

# The weighted GMD for multiplicity distributions at LHC energies

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A new distribution is obtained from the Generalised Multiplicity Distribution (GMD). This distribution is derived by a weighted sum of the GMD over the initial number of gluons, removing the dependence of the model on a specific initial state for QCD evolution. The distribution is shown to describe multiplicity data at various LHC energies, possibly providing information on gluon production. Comparisons are made with other multiplicity distribution models.

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