

Neutrino structure functions predictions for high energy and high precision neutrino experiments

A QCD based analysis of the neutrino structure functions xF_2 , xF_3 and Δ_{xF_3} , for charged current and neutral neutrino DIS is performed focusing on high energy and high precisions neutrino experiments. The investigation is done taking into account the color dipole formalism, considering a wide region of the kinematical variables Bjorken- x and boson virtuality Q^2 . We consider the state of art about the dipole cross section, which describe successfully the deep inelastic inclusive and exclusive production. The theoretical predictions will be compared to the prospects for future experimental projects in the small- x region, as for instance the neutrino scattering experiments NuSOnG and Minerva.

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