

# Lattice QCD calculation of distribution functions

*Thursday, 2 November 2023 10:00 (30 minutes)*

Many interactions with nuclei can be described in terms of convolutions of universal parton distributions. These parton distributions describe the way quarks and gluons conspire to create the hadrons. Over the past decade these distributions have been inferred from matrix elements calculating with Lattice QCD. These matrix elements are similar convolutions of the parton distribution as cross sections. Even more the Lattice QCD matrix elements can be included as prior information in global analysis of experimental cross sections. The complementary information gives improved results than either could individually.

**Primary author:** KARPIE, Joseph (Jefferson Lab)

**Presenter:** KARPIE, Joseph (Jefferson Lab)

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