

A detailed presentation of the highest-energy cosmic rays recorded at the Pierre Auger Observatory

Monday, 3 October 2022 18:00 (20 minutes)

A catalog that contains details of the highest-energy cosmic rays, recorded by the Pierre Auger Collaboration between 1 January 2004 and 31 December 2020, is presented. Data from 100 air showers, generated by particles having energies in the range 78 EeV to 166 EeV, are described, together with nine other very energetic events used in the energy calibration. The catalog has been created to demonstrate the quality of the data that underlie measurements reported by the Collaboration, and to make the details of these events available for scrutiny. After a brief description of the techniques used for data acquisition and reconstruction, the contents of the catalog will be described: some events within it will be discussed in detail.

Primary author: BUSCEMI, Mario (INFN Catania)

Presenter: BUSCEMI, Mario (INFN Catania)