

Lattice study of the second order transport coefficients

We attempt to constrain transport coefficients in second order viscous hydrodynamics by $SU(3)$ lattice gauge simulation for the range of temperature $0.5 < T/T_c < 4$. On the basis of the relaxation time approximation and Kubo formula, we relate a ratio of the shear viscosity to the relaxation time of the shear stress to fluctuations of off-diagonal components of energy-momentum tensor on the lattice and evaluate them.

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