

Abstract Submitted
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Threshold Resummation at High Rapidities in Lepton Pair Production DAVID WESTMARK, University of South Alabama — It is known that large logarithms appear in the kinematic region known as threshold that can be resummed using threshold resummation. Threshold resummation techniques have been used to perform phenomenological studies of cross sections that can constrain parton distribution functions (PDFs). The lepton pair production (LPP) rapidity distribution is one such cross section, providing information to constrain sea quark PDFs. The purpose of this presentation is to demonstrate that current resummation methods for the LPP rapidity distribution are approximations that lose accuracy at high rapidities. A resummation formalism that avoids these approximations is extended to the $\overline{\text{MS}}$ scheme in the minimal and Borel prescriptions, and phenomenological results using this formalism are presented.

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