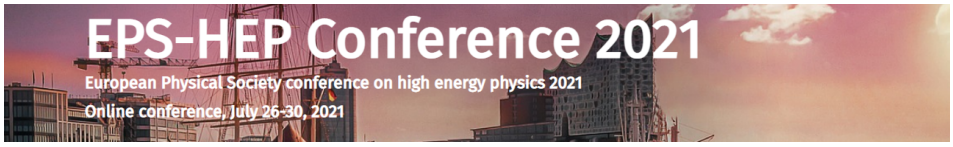

Contribution ID: **569** Type: **Parallel session talk**

Exploring jet fragmentation using two-particle correlations with Λ and K^0_S as trigger particles in pp and Pb–Pb collisions with ALICE

Monday 26 July 2021 15:45 (15 minutes)

Complementary to jet reconstruction, two-particle correlations in $\Delta\eta$ and $\Delta\varphi$ are used to study jets, in particular their particle composition. While in Pb–Pb collisions this is done to characterize the quark–gluon plasma, pp and p–Pb collisions serve as a reference and are of interest on their own for their input into the understanding of particle production mechanisms. Recent ALICE results on the production of strange particles in small systems (pp and p–Pb collisions) reveal the possibility of having similar strange hadron production mechanisms in all collision systems. We present here a study of two-particle correlations triggered with strange hadrons (K^0_S, Λ, $\bar{\Lambda}$) in pp collisions at 13 TeV and 5.02 TeV and in the most central Pb–Pb collisions at $\sqrt{s_{\rm NN}} = 5.02$ TeV. The dependence of the per-trigger yields of primary charged hadrons on the transverse momenta of the trigger and associated particles, as well as on the event multiplicity, will be presented for both the near-side and away-side regions. Moreover, the ratios of these yields to the yields extracted from inclusive hadron-hadron correlations and the nuclear modification factor $I_{\rm AA}$ will be discussed. The results are compared among the three hadron species. In addition, a comparison to different Monte Carlo generators is presented, which allows us to better understand the strangeness production in jets.

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Collaboration / Activity

ALICE

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