

NNLO corrections to SIDIS coefficient functions

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Hadron production in lepton-proton scattering (semi-inclusive deep inelastic scattering, SIDIS) probes the structure of hadrons at a higher level of detail than fully inclusive processes. A wealth of SIDIS data is available especially from fixed-target experiments. In this talk, we present the calculation of NNLO corrections to the full set of SIDIS coefficient functions and discuss their impact on precision phenomenology. Our results enable for the first time a fully consistent treatment of hadron fragmentation processes in DIS at NNLO and provide the basis for studies of hadron structure, hadron fragmentation and identified particle cross sections at colliders.

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