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Compton amplitude via the Feynman-Hellman theorem

Friday, 7 August 2020 16:20 (20 minutes)

In this talk, we highlight our group's recent developments on computing the Compton amplitude in a lattice approach. We briefly discuss how to access the Compton amplitude directly via the second-order Feynman-Hellmann theorem. As an application, we compute the nucleon Compton tensor across a range of photon momenta at an unphysical quark mass. This enables us to study the Q^2 dependence of the low moments of the nucleon structure functions in a lattice calculation for the first time. We discuss possible further applications of this approach.

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