Finite time calculations for hard parton production relevant to the QGP

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AdS/CFT computations have been used to describe the energy loss of QCD-like particles moving through a strongly coupled plasma, but little is understood regarding the initial conditions of these jets.

We use the Schwinger-Keldysh finite-time formalism applied to an interacting scalar field theory to derive a perturbative expression for the energy momentum tensor associated with hard particle production. This is used as a foundational model to study jet production in the QGP.

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