

Measurement of photon+b+X and photon+c+X Production Cross Sections with the D0 Detector

First measurements of the differential cross sections for the inclusive production of a photon in association with a heavy quark (c, b) jet are presented, covering photon transverse momenta 30-150 GeV, photon rapidities $|y_{\text{gamma}}| < 1.0$, jet rapidities $|y_{\text{jet}}| < 0.8$, and jet transverse momenta $p_{\text{T, jet}} > 15$ GeV. The results are based on an integrated luminosity of 1 fb⁻¹ in ppbar collisions at $\sqrt{s}=1.96$ TeV recorded with the D0 detector at the Fermilab Tevatron Collider. The results are compared with next-to-leading order perturbative QCD predictions.

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