

Contribution ID: 20 Type: Poster

## Scale invariant hard thermal loop resummation.

Monday, 21 May 2018 18:30 (0 minutes)

I will illustrate how our recently developed renormalization group optimized perturbation theory (RGOPT) resums perturbative expansions in thermal field theories. The convergence and scale dependence of RGOPT thermodynamical quantities are drastically improved as compared to standard perturbative expansions, and it cures the odd drastic scale dependence observed in other related methods such as the screened perturbation or (resummed) hard-thermal-loop (HTL) perturbation. I will present some recent results in scalar models, and first applications to HTL resummation for QCD thermodynamical quantities, also explaining the additionnal calculations needed in gauge theories with respect to standard HTLpt within our framework.

Primary author: KNEUR, jean-loic (L2C montpellier)

Presenter: KNEUR, jean-loic (L2C montpellier)

Session Classification: Poster Session