XXVII International Workshop on Deep Inelastic Scattering and Related Subjects



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Sub-eikonal spin corrections and g1 structure function at low-x

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Most of the progress in high-energy Quantum Chromodynamics has been obtained within the eikonal approximation and infinite Wilson-line operators. Evolution equations of Wilson lines with respect to the rapidity parameter encode the dynamics of the hadronic processes at high energy. However, even at high energy many interesting aspects of hadron dynamics are not accessible within the eikonal approximation, the spin physics being an obvious example. The higher precision reached by the experiments and the possibility to probe spin dynamics at future Electron Ion Colliders make the study of deviations from eikonal approximation especially timely.

I will present the high-energy sub-eikonal corrections and the low-x g_1 structure function through the high-energy Operator Product Expansion.

Author: CHIRILLI, Giovanni Antonio (University of Regensburg)
Presenter: CHIRILLI, Giovanni Antonio (University of Regensburg)
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