Production of Σ (1385)[±] and Ξ (1530)⁰ measured by ALICE in pp, p-Pb and Pb-Pb collisions at the LHC

The measurement of resonances in ultra-relativistic heavy-ion collisions allows one to study the properties of the hadronic medium. Resonances with short lifetimes compared to the duration of the hadronic phase are good candidates to probe the interplay of particle re-scattering and regeneration in the hadronic phase, which result in a modification of the measured yield of resonances.

Measurements of $\Sigma(1385)^{\pm}$ and $\Xi(1530)^{0}$ have been performed with the ALICE detector at the LHC in pp, p–Pb and Pb–Pb collisions at different energies. We report on the transverse momentum $(p_{\rm T})$ spectra, their mean values and yields as a function of the event multiplicity. The $p_{\rm T}$ -integrated yield ratios of excited to ground-state hyperons and to pions are discussed as a function of the mean charged-particle multiplicity densities and compared with models.

Preferred Track

Collective Dynamics

Collaboration

ALICE

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