ELECTROMAGNETIC ENERGY LOSS FOR MUONS AND TAUS AT HIGH ENERGY

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We present a new evaluation of charged lepton energy loss in materials via photonuclear interactions. The evaluation relies on HERA results for real and virtual photon interactions with nucleons and a phenomenological treatment of nuclear shadowing. Implications for high energy muons are discussed. Applications to the energy loss of taus and consequences for the attenuation of tau neutrino fluxes are evaluated.