Type: Oral report (20min)

Observation for the large-scale anisotropy of cosmic rays by LHAASO-KM2A

The large-scale anisotropy of cosmic rays plays an important role in studying the origin and propagation of cosmic rays. The magnitude and morphology of large-scale anisotropy have a complex evolution with the increase of energy. The observations at high energy such as above hundreds TeV have much more significant uncertainties due to the low flux of cosmic rays and the limits for experiments, even though the experiments had long-term data accumulation. As LHAASO has been in operation since July 2021, we select two years' data from the full array of KM2A to observe the LSA of cosmic rays. This work contains the results for the sidereal anisotropy and solar anisotropy of the cosmic-ray all particles. The energy is extended to PeV range, evolution of LSA with energy will be presented in this work.

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