

Gluon, fermion and scalar spectral functions at strong fields

Tuesday, 15 November 2022 11:30 (20 minutes)

We compute gluon, fermion and scalar spectral functions in highly occupied systems far from equilibrium using classical-statistical lattice simulations. We compare our nonperturbative results for fermion and gluon spectral functions in two and three spatial dimensions with perturbative hard loop calculations, extract the full momentum dependence of the damping rates of quasiparticles and discuss the implications on the quark-gluon plasma at initial stages in heavy-ion collisions, with preliminary results on the Glasma spectral function. Key results are then compared with scalar $O(N)$ models.

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I apply for financial support (non-student application)

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