# Study of Dipole Scattering Amplitude using Balitsky-Kovchegov evolution equation

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Large amount of experimental data mainly from deep inelastic scattering experiments at small Bjorken x allows to test the high energy limit of QCD. It is known that hadron structure functions show large increase of the number of gluons in this limit. This gluon evolution is described by the BFKL evolution equation. However, experimental data suggests that there are less gluons in a hadron then there should be according to the solution of the BFKL equation. This deviation can be due to parton saturation. According to this phenomenon the number of gluons in a hadron is given by the difference by the radiation and recombination processes which leads to dynamically generated balance in the number of gluons driven by the saturation scale. These non-linear effects in hadrons are described by the Balitsky-Kovchegov evolution equation (BK). Solution of the BK is particularly important in the heavy-ion physics.

## Sekce

Teoretická fyzika

**Primary author:**   MATAS, Marek (CTU FNSPE)

**Presenter:**   MATAS, Marek (CTU FNSPE)

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