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## Late time thermalization in the Quark Gluon Plasma

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We explain the approach to thermal equilibrium of strongly coupled non-conformal plasmas using the AdS/CFT correspondence. The theories we study are the holographic duals to Einstein gravity coupled to a scalar with an exponential potential. The coefficient in the exponent,  $X$ , is the parameter that controls the deviation from the conformally invariant case. For these models we obtain analytic solutions for the plasma expansion in the late-time limit, under the assumption of boost-invariance, and we determine the scaling behaviour of the energy density, pressure, and temperature as a function of time, which is found to agree with the hydrodynamical expectation. We find that the temperature decays as a function of proper time as  $T \sim t^{-s/4}$  with the exponent  $s$  determined in terms of the nonconformality parameter  $X$  as  $s = 4(1-4X^2)/3$ .

### Summary

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