

A Snapshot of Precision QCD Measurements at the LHC

Tuesday 12 December 2023 09:00 (45 minutes)

Jets are a central component of many analyses at collider experiments, and uncertainties related to jet reconstruction and QCD limit the precision of a variety of experimental analyses. Their production involves both perturbative and non-perturbative aspects of QCD, resulting in a rich structure that is difficult to model precisely. The talk will discuss several different measurements that probe QCD at different scales, including parton distribution functions, the strong coupling constant, and parton showers. These measurements will be used to demonstrate how experimental precision, coupled with theoretical developments, can be used to provide a better understanding of QCD, and can be used to enhance the physics program at the LHC.

Author: ROLOFF, Jennifer (Brookhaven National Laboratory (US))

Presenter: ROLOFF, Jennifer (Brookhaven National Laboratory (US))

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