

Abstract Submitted  
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**Optimizing the Drell-Yan Trigger for the STAR Forward Meson Spectrometer** J.R. PYBUS, Z. CHANG, C.A. GAGLIARDI, Cyclotron Institute, Texas AM University, College Station, Texas 77843, STAR COLLABORATION — Theoretical calculations predict that the transverse single-spin asymmetry,  $A_N$ , for Drell-Yan dilepton production in  $pp$  collisions is equal in magnitude and opposite in sign to that for semi-inclusive lepton-proton deep inelastic scattering. Verifying this prediction has been identified as a critical test of our current understanding of factorization in high-energy collisions. The STAR Collaboration at RHIC is planning to measure  $A_N$  for forward-rapidity Drell-Yan  $e^+e^-$  pairs in 500 GeV  $pp$  collisions in Spring, 2017. The  $e^+e^-$  pairs will be detected with the STAR Forward Meson Spectrometer (FMS). We studied the efficiency of the FMS trigger system to detect Drell-Yan events. We found that the current logic is less efficient for those events that carry the greatest spin sensitivity. We have developed an alternative logic scheme that will significantly increase the efficiency while being easy to implement. We are also studying the implications of the new scheme for measurements of  $A_N$  for forward  $J/\psi$  production. The new trigger logic will be described.

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