

## Recent Results of Cosmic Ray Measurements from the IceCube Neutrino Observatory

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The IceCube Neutrino Observatory is a cubic-kilometer Cherenkov detector in the deep ice at the geographic South Pole, accompanied by a surface detector array, IceTop. The dominant event yield in the deep ice detector consists of penetrating atmospheric muons with energies above several 100GeV, produced in extensive air showers. In addition, IceTop measures low-energy muons around 1 GeV at the surface and the electromagnetic signal of the air shower. This hybrid detector setup provides unique opportunities to study cosmic rays with unprecedented statistics in great detail.

We will present the latest results of cosmic ray measurements from the IceCube Neutrino Observatory, including the energy spectrum from 250 TeV up to the EeV range and the mass composition above 3 PeV. We will also report a measurement of the density of muons in the GeV range with IceTop and discuss its consistency with predictions from recent hadronic interaction models. Finally, we will present results of a combined measurement of the cosmic ray anisotropy using data from the IceCube and HAWC observatories.

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