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Operation and performance of the EEE network array for the detection of cosmic rays

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The EEE (Extreme Energy Events) Project is an experiment for the detection of cosmic ray muons by means of a sparse array of telescopes, each made of three Multigap Resistive Plate Chambers, distributed over all the Italian territory. The main scientific goals of the Project are the investigation of the properties of the local muon flux, the detection of extensive air showers and the search for long distance correlation between far telescopes. The Project is also characterized by a strong educational and outreach aspect since the telescopes are managed by teams of students and teachers who previously also took care of their construction at CERN. The experiment took a first coordinated data taking ("Pilot-Run") in fall 2014 and another ("Run-1") from February to April 2015. About thirty telescopes collected several billions of cosmic ray events that have been stored, reconstructed and analyzed thanks to the computing facilities at CNAF – the biggest Italian storage and computing center managed by INFN.
In this presentation an overall description of the experiment will be given, including the design, construction and performance of the single telescopes. The operation of the whole array is also presented by showing the most recent results obtained from the analysis of the collected data.

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