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Gluon saturation effects in relativistic U+U collisions¹ ANTHONY KUHLMAN, The Ohio State University — We examine the entropy production in relativistic U+U collisions using a Color Glass Condensate type picture as the basis for our calculations. In this framework, we find that the peak entropy produced in tip-on-tip uranium collisions is approximately 30% greater than that seen in central Au+Au. We show that while the resulting difference in the charged particle multiplicity from tip-on-tip versus side-on-side collisions predicted by the Kharzeev-Levin-Nardi (KLN) model is smaller than that predicted in our previous Glauber model estimates, it is still large enough to allow for experimental discrimination between average orientations of the uranium nuclei, and illustrate this with results from a Monte Carlo simulation.

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