

ANGULAR DISTRIBUTION OF COSMIC RAYS

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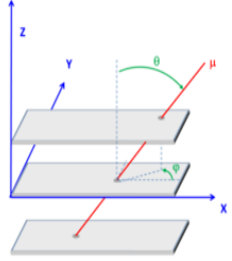
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Abstract

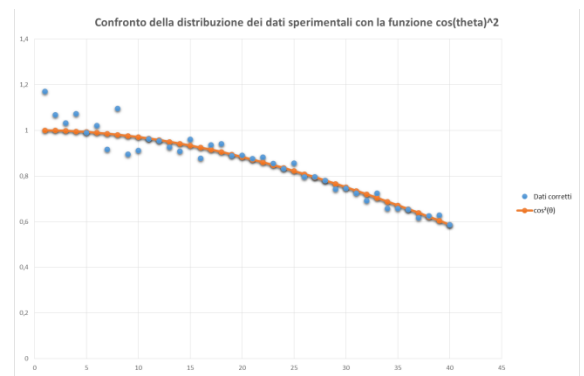
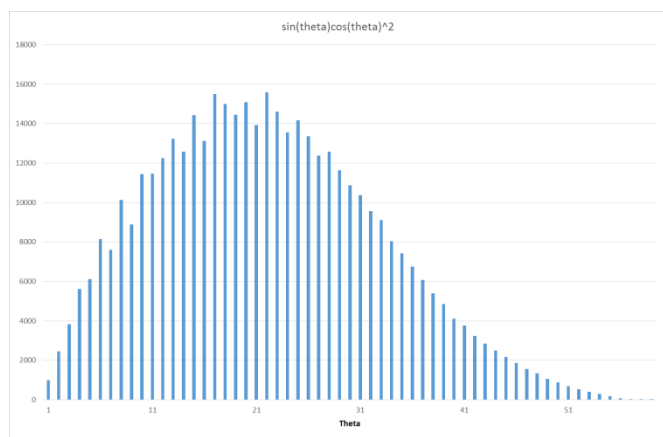
The measure aims to evaluate the angular distribution of the muons flow of secondary cosmic rays produced by the impact of primary rays with the Earth's atmosphere.

Experimental Setup

We have taken the data provided by the Cagliari 01 telescope, which had already been saved in Excel format. Following the instructions provided we have built the graphs reported beside (using the statistical functions of Excel).



Results



Conclusions

The constructed graph shows that the muons flow is not homogeneously distributed for the different zenith angles ϑ . Indeed, the distribution has a Gaussian trend with a peak between 20 and 25 degrees. The hypotheses that have guided the analysis are confirmed by the $\cos^2 \vartheta$ dependence shown in the plot.