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# Suppression of anisotropic flow without viscosity

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Relativistic viscous hydrodynamics calculations can describe a wide range of observables in relativistic heavy ion collisions. However, many studies suggest that the hot and dense system created is not in local thermal equilibrium, resulting in a contradiction for the applicability of hydrodynamics. In hydrodynamic calculations, a crucial step is to convert the fluid fields into observable particles. The most common approach is to use the Cooper-Frye formula, which assumes thermal (Boltzmann/Bose/Fermi) distributions at the conversion. In this talk, I show how local equilibrium distributions of the Tsallis form can affect observables, resulting in non-exponential particle distributions and a viscous-like suppression of the anisotropic flow. By comparing the calculation to experimental data, I will estimate the degree of non-Boltzmann effects on the freeze-out surface.

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