

APR07-2007-000143

Abstract for an Invited Paper
for the APR07 Meeting of
the American Physical Society

Advances in perturbative QCD for LHC physics

FRANK PETRIELLO, University of Wisconsin

We discuss recent results in perturbative QCD, with a focus on preparing to analyze LHC data. Significant progress has been made in predicting QCD backgrounds and quantifying theoretical uncertainties. Techniques from disparate fields such as b-physics and string theory have contributed to our understanding. The major themes of this talk are the necessity of QCD calculations to verify and improve Monte Carlo tools, and the importance of testing these calculations on data from HERA and the Tevatron.