Contribution ID: **337** Type: **2a) Jets and high-pT hadrons (TALK)**

D-meson production in jets in pp and PbPb collisions with the CMS detector

Tuesday 2 October 2018 14:00 (20 minutes)

The measurement of D-meson production in jets can provide important insights into the interactions of heavy-flavour quarks with the quark-gluon plasma created in heavy ion collisions. In particular, the role of gluon splitting processes in the production of heavy flavour, which is fundamental for a complete understanding of the quenching mechanisms for both light and heavy quarks, can be explored. Large datasets for proton-proton and PbPb collisions at a nucleon-nucleon center-of-mass energy of 5.02 TeV were collected with the CMS detector during the 2015 LHC run. These data enable measurements of D-meson production as a function of the radial distance between the jet axis and the D meson in different intervals of D-meson transverse momentum. The ratio of the results for PbPb and pp collisions will be compared to similar measurements of jet radial profiles using light particles from the CMS experiment at the same center-of-mass energy.

Summary

Presenter: PETERS, Michael (Massachusetts Inst. of Technology (US))

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