

Estimation of single and double diffractive heavy quarks production at the LHC

The single and double diffractive cross sections for heavy quarks production are evaluated at NLO accuracy for hadronic and heavy ion collision at the LHC. Diffractive production of charm, and bottom, is the main subject of this work and predictions for Ca-Ca, Pb-Pb and p-Pb collision are provided. The hard diffraction formalism is considered using Regge factorization, where the Pomeron is constituted by parton. At high energies, these partons are predominantly gluons. A recent parametrization to the Pomeron structure function (DPDF) is applied and absorptive corrections are taken into account as well. The diffractive ratios are estimated and theoretical uncertainties are presented.

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