

Improving the J/psi Production Baseline at RHIC and the LHC

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We assess the theoretical uncertainties on the inclusive J/psi production cross section in the Color Evaporation Model using values for the charm quark mass, renormalization and factorization scales obtained from a fit to the charm production data [1]. We use our new results to provide improved baseline comparison calculations at RHIC and the LHC. We calculate the fraction of J/psi production from B decays as a function of p_T with these parameters. We also study cold matter effects on J/psi production at leading relative to next-to-leading order in the CEM within this approach [2].

[1] A. D. Frawley, R. Nelson and R. Vogt, in preparation.

[2] R. Nelson and R. Vogt, in progress.

Primary author: VOGT, Ramona (LLNL and UC Davis)

Co-author: NELSON, Randy (LLNL and UC Davis)

Presenter: VOGT, Ramona (LLNL and UC Davis)

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