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The initial state and early time dynamics in heavy-ion collisions RONALD BELMONT, Univ of Colorado - Boulder

The standard picture of heavy ion collisions is that large systems (collisions of large nuclei like Au+Au and Pb+Pb) create a quark-gluon plasma that exhibits collective behavior indicative of nearly inviscid hydrodynamical evolution. Recently, data from small systems (collisions of a small projectile and a large target like d+Au and p+Pb) have been found to exhibit strikingly similar evidence for collective behavior. Contrariwise, while there is a wealth of evidence for particle suppression and jet attenuation in large systems, such effects are notably absent in small systems. In this talk we give an introduction to the initial state and early time dynamics of heavy ion collisions, giving an overview of results in large and small systems.