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Transport coefficients from the Nambu-Jona-Lasinio model for $SU(3)_f$

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Based on the Nambu-Jona-Lasinio model for 3 flavours we study the transport properties of strongly interacting matter in vicinity of the phase transition. We present our results on the temperature dependence of the shear and bulk viscosity (calculated within the relaxation time formalism), as well as of the electric and heat conductivity.

We compare these results with recent lattice data and the transport coefficients of the DQPM (dynamical quasi-particle model). These transport coefficients allow for discussing quantitatively how fast particles traverse the quark gluon plasma and open the possibility to compare different approaches for the expansion of the quark gluon plasma created in ultrarelativistic heavy ion collisions.

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