

Approximation of the lateral distribution function of the Cherenkov light from extensive air showers in the primary energy region 1-100 PeV.

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The approximation function that makes it possible to describe the lateral distribution function (LDF) of Cherenkov light of individual extensive air showers (EAS) from various primary nuclei with energies of 1-100 PeV and zenith angles up to 20 degrees with an accuracy better than 5% in the distance range 0-500 meters from the shower axis was found. Initially the approximation was intended for processing the events of the SPHERE-2 experiment, but its capabilities are clearly wider. A comparison was made with a simpler approximating function used in the SPHERE-2 processing and with the function used by the TAIGA experiment.

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