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Critical Exponents from a Holographic Critical Point.[1] JOAQUIN GREFA, CLAUDIA RATTI, ISRAEL PORTILLO, Univ of Houston, ROMULO ROUGEMONT, UFNR, JACQUELYN NORONHA-HOSTLER, JORGE NORONHA, University of Illinois Urbana-Champaign — By using the holographic gauge/gravity correspondence, we construct a family of five-dimensional black holes to map the thermodynamics of strongly interacting matter. The black holes solutions, which are constrained to mimic the equation of state from lattice QCD at vanishing chemical potential, display a critical end point with a first order phase transition line. We calculate the critical exponents for the holographic critical point and compare them with other critical points from the literature.

[1]NSF, DOE

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