

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Quarkonia polarization and Quantum tomography¹ DANIEL TAPIA TAKAKI, JOHN RALSTON, JOHN MARTENS, University of Kansas — The polarization of quarkonia in proton-proton and heavy-ion collisions has recently received great attention. Both at RHIC and LHC, no sizable polarization has been observed for J/psi production in both pp and PbPb collisions. In pp collisions, NLO calculations based on the Color-Single Model and the Non-Relativistic QCD model cannot describe the data as a function of transverse momentum. In this talk, we provide for the first time a description of the data utilizing Quantum Tomography, which is a model independent method used to reconstruct the density matrix of the system. We use recent experimental measurements at RHIC and LHC to analyze the polarization parameters in a novel way.

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Date submitted: 08 Jan 2021

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