

Study of Atmospheric Showers Simulations, for Low Energies using Trasgos

Abstract

A new proposal to study the primary radiation mass composition at low energies for atmospheric extended showers (EAS). A prototype of these detectors are called Trasgos (Track and time reconStructinG bOx), there consist on several stacked tRPC (timing Resistive Plate Chambers). The Trasgos has advantages as high temporal resolution (~ 100 ps), high granularity and they are also capable of tracking. In this work we present preliminary results of the simulations made in collaboration with the LabCAF from Santiago Compostela University, Spain. Trasgos allow us a very precise measurement of the Lateral Distribution Function (LDF) at close distances of the shower core. We expected that with these detectors we can have information about the primary mass of the EAS.

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