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The elliptic flow of π^\pm , K^\pm , p , and \bar{p} in Au + Au collisions at $\sqrt{s_{NN}} = 7.7$ and 9.2 GeV from STAR

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The elliptic flow (v_2) is the second Fourier coefficient of azimuthal distributions of produced particles in heavy-ion collisions. Measurements of identified particle v_2 is one of the most informative ways in studying the properties of hot and dense nuclear matter created in heavy-ion collisions.

In this poster, elliptic flow of identified hadrons (π^\pm , K^\pm , p , and \bar{p}) in $\sqrt{s_{NN}} = 7.7$ and 9.2 GeV Au+Au collisions, data collected by the STAR experiment in the second phase of the beam energy scan (BES-II), will be presented. We will show v_2 as a function of p_T for these particles in 0-80%, 0-10%, 10-40%, and 40-80% centrality bins and compare to those from other collision energies. In addition, the number of constituent quark (NCQ) scaling in v_2 will be studied, and the v_2 results will be compared to different model calculations.

Category

Experiment

Collaboration (if applicable)

STAR

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