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Charmonium Cold Nuclear matter effects: Unraveling a unique signature of the QGP LOREN LINDEN LEVY, University of Colorado, PHENIX COLLABORATION — Charmonium suppression in hot and dense nuclear matter has been touted as an unique signature for the production of deconfined QCD matter. In order to search for this effect one must have a clear understanding of the modifications present in the charmonium spectrum resulting from the interaction with normal cold nuclear matter. The PHENIX collaboration has measured J/Psi spectrum from deuteron-gold (d-Au) interactions at $\sqrt{s} = 200$ GeV and compared these with a proton-proton baseline in order to constrain these cold nuclear matter effects. We will present the latest analysis from RHIC Run-8, with an integrated luminosity of 80 nb⁻¹, compared to the 2.4 nb⁻¹ collected in RHIC Run-3.

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