

1 Measurement of transverse polarization for  $\Lambda/\bar{\Lambda}$  production in  $pp$   
2 collisions at STAR

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4 Spontaneous polarization of  $\Lambda/\bar{\Lambda}$  has been observed over four decades ago, but still eludes a  
5 definitive explanation. One possible origin is the effect arising from polarizing fragmentation  
6 functions (PFFs), which describe the production of polarized hadrons from the fragmentation of  
7 an unpolarized parton. In 2019, the Belle experiment observed significant transverse polarization  
8 of  $\Lambda/\bar{\Lambda}$  in unpolarized  $e^+e^-$  annihilations, indicating significant non-zero PFFs. In  $pp$  collisions,  
9 measurements of transverse polarization of  $\Lambda/\bar{\Lambda}$  inside a jet could provide important constraints  
10 for the PFFs. In 2015, the STAR experiment at RHIC collected a dataset of  $pp$  collisions at  $\sqrt{s}$   
11  $= 200$  GeV with an integrated luminosity of  $104 \text{ pb}^{-1}$ , which is the largest data sample STAR  
12 has collected so far for such collision system and energy. In this talk, the analysis status of  
13 transverse polarization measurement of  $\Lambda/\bar{\Lambda}$  in jets utilizing the 2015 dataset will be presented.