

# Nonlinear effects in high-density QCD

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## Abstract

We consider deeply inelastic scattering at very high energies in the saturation regime. The emerging picture corresponds to the propagation of a dipole, the quark-antiquark pair, in a shock wave color field of the target. We use the formalism of Wilson lines to study the evolution of dipole densities in energy logarithms. Our analysis results into an equation in multicolor limit which sums leading logs but keeps the nonlinearities up to cubic order in densities.