

Jet measurements at the LHC

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Jets are the physical manifestations of the quarks and gluons produced in high-energy proton-proton collisions. They are among the most ubiquitous physics objects measured at the LHC, and their production and complex evolution is governed by the proton parton distribution functions (PDFs), the strong coupling constant (α_s) and the rules of Quantum Chromodynamics (QCD). Yet they can often be quantitatively understood using perturbative QCD and used to extract information on PDFs and α_s .

In this talk, we will review recent jet measurements ranging from inclusive jets, b-jets and dijet azimuthal decorrelations to jet shapes. We review prospects for gluon jet measurements and briefly discuss the importance of jet measurements also for new physics searches (dijet resonance search) and studies of the electroweak vacuum (top quark mass).

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