

Measurement of strange baryon production in charged-particle jets in pp and p-Pb collisions with ALICE

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Collective effects similar to those in Pb-Pb collisions have been observed in smaller systems, such as pp and p-Pb collisions. Among these is the increase of the strange to non-strange hadron ratio with charged-particle multiplicity density. Understanding these effects requires a detailed description of the production mechanisms of strange hadrons, which is obscured by large uncertainties in the gluon-initiated particle shower and hadronisation models. Much of our knowledge of particle showers is based on results from \sqrt{s} collisions, which is sensitive to quark-initiated fragmentation patterns, but leaves gluon fragmentation poorly constrained. By studying the production of strange hadrons in hadronic collisions, which are rich in gluon-initiated final states, we can probe these mechanisms and, using data from p-Pb collisions, we can disentangle the contributions in jets from those of the bulk.

In this talk, we present published results on the production of K_S^0 , $\Lambda(\bar{\Lambda})$, Ξ^\pm and Ω^\pm hadrons in charged-particle jets and the underlying event in pp and p-Pb collisions with ALICE.

In addition, we show a novel measurement of jet fragmentation into Λ and K_S^0 hadrons in pp collisions at $\sqrt{s}=13.6$ TeV with ALICE.

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