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**Quasiparticle equation of state for anisotropic hydrodynamics** MUBARAK ALQAHTANI, MOHAMMAD NOPOUSH, MICHAEL STRICKLAND, Kent State University — We present a new method for imposing a realistic equation of state in anisotropic hydrodynamics. The method relies on the introduction of a single finite-temperature quasiparticle mass which is fit to lattice data. By taking moments of the Boltzmann equation, we obtain a set of coupled partial differential equations which can be used to describe the 3+1d spacetime evolution of an anisotropic relativistic system. We then specialize to the case of a 0+1d system undergoing boost-invariant Bjorken expansion and subject to the relaxation-time approximation collisional kernel. Using this setup, we compare results obtained using the new quasiparticle equation of state method with those obtained using the standard method for imposing the equation of state in anisotropic hydrodynamics. We demonstrate that the temperature evolution obtained using the two methods is nearly identical and that there are only small differences in the pressure anisotropy. However, we find that there are significant differences in the evolution of the bulk pressure correction.

Mubarak Alqahtani
Kent State University

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