

Reaching high momenta using Distillation.

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The need to reach high hadron momentum is key to calculations of Parton Distribution Functions and other measures of hadron structure within lattice QCD. Meanwhile, the distillation framework provides a valuable means both of more fully sampling the lattice, and of controlling the contribution of excited states. In this talk, we extend the distillation framework through the implementation of the so-called momentum-smearing method, and show that it allows a major improvement in the determination of the energies of the nucleon in motion. We then apply the method to the extraction of the Nucleon Charges between nucleons at non-zero momentum.

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