

Transverse Spin Transfer to Λ and $\bar{\Lambda}$ Hyperons in Transversely Polarized Proton+Proton Collisions at $\sqrt{s}=200\text{GeV}$

Jincheng Mei, for the STAR Collaboration

Shandong University & Brookhaven National laboratory

The transverse spin transfer to Λ hyperon can provide insights into the polarized fragmentation function and the transversity distribution which play important roles in understanding the spin structure of the nucleon. In 1997, significant spin transfer along the normal direction of the Λ production plane was observed at large x_F by Fermilab E704 Collaboration. In this contribution we report an update to our analysis of the transverse spin transfer for Λ and $\bar{\Lambda}$ hyperons along the polarization direction of the outgoing quark or hyperon in polarized proton+proton collisions. The data were taken in 2012 with STAR detector at RHIC at center of mass energy of 200 GeV with beam polarization about 63% and cover hyperon transverse momenta up to 8 GeV/c.