## **Threshold Resummation Effects in the Polarized Drell-Yan Process :** Mass and Rapidity Distributions

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We present the studies of QCD corrections to dilepton production in transversely polarized proton-proton and antiproton-proton collisions. In particular we briefly discuss the effects of NNLL threshold resummation on the mass and rapidity distributions of the lepton pair. We give a numerical study of resummed cross section for the proposed experiments of polarized nucleon collision at GSI-FAIR and J-PARC.



- H. Shimizu, G. Sterman, W. Vogelsang and H. Yokoya, Phys. Rev. D71, 114007 (2005); Nucl. Phys. Proc. Suppl. 157, 197 (2006).
- [2] G. Sterman and W. Vogelsang, JHEP 0102, 016 (2001),
  A. Mukherjee and W. Vogelsang, Phys. Rev. D 73, 074005 (2006).