Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

Inferring properties of Quark Gluon Plasma[1] DEREK EVERETT, The Ohio State University, JETSCAPE COLLABORATION — We present state-of-the-art quantifications of transport properties of quark-gluon plasma using hadronic observables from both the Relativistic Heavy Ion Collider and the Large Hadron Collider, simulated with the JETSCAPE framework. We focus on the first-order transport coefficients of the Quantum Chromodynamic plasma, the specific shear and bulk viscosities. Important sources of theoretical uncertainty are quantified and accounted for in final estimates of the viscosities. These include the uncertainty in modelling the first fm/c of the collisions, as well as the theoretical ambiguity in mapping hydrodynamic fields to non-equilibrium hadronic spectra. Additionally, some uncertainty stemming from second-order transport coefficients is discussed. Finally, the hydrodynamic hybrid model is compared to model variations, strengthening its support.

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Date submitted: 23 Jun 2020   Electronic form version 1.4