Diffraction and Low-x 2022



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Pseudo- and quasi-PDFs in the BFKL approximation

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o calculate the PDFs from first principles in Lattice gauge theories it is convenient to consider the Ioffe-time distribution defined through gauge-invariant bi-local operators with spacelike separa-tion. Lattice calculations provide values for a limited range of the distance separating the bi-local operators. In order to perform the Fourier transform and obtain the pseudo- and the quasi-PDFs, it is then necessary to extrapolate the large-distance behavior. I will discuss the formalism one may use to study the behavior of the Ioffe-time distribution atlarge distances and show that the pseudo-PDF and quasi-PDF are very different at this regime. Using light-ray operators, I will also show that the higher twist corrections of the quasi-PDF come in not as inverse powers of Pbut as inverse powers of xBP.

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