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Evolution of the chiral condensate in AdS/QCD with time-dependent temperature

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The behaviour of the chiral condensate at finite temperature computed in AdS/QCD with a time-dependent background is shown. Two different scenarios are analysed: in the first a general power-law time dependence is assumed for the temperature, while in the second the energy-momentum tensor at late times reproduces the one found in viscous hydrodynamics. Depending on how quickly the temperature changes over time, the chiral transition shifts towards lower temperatures if the system is cooling, and higher temperatures if it is heating. In some cases, oscillations around the equilibrium values are observed before thermalization. A prethermalization stage is found in the chiral limit if the initial condition is set at a temperature close to the critical one.

Secondary track

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