Hadron Mass Effects for Kaon Production on deuteron[1] JUAN
GUERRERO, Hampton University/Jefferson Lab — The spin-independent cross
section for semi-inclusive lepton-nucleon scattering are derived in the framework
of collinear factorization, including the effects of the target and produced hadron
masses at small momentum transfer squared Q^2. At leading order, the cross section
factorizes into products of parton distributions and fragmentation functions evaluated in terms of new, mass-dependent scaling variables. This talk focuses on Kaon
production at HERMES and COMPASS kinematics. In particular, hadron mass
corrections for integrated kaon multiplicities measured by the two collaborations are
shown to sizeably reduce the apparent large discrepancy between the results for both
experiments.

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