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Jet/MET performance in CMS during Run2 (20'+10')

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Jets are the experimental signatures of energetic quarks and gluons produced in high energy processes and they need to be calibrated in order to have the correct energy scale. A detailed understanding of both the energy scale and the transverse momentum resolution of jets at the CMS is of crucial importance for many physics analyses. Furthermore, study of jet substructure properties in boosted topologies are critical for distinguishing jets originating from quarks, gluons, W/ Z/Higgs bosons, top quarks and pileup interactions. Lastly, the precise measurement of the missing transverse momentum (MET) observable is critical for standard model measurements involving W, Z, and the Higgs bosons, and top quarks. MET is also one of the most important kinematic observable used in searches for physics beyond the standard model targeting new weakly interacting neutral particles.

In this talk, we present the measurements of CMS jet energy scale and resolution, MET performance and standard heavy object tagging performance using the data sample collected in proton-proton collisions at a center-of-mass energy of 13 TeV.

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