

## Simulating thick pancake collisions

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A common simplification for describing the early stages of heavy ion collisions is the assumption that incoming nuclei are Lorentz-contracted to infinitely thin “pancakes”. This leads to boost-invariance of the produced glasma-state and reduces the system to effectively 2+1 dimensions. This assumption is less justified at lower collision energies. In a recent work [1] we showed how to allow for a finite pancake thickness in the simulation of the production of a glasma state within the McLerran-Venugopalan model. This is achieved by using the colored particle-in-cell (CPIC) method in the laboratory frame. We verify that this method agrees with boost-invariant approaches for thin nuclei and find deviations in observables like the pressure anisotropy for thicker nuclei.

[1] D. Gelfand, A.I. D. Müller, arXiv:1605.07184

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