

Study the variance of the mean logarithmic mass of cosmic rays in the knee region using LHAASO-KM2A

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Utilizing the unique advantages of the LHAASO experiment, we have achieved a high-precision measurement of the muon content generated by cosmic rays in the knee region of atmospheric showers. The first measurement of $\sigma_{\ln A}$ in the knee region using LHAASO-KM2A, combined with $\langle \ln(A) \rangle$, provides experimental evidence for major physical issues such as the origin of the knee region and the origin of cosmic rays.

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