

Exploring universality of transversity in p-p collisions

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We consider azimuthal asymmetries of charged pion pairs produced inside the same jet from proton-proton collisions with one transversely polarized proton. A specific asymmetry directly probes the chiral-odd transversity parton distribution in connection with the chiral-odd interference fragmentation function. We present predictions for this observable based on previous extractions of transversity (from charged pion pair production in SIDIS off transversely polarized targets) and of the interference fragmentation function (from the semi-inclusive production of charged pion pairs in back-to-back jets from e^+e^-). All analyses are performed in the framework of collinear factorization. We compare our predictions with recently released data by the STAR collaboration, and we find them compatible. It is the first attempt to explore the universality of transversity.

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Session Classification: Talks