Contribution ID: **8** Type: **Talk at plenary session**

NLO BFKL kernel for the adjoint representation of the gauge group

Thursday, 13 September 2012 08:50 (20 minutes)

Summary

It is shown that in the next-to-leading order the BFKL kernel for the adjoint representation of the gauge group with subtracted gluon trajectory does not contain infrared divergencies. An explicit form of this kernel in physical transverse momentum space is presented and its conformal properties are discussed. Conformal invariance of the kernel in the N=4 supersymmetric Yang-Mills model permits to calculate its eigenvalues and to obtain the high energy behavior of
the remainder function for the 6-point scattering amplitude with the maximal helicity violation in the kinematical regions containing the
Mandelstam cut contribution.

Primary author: Prof. FADIN, Victor (Budker Institute of Nuclear Physics)

Presenter: Prof. FADIN, Victor (Budker Institute of Nuclear Physics)

Session Classification: Progress in QCD (I)

Track Classification: Progress in QCD