

Isolated photon single spin transverse single spin asymmetries with sPHENIX

Direct photon single spin asymmetries, A_N , have the advantage that they are not sensitive to final state effects and that the hard scattering process is predominantly quark-gluon scattering at RHIC energies. Therefore, direct photons provide a clean probe to study the quark-gluon and tri-gluon correlations in single spin asymmetries with particularly the latter hardly constrained at present. The larger and more hermetic acceptance of sPHENIX compared to PHENIX is expected to improve the precision of the previous direct photon A_N measurements using the 2024 polarized proton-proton collisions that were recorded in sPHENIX. The status of the direct photon A_N measurements will be presented.

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