Abstract Submitted
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Comparing correlation predictions from a glasma flux-tube model with measurements[1] LANNY RAY, The University of Texas at Austin, THOMAS TRAINOR, University of Washington — A Glasma flux-tube model has been proposed to explain strong elongation on relative pseudorapidity (η) of the same-side 2D peak in minimum-bias angular correlations from $\sqrt{s_{NN}} = 200$ GeV Au-Au collisions. In this model the same-side peak, or "soft ridge," is said to arise from coupling of the flux tubes to radial flow. Gluons radiated transversely from the flux tubes are boosted by radial flow to form a narrow structure or ridge on azimuth. We have tested this conjecture by comparing predictions for particle production, spectra and transverse momentum correlations [1] from the Glasma model and conventional fragmentation processes with measurements. We conclude that the Glasma model is not relevant for understanding the same-side η-elongated correlations in Au-Au collisions at RHIC. A two-component model (soft plus hard) of hadron production, including minimum-bias parton fragmentation, provides a quantitative description of most data although the η elongation remains unexplained.

[1] T. Lappi, arXiv:1011.0821 [hep-ph] (2010).

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