

Measurement of the inclusive muon differential cross section with the ATLAS detector at LHC

We present the measurement of the muon inclusive differential cross section $d\text{Sigma}/dp_T$ in pp collisions at $\sqrt{s} = 7$ TeV. The analysis is performed in the pseudorapidity interval $|\eta| < 2.5$ for muon of transverse momentum $4 < p_T < 100$ GeV. The data have been recorded using different configurations of the level-1 muon trigger for an integrated luminosity of 1.4 pb⁻¹. The result is compared with the Next-To-Leading Order with Next to Leading Log high p_T resummation prediction for the heavy flavour production and with MC@NLO prediction for W-Z bosons production. The measurement is sensitive for the first time to the Next to Leading Log contribution to the heavy flavour production in hadronic interactions.

Auteur principal: Dr DI MICCO, Biagio Di Micco (CERN)

Orateur: Dr DI MICCO, Biagio Di Micco (CERN)

Classification de thématique: QCD