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Next-to-leading order corrections for scattering amplitudes in high-energy QCD

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The rapidity (energy) evolution of hadronic observables in scattering of a diluted, perturbative projectile, on a dense gluonic target is described in QCD by the JIMWLK equation. This is a functional non-linear equation that is consistent with the QCD unitarity and reduces to the linear BFKL equation when the scattering probability is low.

Recently, there was major progress in this field - the NLO JIMWLK Hamiltonian was calculated by means of a comparison of the general structure of the NLO Hamiltonian with the NLO evolution equations of quark dipole and Baryon. In my talk I will present the ideas which enabled us determining the NLO correction.

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