and an iron nucleus, a conclusion obtained on the mass composition of cosmic rays in the energy range  $3 \cdot 10^{15} - 2 \cdot 10^{18}$  eV.

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