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Hydrodynamization and Attractors at Intermediate Coupling

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The tremendous success of hydrodynamics in describing the Quark-Gluon Plasma poses many challenges to our understanding of collective phenomena in interacting systems out of equilibrium. Recently the concept of hydrodynamic attractors, which generalize the gradient expansion beyond local thermal equilibrium, has been put forward. In this talk we will present the first analysis of this configuration at intermediate coupling. Using holography, we resum large orders in the gradient expansion to constrain the hydrodynamization dynamics and the attractor beyond the strong coupling limit. We find that independent of the coupling, hydrodynamization occurs at early times where the pressure anisotropies are large, and that the attractor is determined by first order hydrodynamics. By comparing our results to kinetic theory, we also observe that the approach of different configurations to the attractor is faster in gravity/based computations than in an extrapolation of kinetic theory to intermediate coupling.

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