

Comparison of Reconstruction Methods for Inclined Events, for AugerPrime

Abstract

One of the most active areas in the high energy astrophysics is related with the sources of the ultra-high energy cosmic rays (UHECR). One indicator that allow us to clarify from different astrophysics scenarios, is the mass composition of the primary cosmic radiation which is the main objective of AugerPrime. To achieve this, is planned to complement the original surface array composed by water Cherenkov detectors (WCD) with detectors based on plastic scintillators, called SSD (Scintillator Surface Detector). This upgrade includes also an new way of UHECR analysis using Universality model. In this work we will present a comparison between the physical observables of inclined events obtained by the usual fitting method against the universality model.

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