

# Jet energy scale and jet substructure performance in CMS

*Tuesday, 28 August 2018 17:30 (25 minutes)*

Jets are the experimental signature of energetic quarks and gluons produced in high energy processes. A detailed understanding of both the energy scale and the transverse momentum resolution of jets is of crucial importance for the analysis of perturbative QCD processes. In addition, the substructure, shape and mass of jets is an important tool to separate and study quark and gluon initiated jets as well as jets initiated by highly boosted W, Z, Higgs bosons and top quarks decaying to quarks. In this talk, we present the measurements of CMS jet energy scale and resolution, as well as the performance of jet substructure tagging algorithms using the data sample collected in proton-proton collisions at a center-of-mass energy of 13 TeV.

**Presenter:** AGGLETON, Robin Cameron (Hamburg University (DE))

**Session Classification:** Perturbative QCD, jets and substructure

**Track Classification:** Perturbative QCD, Jets and Substructure