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## Comparative study of Parton distribution functions in the CTEQ framework

Abstract: The studies of the Parton distribution function (PDFs) open a new way to a better understanding of the partonic quark-gluon structure of the nucleon. In the QCD study of high-energy processes, PDFs are essential. We study a few PDF sets with various Q2 ranges and momentum fraction x. All PDFs'numerical values have been taken from the LHAPDF library, a user-friendly interface to PDF sets. In our current study, we compare the PDF sets and plots using APFEL.

Keywords: QCD, PDFs, Momentum fraction x.

References:

[1] S. Forte and G. Watt, "Progress in the determination of the partonic structure of the proton", Annu. Rev. Nucl. Part. Sci. 63, 291 (2013).

[2] V. Bertone, S. Carrazza and J. Rojo, "APFEL: A PDF Evolution Library with QED corrections", Comput. Phys. Commun.185, 1647 (2014).

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