

Underlying event studies at ATLAS and CDF

Abstract content

Improving our understanding and modeling of the underlying event in high energy collider environment is important for more precise measurements at the LHC. CDF Run II data for the underlying event associated with Drell-Yan lepton pair production and early ATLAS data measuring underlying event activity with respect to the leading transverse momentum track are presented. The data are compared with several other QCD Monte-Carlo models. It is seen that no current standard Monte Carlo tune adequately describes all the early ATLAS data and CDF data simultaneously. The underlying event observables presented here are particularly important for constraining the energy evolution of multiple parton interaction models.

Summary

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