

PAUL SCHERRER INSTITUT



Particle Theory Seminar

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“High Energy Limit of QCD: Heavy Quark Production and
the Effective Action”

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Abstract:

In this talk we discuss several aspects of the description of QCD at high center of mass energies. After a brief review of reggeization of the gluon and the BFKL-equation we turn to the discussion of the heavy flavour production within k_t factorization, using unintegrated gluon densities at NLO. In a second part we discuss the gauge invariant effective action of high energy QCD, proposed by L.N. Lipatov. We present a set of rules that allow for a rederivation of gluon reggeization and the BFKL-equation. The rules are then applied to the determination of transition vertices which change the number of reggeized gluons in the t-channel and we give a comparison to earlier results.