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## Recent Results at Ultra-high Cosmic Ray Energies from the Pierre Auger Observatory.

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Cosmic rays have a measured energy spectrum which extends past 100 EeV, with ECM above 100 TeV. Their interactions in the atmosphere thus probe energies past the LHC, but without a controlled experimental environment and with a very low flux.

The Pierre Auger Observatory studies atmospheric cascades, produced by ultra-high energy cosmic rays, with a collecting area of 3000 square kilometres and has a useful count rate even above 10 EeV (beginning below 1 EeV). The Observatory makes measurements to aid an understanding of the sources of the highest energy particles in Nature, but it also studies the accessible properties of interactions at those energies with the aid of models based on extrapolated data from accelerators.

Recent results from the Pierre Auger Observatory on astrophysical and particle physics issues will be discussed in this presentation.

### Summary

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**Session Classification:** Parallel III

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