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Triangular flow in Au + Au collisions at $\sqrt{s_{NN}}$ = 17.3 GeV from RHIC-STAR

Triangular flow in heavy-ion collisions, v_3 , represents the third harmonic coefficient in the Fourier expansion of the azimuthal distribution of produced particles relative to the collision event plane. Since v_3 is sensitive to initial fluctuations of nucleons, it serves as a valuable tool for studying the fluctuations of the early initial conditions of the system and the subsequent evolution process.

Using the RHIC-STAR Beam Energy Scan dataset, we will present measurements of v_3 for π^{\pm} , K^{\pm} , p, \bar{p} , Λ , $\bar{\Lambda}$, K_S^0 , Ξ^- , $\bar{\Xi}^+$, Ω^- , $\bar{\Omega}^+$ and ϕ mesons in Au + Au collisions at $\sqrt{s_{NN}}$ = 17.3 GeV. We will discuss the centrality dependence of v_3 as well as the number of constituent quark scaling (NCQ scaling) for all the particles mentioned above.

Category

Experiment

Collaboration (if applicable)

STAR

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