Single Spin Asymmetries, Unpolarized Cross Sections and the Role of Partonic Intrinsic Transverse Momentum

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Partonic intrinsic transverse momentum can be essential for the explanation of large single spin asymmetries in hadronic reactions in the framework of perturbative QCD. The status of an ongoing program investigating in a consistent way the role of intrinsic transverse momentum both in unpolarized and polarized processes is discussed. We compute inclusive cross sections for hadron and photon production in hadronic collisions and for Drell-Yan processes; the results are compared with available experimental data in several different kinematical situations.

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