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Cross Section for High-p_T Hadron Production in Muon-Deuteron Scattering at $\sqrt{s} = 17.4$\,GeV

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Lepton-nucleon scattering experiments are performed to investigate the (spin-)structure of nucleons. The theoretical framework for the interpretation of such measurements is perturbative QCD (pQCD). In this contribution we present the measurement of the cross section for the quasi-real photoproduction of charged hadrons with high transverse momenta in muon-deuteron scattering at COMPASS ($\sqrt{s} = 17.4$\,GeV). Furthermore, the dependence of the cross
section on pseudo-rapidity and the hadron charge is discussed. The results are compared to recent next-to-leading (NLO) pQCD calculations to evaluate the applicability of pQCD to this process at COMPASS energies.

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