Contribution ID: 8 Type: not specified

Observations from the publicly available data of the CREDO experiment

Wednesday, January 17, 2024 10:20 AM (20 minutes)

The author statistically evaluates the public data from the CREDO science project.[1]

Starting from observations on the live website data, some effects will be investigated looking through the whole available data set.

Especially I will focus on how long users and devices contribute.

There an interesting divergence between live data and stored data is observed.

Another effect which can be observed is that regularly, that there are events when one user reports several observations at the same time.

Multiple detections show all the three types of cosmic ray observations that were discussed in the paper by Bibrzycki et al..[2]

These can be found in nearly 5% of the observations, one can find up to 10 observations at the same time.

Of course a double detection is most likely and then the possibility goes down.

All is still work in progress and can be either included in the scientific evaluation of the experiment or in the improvement of the experience of the users that contribute to the project.

1 P. Homola, et al. (CREDO Collab.), "Cosmic Ray Extremely Distributed Observatory", Symmetry 2020, 12(11), 1835, 2020. [arXiv:2010.08351, DOI:10.3390/sym12111835].

2 Ł. Bibrzycki et al. [CREDO], PoS ICRC2021 (2021), 227 doi:10.22323/1.395.0227 [arXiv:2110.00297 [physics.ins-det]].

Primary author: LIEBING, Simon (Institute of Theoretical Physics, TU Bergakademie Freiberg, Freiberg, Germany)

Presenter: LIEBING, Simon (Institute of Theoretical Physics, TU Bergakademie Freiberg, Freiberg, Germany)

Session Classification: The CREDO Collaboration Meeting