



ID de Contribution: 54

Type: Non spécifié

Dynamical attractors of distribution function and v_n from pp to AA systems in full kinetic theory: role of system size and interaction strength

lundi 4 novembre 2024 14:10 (25 minutes)

We investigate the appearance of dynamical attractors in 3+1D systems by means of a Relativistic Full Boltzmann Transport approach. We look at the distribution function and its momentum moments and at the anisotropic flows v_n and at how they lose memory about their initial conditions. Our analysis is performed in a wide range of system size and interaction strength, starting from typical pp setup and going to pA up to AA collisions. We study how the emergence of universality is related to these parameters, and in particular to the interplay between the transverse system size R and the mean free path λ_{mfp} , relating the ratio R/λ_{mfp} to the opacity parameter $\hat{\gamma}$, previously introduced in literature. We also investigate how initial azimuthal correlations in momentum space affect final observables, delving in particular in the system size dependence.

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