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I_{AA} in pp, p-Pb and Pb-Pb collisions as a function of the Underlying Event activity with ALICE

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It is well established that high multiplicity pp and p-Pb collisions exhibit many of the signatures associated with the formation of a sQGP in heavy-ion collisions. If final-state interactions are responsible for this, one would also expect some amount of jet modification.

Here, we present the search for jet quenching effects by studying the yield of charged particles associated with high transverse momentum triggered particles measured with the ALICE detector in pp, p-Pb and Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV. The study has been performed as a function of charged-particle multiplicity in the transverse region with respect to the leading-charged particle in the event. We observe a significant suppression in the yield of associated charged particles with $p_{\mathrm{T}} > 4~\mathrm{GeV}/c$ in central Pb-Pb collisions relative to minimum bias pp collisions, while on the near side a moderate enhancement is found. However, we do not observe any suppression (enhancement) in away (near) side in pp and p-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV relative to minimum bias pp collisions, which indicates that jet-quenching effects are small or absent in these systems.

Primary author: TRIPATHY, Sushanta (Universidad Nacional Autonoma (MX))

Presenter: TRIPATHY, Sushanta (Universidad Nacional Autonoma (MX))

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