

Study of NCQ scaling of elliptic and triangular flow for identified hadrons in Au+Au collisions at $\sqrt{s_{NN}} = 11.5 - 200$ GeV

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A main purpose of Beam Energy Scan experiments is to study the properties of the Quark-Gluon-Matter (QGM) forming in the collisions of two nuclei. Anisotropic flow of produced particles is one of the important observables sensitive to the transport properties of the QGM created in relativistic heavy-ion collisions. Anisotropic flow of identified particles measured in Au + Au collisions at top RHIC energy $\sqrt{s_{NN}} = 200$ GeV exhibits a remarkable NCQ scaling with number of constituent quarks and transverse kinetic energy.

In this work, we report on the calculations of elliptic (v_2) and triangular (v_3) flow of identified charged hadrons produced in Au+Au collisions at 11.5 -200 GeV from several state of the art models and provide the direct comparison with published results from RHIC BES experiments.

Further insights about the mechanism of NCQ scaling of anisotropic flow will be discussed.

The speaker is a student or young scientist

Yes

Section

1. Intermediate and high energies, heavy ion collisions

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