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Parton distribution functions from lattice QCD

Thursday, 24 September 2015 15:00 (30 minutes)

Recent results on nucleon observables using simulations of Quantum Chromodynamics (QCD) with a range of quark masses that include
their physical values are presented.
We use a discretization of the theory known as twisted mass QCD,
which allows for an automatic O(a^2) improvement without
requiring improvement of the operators. The simulations use lattice spacings a<0.1fm and are performed by the European Twisted Mass Collaboration.
We focus in particular on results on the nucleon generalized form factors and parton distribution functions.

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