

Correlations between strange hadrons in ALICE

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Multi-strange baryons offer a unique opportunity to study the role of di-quark production in baryon formation processes. The Lund string fragmentation model is the most widely used description of hadron formation. In this model, the quarks that hadronize are produced through a phenomenon called string breaking, where the string is an analogy for the strong force that acts between two quarks. When the distance between these two quarks increases, the string may break by creating new pairs consisting of (anti-)quarks and, crucially, di-quarks. Since this production is local it will lead to correlations between baryons and other hadrons. We will present results from a Monte Carlo study using PYTHIA, an event generator based on the Lund model, and discuss how the correlations depend on the configuration of the simulation. We will also look at the feasibility to experimentally test the predictions.

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