Contribution ID: **340** Type: **2a) Jets and high-pT hadrons (TALK)**

Probing properties of the QCD Medium using jet substructure techniques in pp and PbPb collisions at 5.02 TeV at CMS

Thursday 4 October 2018 15:00 (20 minutes)

We present recent results on measurements of inclusive jet substructures using grooming techniques and constituent correlations with pp and PbPb data collected with the CMS detector at a center-of-mass energy of 5.02 TeV per nucleon pair. Jet grooming techniques are used to focus on the hard structure of the jet by extracting the two subjets corresponding to the hardest parton splitting. The hard jet structure is also sensitive to the role of (de)coherent gluon emitters. Measurement of constituent jet charge and multiplicities are used in conjunction with parton flavor template fits to further map the interior structure of jets. Modifications relative to Monte Carlo baseline are interpreted as modification from Quark Gluon Plasma on a propagating parton and aid in understanding of mass and splitting function measurement previously performed by the CMS collaboration. Results and prospects of future jet substructure measurements of identified partons are discussed.

Summary

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