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Shadowing in Glauber models

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The two component Monte-Carlo Glauber model predicts a knee-like structure in the centrality dependence of elliptic flow v_2 in Uranium+Uranium collisions at $\sqrt{S_{NN}} = 193$ GeV. It also produces a strong anti-correlation between v_2 and dN_{ch}/dy in the case of top ZDC events. However, none of these features have been observed in data. We address these discrepancies by including the effect of nucleon shadowing to the two component Monte-Carlo Glauber model. Apart from addressing successfully the above issues, we find that the nucleon shadow suppresses the event by event fluctuation of various quantities, e.g. ε_2 which is in accordance with expectation from the dynamical models of initial condition based on gluon saturation physics. Ref. arXiv: 1510.01311 [nucl-th]

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