

Characteristics of the extensive air showers detected with the URAN array

The URAN array was constructed at the Experimental Complex NEVOD to study extensive air showers (EAS) in the energy range of 10^{15} – 10^{17} eV. The URAN array consists of 72 detectors combined into 6 clusters of 12 detectors and installed on the roofs of two buildings of the experimental complex. The array simultaneously detects both the electron-photon and hadronic (via thermal neutrons) EAS components.

The technique for calibrating the URAN array detectors by means of the joint EAS events, recorded also by the existing NEVOD-EAS array, is considered. The main characteristics of the reconstructed EAS are presented: the lateral distribution functions of the electron-photon and hadronic components, the size spectrum, and other distributions of air-shower parameters.

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