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QCD Dynamical Properties from Holographic Black Holes¹ JOAQUIN GREFA JUMBO, CLAUDIA RATTI, ISRAEL PORTILLO, University of Houston, ROMULO ROUGEMONT, UERJ, JACQUELYN NORONHA-HOSTLER, JORGE NORONHA, University of Illinois at Urbana-Champaign — By using gravity/gauge correspondence, we employ an Einstein-Maxwell-Dilaton model to compute the dynamical properties of a baryon rich quark-gluon plasma. The family of 5-dimensional holographic black holes, which are constrained to mimic the lattice QCD equation of state at zero density, is used to investigate the temperature and baryon chemical potential dependence of the bulk and shear viscosities, baryon charge transport coefficients, and energy loss of light and heavy quarks with a particular focus on the behavior of these observables on top of the critical end point and the line of first order phase transition predicted by the model.

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