

Abstract Submitted
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Exponentiated Monte-Carlo Approach to Vector Boson Production at the LHC¹ SCOTT YOST, Baylor University — We describe a non-abelian exponentiation approach to constructing a Monte Carlo generator for vector boson production at the LHC. The approach is motivated by the Yennie-Frautschi-Suura exponentiation in abelian gauge theory, but with essential modifications as needed for application to QCD and QED together. We discuss approaches to matching the hard parton cross section to the shower, and give an estimate of the size of the QED contributions, showing the importance of including them to reach the desired precision level in LHC physics.

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