

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Production and polarization of direct J/ψ to $\mathcal{O}(\alpha_s^3)$ in the improved color evaporation model in collinear factorization¹ VINCENT CHEUNG, University of California, Davis, RAMONA VOGT, Lawrence Livermore National Laboratory and University of California, Davis — One of the best ways to understand hadronization in QCD is to study the production of quarkonium. The color evaporation model (CEM) and Nonrelativistic QCD (NRQCD) can describe production yields rather well but spin-related measurements like the polarization are stronger tests. In this talk, we will present the first calculation of quarkonium polarization in the improved color evaporation model (ICEM) by considering all diagrams at the order of α_s^3 and integrating over all color states.

¹This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344 and supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics (Nuclear Theory) under contract number DE-SC-0004014.

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Date submitted: 06 Jan 2021

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