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Applications of KP Nuclear Parton Distributions

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We present the status of our calculation of nuclear parton distribution functions on the basis of our microscopic model, which takes into account a number of nuclear effects including nuclear shadowing, Fermi motion and nuclear binding, nuclear meson-exchange currents and off-shell corrections to bound nucleon distributions. We discuss a number of applications from Deep Inelastic Scattering to the Drell-Yan production. In particular, we present our results for the nuclear corrections in the deuteron and the corresponding constraints on the d/u ratio from global QCD fits, as well as for the rapidity distributions of W and Z boson production in p+Pb collisions at the LHC [PRD 94 (2016) 113013].

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