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Transverse single spin asymmetries in PHENIX DAVID KLEINJAN, University of California, Riverside, PHENIX COLLABORATION — Inclusive transverse single spin asymmetries from high energetic polarized proton proton collisions provide insight into the spin-momentum correlations in QCD. Originally expected to be small in collinear perturbative QCD, results from PHENIX and other experiments show significant asymmetries in the forward momentum direction of the polarized proton over a wide range of center-of-mass energies. Several mechanisms have been proposed that attempt to explain these asymmetries, which include initial and final state effects. In order to disentangle these effects, a variety of probes is needed in different kinematic regions. In the PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC), we study polarized p+p collisions at center-of-mass energies up to 500 GeV. We will show transverse asymmetries at forward ($3.1 < |\eta| < 3.8$) and central rapidities ($|\eta| < 0.35$) and discuss their possible implications for intitial and final state effects.

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