



Appunti di Fisica '19 & Dottorato di Ricerca in Fisica

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aula HT10&11 - T Incubatore d'Impresa

The Extreme Energy Events Project

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The Extreme Energy Events Project is an experiment aimed at the detection of secondary cosmic ray muons. It consists of a sparse array of about 50 telescopes distributed throughout the Italian territory, covering an area of $3 \times 10^5 \text{ km}^2$. Its distinctive feature is that the telescopes, based on Multigap Resistive Plate Chambers (MRPC), are housed in High Schools and managed by groups of students and teachers. About 100 billion muon tracks have been stored and analyzed since the first coordinated data taking in 2014. The analysis activity is currently in progress and focused on several items: coincidence searches of muons from the same EAS and long distance correlations between different EAS, study of time variations of the muon flux on ground level, searches for large scale cosmic ray anisotropy and for upward-going particles. In this presentation an overall description of the experiment will be given, together with its educational fallout. The operation of the whole array is also presented by showing the most recent results obtained from the analysis of the collected data.

<http://sites.google.com/site/AppuntiDiFisicaMessina/>