The low energy extension of the Pierre Auger Observatory measurements

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Abstract

In this talk, the most recent results of the Pierre Auger Observatory are summarized. Special attention is given to the energy spectrum and mass composition measurements of cosmic rays with energies down to $10^{117.5}$ eV. This energy threshold is an important target because of the need to cover the energy range where the transition from galactic to extragalactic origin of cosmic rays is assumed to occure. Recently, low energy extentions of the surface and fluorescence detectors were installed and the data has now been analyzed. We present results of measurements down to $10^{117.5}$ eV and discuss possible improvements in the analysis to explore even lower energies in the near future.

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