

Study of resonances flow and production in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.36$ TeV with ALICE

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Hadronic resonances play an important role in understanding the different phases of the evolution of relativistic heavy-ion collisions. Due to the short lifetime of resonances, their yields may be influenced by interactions in the final stage hadronic phase where rescattering can alter the momentum of the resonance decay products, preventing their reconstruction through invariant-mass analysis, while pseudo-elastic hadron scattering can regenerate them. ALICE measurements have shown evidence of the rescattering effect through the measurements of resonance yields and comparing them with stable hadrons. Another key observable that provides insight into final-state effects is the measurement of elliptic flow (v_2), which results from the system's anisotropic expansion due to the initial spatial asymmetry in the collision geometry. Late-stage hadronic rescattering can alter the momentum distributions of resonances, thereby influencing their elliptic flow. Therefore, measuring the elliptic flow of resonances like K^{*0} and ϕ along with their yields can provide deeper insights into the impact of rescattering effects.

In this contribution, we present the latest ALICE results from Run 3, focusing on the measurement of elliptic flow and the production of K^{*0} and ϕ resonances in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.36$ TeV. The measurements will be compared with the ALICE results from Run 2 data.

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