Contribution ID: **712** Type: **Parallel session talk**

ϕ meson production relative to hard scatterings in pp collisions using the ALICE detector

Friday 19 July 2024 16:45 (15 minutes)

As the ϕ meson is composed of a pair of strange-antistrange quarks, it puts implicit constraints on modelling the hadronization procedure itself. Perturbative QCD inspired models, such as PYTHIA 8, describe hadronization through parton showers where strangeness is conserved on a quark-by-quark basis. In contrast, quark-gluon plasma inspired models, such as EPOS-LHC and EPOS4, model hadronization by statistical/thermal processes through microcanonical ensembles: as the ϕ meson is inherently neutral in strangeness, it is predicted to have similar dynamics to particles with comparable hadronic masses. Measuring the ϕ meson yield in association with a hard scattering can be used to test which paradigm best describes the underlying dynamics of ϕ meson production. This contribution will highlight new results from ALICE comparing the ϕ meson production in-and-out of jets from pp collisions at $\sqrt{s} = 13.6$ TeV.

Alternate track

I read the instructions above

Yes

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