

Abstract Submitted
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Using Data to Determine the Initial Conditions in Heavy Ion Collisions RON SOLTZ, IRAKLI GARISHVILI, BETTY ABELEV, LLNL — We have developed a framework, the Comprehensive Heavy Ion Model Evaluation Reporting Algorithm (CHIMERA) to determine the optimal model and initial conditions of heavy ion collisions by comparing to data from a variety of observables. We have used this framework to study simple participant and binary collisions scaling in the presence of pre-equilibrium flow in the context of the VH2 2D+1 viscous hydrodynamic model with UrQMD afterburner for data from RHIC. We have also used this framework to explore the significance of variations in the equation of state. We have recently begun to apply this framework to a new hydro-solver tools known as CHOMBO, which incorporates adaptive mesh refinement techniques that are well suited to the study of initial state fluctuations. We will review results from using CHIMERA with VH2, and discuss future plans for using CHOMBO to study initial state fluctuations.

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