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Observation of large-scale anisotropy of very high-energy cosmic-ray protons with LHAASO-KM2A

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We present a measurement for large-scale anisotropy of pure protons with the Large High Altitude Air Shower Observatory. We analyze the data collected from the full array of KM2A in three years' operation. We selected the proton data set using a cut on the muonic and electron magnetic components ratio, similar to the gamma/background discrimination technique in KM2A. The purity of the proton sample is up to 80%, and the reconstructed energy is from 10 TeV to 220 TeV. We first perform the energy evolution analysis of the dipole anisotropy of protons at this energy.

Collaboration(s)

The LHAASO Collaboration

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