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Correlation of strangeness production with charged hadrons in proton-proton collisions with ALICE

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Measurements of the relative production of strange hadrons in high-energy hadronic collisions have proven to be an important tool for understanding hadronization. In particular, it has been shown that strangeness is produced more abundantly in high-multiplicity pp and p-Pb collisions at the LHC, a phenomenon known as "strangeness enhancement" that has sparked significant interest in both the experimental and theoretical communities.

In this work, correlations between strange hadrons and high- $p_{\{\{T\}\}}$ charged particles are investigated. The results are shown for both Run 2 and Run 3 data-taking periods, the latter providing a significantly larger amount of data and thus allowing a better determination of strangeness-production mechanisms. As these measurements serve as crucial input for phenomenological models aiming to describe the strangeness enhancement, we also discuss how the models are compared with the data.

Category

Experiment

Collaboration

ALICE

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