

Outreach and educational activities within the EEE cosmic ray network

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The Extreme Energy Events (EEE) network consists in a sparse array of telescopes based on Multigap Resistive Plate Chambers, installed in high school buildings all over the Italian territory and at CERN. Besides the many research activities concerned with extensive air shower detection, long distance correlation studies and additional physics results obtained during the last decade, the EEE project is extensively employed for educational and outreach activities, exploiting a unique opportunity to promote a fruitful and close collaboration between students, high school teachers and researchers. The involvement is at all levels, from the construction of the chambers during short stages at CERN over the past 15 years, with the participation of several hundred high school students and teachers, to the installation, monitoring and data taking with the telescopes by high school teams, to master classes, physics lectures, data analysis sessions and joint discussions on the results and their interpretation. Recent developments of the EEE network led to the installation and use of additional detectors in the Arctic region and on board of sailing ships, to measure the cosmic ray flux over large latitude intervals. Periodical remote and in presence (pre-Covid era) meetings allowed in these years a large participation (several thousand people) from the high school community to the EEE activities. National and local outreach initiatives in cosmic ray physics are also carried out around Italy by the EEE network, as a contribution to the dissemination of science among young people.

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other (fill field below)

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Subcategory

Outreach and Education

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