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Highlights from the Pierre Auger Observatory

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Abstract content

The Pierre Auger Observatory is now ~80% completed with all of the fluorescence detectors and 1300 tanks in operation. The exposure accumulated since January 2004 is ~5000 km² sr yr, approximately 3 times that reached by AGASA and about twice the exposure of HiRes. The hybrid nature of the detector and unparalleled attention to systematic uncertainties has allowed an accurate measurement of the energy spectrum above 10¹8 eV. The spectra derived from hybrid events, from the surface detectors and from very inclined showers will be discussed. Interpretation of the data on the energy spectrum requires a detailed knowledge of the mass composition and progress towards acquiring this has been made through measurements of the elongation rate. Thus far, the cosmic ray sky has been found to be isotropic with no evidence for clustering on small angular scales or of correlations with BL Lacs, in contrast to what has been seen with other instruments.

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Summary

Reference

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