

## A simple model for the moments of multiplicity distributions in pp collisions at the LHC.

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Our first goal in this work is to evaluate the moments of the multiplicity distributions (MD) in pp collisions recently measured on the LHC, as the moments have not been published by the collaboration.

We explore the possibility of fitting this moments with negative binomial distribution (NBD) describing the MD, using a simple power law to describe dependence on energy of the mean multiplicity and a logarithmic expression for the second moment  $C_2$ .

The behaviour of the  $k$  parameter of the NBD gives a measure of KNO violation. We obtain a reasonably good fit of the data, with the parameter  $k$  of the NBD increasing with energy, in contradiction with what is expected on the IP-Glasma description.

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