

Abstract Submitted
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Ultra High Energy Neutrino-Nucleon Scattering¹ ERNEST HENLEY, Physics Dept., Univ. of Washington, JAMAL JALILIAN-MARIAN, Inst. for Nuclear Theory, Univ. of Washington — We study the scattering of ultra high energy neutrinos ($10^{16} - 10^{22} eV$) on nucleons. The cross section is dominated by small x gluons in the nucleon. We use the color glass condensate formulation of small x QCD to calculate the neutrino-nucleon cross section and compare the results with those from the various DGLAP based parameterizations of the gluon distribution function. We finally examine the contribution of very small x ($\leq 10^{-7}$) gluons to the cross section.

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