

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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Nucleon and pion structure at physical pion mass

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In recent years, parton distributions have been calculated from ab initio QCD using non-perturbative lattice field theory. In this presentation, I focus on a Lorentz invariant generalization of the Ioffe time distribution which can be calculated directly on the Lattice. Just like experimental cross sections, these matrix elements can be factorized into the PDF. I present our latest results for the nucleon and pion unpolarized iso-vector PDF which are testing the systematic errors of these calculations, including an extrapolation to physical pion mass, discretization errors, and finite volume errors.

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