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## Transverse momentum distributions of hadrons within jets

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By adopting a generalised parton model approach at leading order in QCD, including spin and intrinsic parton motion effects, we study the Collins azimuthal asymmetries for pions within a large- $p_T$  jet produced at mid-rapidity in polarised hadronic collisions. Using available information on the quark transversity distributions and the pion Collins functions, as extracted from semi-inclusive, deeply inelastic scattering and  $e+e^- \rightarrow h_1 h_2 X$  processes, we compute estimates for the Collins asymmetries in kinematical configurations presently investigated at RHIC by the STAR Collaboration. Collins-like asymmetries, involving linearly polarised gluons, are also considered. Our predictions, compared against available preliminary data, show a very good agreement, even if some discrepancies, to be further scrutinized both theoretically and experimentally, appear in the transverse momentum dependence of the Collins asymmetry. These results are in favour of the predicted universality of the Collins function and of a mild, if any, evolution with the hard scale of the asymmetries.

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