QUARK MATTER 2015
Sep. 27 – Oct. 3, 2015 Kobe, Japan

Contribution ID: **427** Type: **Poster**

Prospects of measuring heavy-flavour dijets in pp collisions with the ALICE detector

Tuesday, 29 September 2015 16:30 (2 hours)

Heavy quarks (charm and beauty) have masses significantly above Λ_{QCD} and, hence, their production cross sections and phase-space distributions in proton-proton (pp) collisions can be well described by perturbative QCD calculations. Therefore, measurements of jets containing heavy-flavour hadrons can shed light on underlying QCD dynamics. Measurements of inclusive heavy-flavour cross sections do not allow to distinguish between different production mechanisms of heavy quarks (pair production, gluon splitting and flavour excitation). More exclusive studies using dijet events might provide further insight on the relevant production mechanisms.

Heavy-flavour dijets can be measured by tagging jets containing electrons originating from decays of heavy-flavour hadrons. In this contribution, the prospects for and the feasibility of such measurements in pp collisions with the ALICE detector at the LHC will be discussed based on Monte-Carlo simulations.

On behalf of collaboration:

ALICE

Primary author: THOMAS, Deepa (University of Texas (US))

Presenter: THOMAS, Deepa (University of Texas (US))

Session Classification: Poster Session

Track Classification: Open Heavy Flavors and Strangeness