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Study of J/ ψ elliptic flow in Zr+Zr and Ru+Ru collisions at $\sqrt{s_{\rm NN}}$ = 200 GeV with the STAR experiment

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Quark-gluon plasma (QGP) is an interacting localized assembly of quarks and gluons at thermal and chemical equilibrium at extremely high temperature or density. It is believed that the suppressed J/ ψ production in relativistic heavy-ion collisions is one of the important experimental observations for the production of the QGP. However, in order to correctly interpret those results, the hot and cold nuclear effects need to be distinguished. The elliptic flow (v_2) of the J/ ψ mesons is another way to study the properties of QGP. Measurements of J/ ψ v_2 in different collision systems and energies will provide unique and important information. In this contribution, we will present the progress of the study of J/ ψ v_2 in different transverse momentum and centrality intervals using Zr+Zr and Ru+Ru collisions at $\sqrt{s_{\rm NN}}$ = 200 GeV with the STAR experiment at RHIC.

Primary author: STAR COLLABORATION

Presenter: LIU, Yu-Ming

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