



Contribution ID: 78

Type: **Oral presentation**

Development of an International Masterclass with the public data of the Pierre Auger Observatory

Friday, 16 September 2022 11:45 (15 minutes)

We present the development of an International Masterclass, directed towards high-school students, using the public data of the Pierre Auger Observatory. The challenge for each group of students is to analyze a dataset of ultra-high energy cosmic ray events with the aim of reconstructing their energies and arrival directions. Following the application of selection criteria, all the selected events are combined in a smoothed, exposure-corrected sky map with the arrival directions. A general discussion of the map takes place to allow for conclusions about the cosmic origin of these particles. Throughout the activity, the students work with an interactive software interface based on the unity framework and on the open-data tools provided by the Pierre Auger Collaboration. We will report on the first test edition of the activity that took place in Portugal and Italy, as well as on plans for including this activity as part of the IPPOG Masterclasses programme.

Primary author: SARMENTO, Raul

Presenter: SARMENTO, Raul

Session Classification: Outreach