Contribution ID: **714** Type: **Parallel session talk**

Measuring system-size and event-topology dependence of (multi-)strangeness production

Thursday 18 July 2024 12:10 (17 minutes)

Measurements of light-flavour particle production in small collision systems at the LHC energies have shown the onset of features that resemble what is typically observed in nucleus- nucleus collisions. New results on the (multi-)strange hadron production in Pb–Pb collisions at $\sqrt{s_{\rm NN}}$ =5.02 and 5.36 TeV will be presented. These results are discussed in the context of recent measurements of light-flavour hadron production in pp collisions at $\sqrt{s}$ =0.9 and 13.6 TeV collected by the ALICE experiment. In order to understand the strangeness production mechanism, angular correlation between multi- strange and associated identified hadrons are measured and compared with predictions from the string-breaking model PYTHIA8, the cluster hadronisation model HERWIG7, and the core-corona model EPOS-LHC. In addition, the connection of strange hadron production to hard scattering processes and to the underlying event is studied, using di-hadron correlations triggered with the highest-$p_{\rm T}$ hadron in the event.

Alternate track

I read the instructions above

Yes

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