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Study of hadronic event shapes with the CMS detector at LHC

We present a study of hadronic event shapes in 7 TeV collisions at the Large Hadron Collider (LHC) using the data recorded so far. We use purely calorimetric jets, track jets and jets constructed using particle flow techniques as input for calculating various event-shape variables, which probe the structure of the hadronic final state. It is shown that the normalized event-shape distributions are robust against various sources of systematic uncertainty and we demonstrate that early measurements of event-shape variables allow to study differences in the modeling of QCD multi-jet production.

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