

Cosmic ray energy spectrum and composition measurements from the GRAPES-3 experiment: Latest results

- we are presenting the latest results on elemental energy spectrum for proton and helium in the energy range from 50 TeV to 1 PeV.
- This energy range is a bridge between the direct observations and indirect observation.
- In this analysis, the relative composition of H, He, N and Al+Fe is measured by minimizing muon multiplicity distribution of simulated primaries with the observed muon multiplicity distribution. The elemental energy spectrum of proton and helium are generated.
- The elemental energy spectrum of proton and helium are consistent with CREAM I-III and NUCLEON KLEM (within error) at low energy and proton spectrum is consistent with KASCADE (QGSJET-01, 2005).