

WPCF 2023 - XVI Workshop on Particle Correlations and Femtoscopy & IV Resonance Workshop 2023



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Hadronic resonance production with ALICE at LHC

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Hadronic resonances have been used as a useful tool for studying the hadron gas phase produced in the late stages of high-energy nuclear collisions. The resonance yields are affected by the hadronic interactions happening during the hadron-gas phase, thus measuring resonance production is useful to constrain the hadron-hadron interactions. The ALICE experiment is suitable for measuring hadronic resonances thanks to its excellent tracking and particle identification capabilities over a broad momentum range. In this talk, the most recent results on resonances in pp, p-Pb, Xe-Xe and Pb-Pb collisions at various centre-of-mass energies, highlighting new results on $\rho(770)0$, $K^*(892)$, $\Phi(1020)$, $\Sigma(1385)\pm$, $\Lambda(1520)$, $\Xi(1530)0$, and $\Xi(1820)$ are presented. These results are used to interpret the system-size and collision-energy evolution of transverse momentum spectra, yields, average transverse momentum, and yield ratios to longer-lived hadrons with comparison to lower energy measurements from previous experiments and model calculations.

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