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J/ azimuthal anisotropy in Au+Au collisions at sqrt(s_{NN}) = 200 GeV

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In relativistic heavy-ion collisions, J/ mesons can be produced via different mechanisms, and the large mass of the charm quark makes these mesons a valuable probe to the thermalization of the medium. The study of J/ azimuthal anisotropy allows for a disentanglement of various production processes and access to charm quark azimuthal anisotropy. J/ produced from direct pQCD processes have little azimuthal anisotropy due to the lack of collectivity and initial emitting azimuthal preference, while J/ produced from recombination of charm quarks in the medium are expected to inherit considerable azimuthal anisotropy of the constituent charm quarks (assuming they are well thermalized).
In this talk, we will present measurements of J/ azimuthal anisotropy in Au+Au collisions at Sqrt(s_{NN}) = 200 GeV, using data taken by STAR during RHIC operations in the years 2010 and 2011. J/ mesons are reconstructed via the di-electron channel. The anisotropy will be presented as a function of the event centrality and J/ transverse momentum.

Summary

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