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Prospect of Non-Prompt J/ψ Measurements at STAR ZAOCHEN YE, University of Illinois at Chicago, STAR COLLABORATION — Heavy quarks (charm and bottom) are excellent probes to study the properties of the Quark-Gluon Plasma (QGP), a hot, dense, and strongly interacting nuclear matter created in heavy-ion collisions.
Measurements of non-prompt J/ψ production from B hadron decays in heavy-ion collisions can provide information about interactions between bottom quarks and the QGP, and the properties of the hot medium itself. The Heavy Flavor Tracker (HFT) and Muon Telescope Detector (MTD) have been fully installed into the STAR experiment and taken data since the beginning of 2014. The HFT significantly improves the track impact parameter resolution, and thus allows separation between the prompt and non-prompt J/ψ. The MTD enables STAR to identify muons, and thus allows J/ψ studies in the dimuon decay channel. In this talk we will describe simulation studies for non-prompt J/ψ at STAR in both the dielectron and dimuon decay channels. The projections for the nuclear modification factor R_{AA} and elliptic flow v_2 of non-prompt J/ψ will be presented.

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