

## **Investigating Nucleon Structure and Hadronization with Hadrons in Jets at STAR**

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The STAR collaboration at RHIC provides insight into the spin structure of the nucleon through collisions of longitudinally and transversely polarized beams of protons. Spin-dependent azimuthal distributions of hadrons within jets from transversely polarized proton collisions provides access to the transversity distribution function at a range of  $x$  complementary to semi-inclusive deep inelastic scattering (SIDIS) experiments but at a much higher range of  $Q^2$ . Asymmetries from STAR data collected in 2011 at  $\sqrt{s} = 500$  GeV and in 2012 at 200 GeV give the first experimental hints that the universality of this “Collins mechanism” may extend to proton-proton collisions, as it does in SIDIS and  $e^+e^-$ . The STAR data also provide unique insight into the in-jet transverse momentum dependence of the Collins asymmetry, crucial for a deeper understanding of the Collins fragmentation function. The final 2011 and preliminary 2012 STAR hadron-in-jet data will be presented and discussed in context with recent global transversity analyses and model calculations.