

1 Study of J/ψ elliptic flow in Zr+Zr and Ru+Ru collisions at
2 $\sqrt{s_{NN}} = 200$ GeV with the STAR experiment

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6 **Abstract**

7 Quark-gluon plasma (QGP) is an interacting localized assembly of quarks and
8 gluons at thermal and chemical equilibrium at extremely high temperature or density.
9 It is believed that the suppressed J/ψ production in relativistic heavy-ion collisions is
10 one of the important experimental observations for the production of the QGP. However,
11 in order to correctly interpret those results, the hot and cold nuclear effects need to be
12 distinguished. The elliptic flow (v_2) of the J/ψ mesons is another way to study the
13 properties of QGP. Measurements of J/ψ v_2 in different collision systems and
14 energies will provide unique and important information.

15 In this contribution, we will present the progress of the study of J/ψ v_2 in
16 different transverse momentum and centrality intervals using Zr+Zr and Ru+Ru
17 collisions at $\sqrt{s_{NN}} = 200$ GeV with the STAR experiment at RHIC.