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## Very low- $p_T$ $J/\psi$ production in Au+Au collision at $\sqrt{s_{NN}} = 200$ GeV at STAR

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The strong electromagnetic field generated by the colliding nuclei in heavy-ion collisions can be represented by a spectrum of equivalent photons, leading to photon-induced interactions. Significant enhancements of the  $J/\psi$  production via  $e^+e^-$  decay channel at very low transverse momentum ( $p_T$ ) have been observed by the STAR and ALICE collaborations in peripheral heavy-ion collisions. The excess yields exhibit a much weaker centrality dependence compared to the expectation for hadronic production, and are consistent with coherent photon-nucleus interactions. Measurement of  $J/\psi$  production via  $\mu^+\mu^-$  decay channel can provide additional inputs to investigate these phenomena.

In 2014 and 2016, the STAR experiment recorded large samples of Au+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV with the di-muon trigger enabled by the Muon Telescope Detector. In this presentation, we will show the measurement of invariant yield and nuclear modification factor of  $J/\psi$  at  $p_T < 0.15$  GeV/c via  $\mu^+\mu^-$  decay channel. Physics implications will also be discussed.

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