

# Parton distribution functions and absorptive corrections

*Monday 19 March 2018 16:00 (1 hour)*

The Parton Distribution Function measure the probability to find a parton inside a hadron, but these functions are of non-perturbative origin and, therefore, cannot be calculated from first principles in perturbative Quantum Chromodynamics. In this work we review how the parton distribution functions are determined, specifically the HERAPDF2.0, which is determined from deep inelastic scattering data only. Then we investigate how absorptive corrections can be implemented in order to improve the fit of the gluon distribution at low  $x$  and low  $Q^2$ , where it currently becomes negative from NLO on.

## Summary

**Author:** Mr PELICER, Mateus (UFSC)

**Presenter:** Mr PELICER, Mateus (UFSC)

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