Measurement of higher moments of ···

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Write a proper brief abstarct ...

I. INTRODUCTION

We shall be using the STAR definition.

II. EXPERIMENTAL OBSERVATIONS

In this section, we have plotted the histograms for the Transverse Momentum **pT** and the Mean Transverse Momentum $\langle \mathbf{pT} \rangle$ of proton-proton collisions corresponding to each multiplicity class. The histogram for **pT** is then approximated using an **Exponential** fit, while that of $\langle \mathbf{pT} \rangle$ has been approximated using a **Gaussian** fit. Both the quantities **pT** and $\langle \mathbf{pT} \rangle$ have statistical fluctuations arising from the finite number of particles in each event. In each of the subsequent subsections corresponding to each of the 5 multiplicity classes, namely **pytree2040**, **pytree4060**, **pytree6080**, **pytree80100** and **pytree100**, the histograms and the corresponding fits have been plotted. A logarithmic scale has been used on the *y-axis* in order to emphasize the skewness of the data.
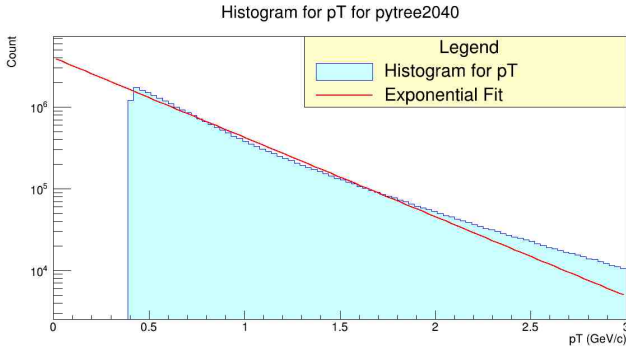
A. Multiplicity Class "pytree2040"

FIG. 1a. Distribution of **pT** for proton-proton collision in the multiplicity class **pytree2040**. The solid line is an Exponential fit to the data.
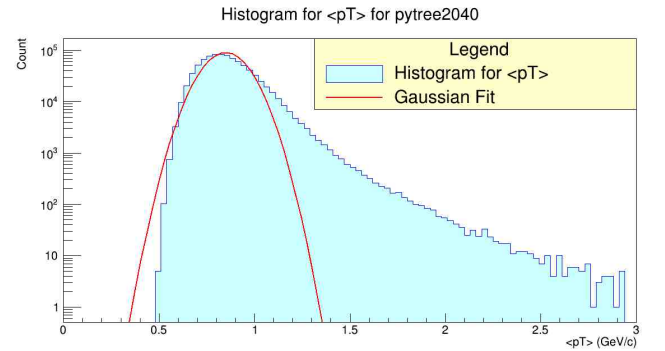

FIG. 1b. Distribution of $\langle \mathbf{pT} \rangle$ for proton-proton collision in the multiplicity class **pytree2040**. The solid line is a Gaussian fit to the data.

B.   Multiplicity Class "pytree4060"

C.   Multiplicity Class "pytree6080"

D.   Multiplicity Class "pytree80100"

E.   Multiplicity Class "pytree100"

FIG. 3. (Color online) Put proper captions

III. SUMMARY

The study of $\cdots$

[1] J. Adams *et al.*, (ALICE Collaboration), Nature Physics**13**,535-539 (2017).