

Abstract Submitted  
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**Measurement of transverse single-spin asymmetries for dijet production in polarized  $p+p$  collisions at  $\sqrt{s} = 200$  GeV at STAR**<sup>1</sup> HUANZHAO LIU, Indiana Univ - Bloomington, STAR COLLABORATION — We report a new measurement of transverse single-spin asymmetries for pair-production of jets in collisions of transversely polarized protons at  $\sqrt{s} = 200$  GeV with data taken in 2012 and 2015 at STAR. The correlation between the transverse momentum of a parton ( $\vec{k}_T$ ) and the transverse spin ( $\vec{S}$ ) of its proton, moving in the longitudinal ( $\vec{p}$ ) direction, is probed at a high  $Q^2$  scale ( $\sim 160$  GeV<sup>2</sup>). The corresponding Sivers  $\langle k_T \rangle$  is calculated based on a simple kinematic model. By employing charge-tagging to separately enhance  $u$ - and  $d$ -quark contributions, we see non-zero Sivers effects for the first time in dijet production with transversely polarized proton collisions. The individual parton contributions ( $u$ ,  $d$ , gluon+sea) to the measured  $\langle k_T \rangle$  are extracted through bin-by-bin matrix inversion of the charge-sorted  $\langle k_T \rangle$  results.

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