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Energy spectrum of Cosmic ray Protons and Helium nuclei measured by the ARGO-YBJ experiment

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The ARGO-YBJ experiment is a full-coverage air shower detector operating at the Yangbajing International Cosmic Ray Observatory (Tibet, P.R China, 4300 m a.s.l.). The detector was in stable data taking in its full configuration from Nov. 2007 to Dec 2012. More than 10^{11} events have been collected and reconstructed. Due to its characteristics (full-coverage, high segmentation, high altitude operation) the ARGO-YBJ experiment is able to investigate the cosmic ray energy spectrum in a wide energy range. In this work we present the measurement of the Proton and Helium spectra in the energy range 1-300 TeV by using a large data sample collected between Jan. 2008 and Dec. 2011.

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