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## T-matrix Analysis of Static Wilson Line Correlators from Lattice QCD at Finite Temperature

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We utilize a previously constructed thermodynamic T-matrix approach to the quark-gluon plasma (QGP) to calculate Wilson line correlator of a static quark antiquark pair and apply them to the results from realistic 2+1-flavor lattice-QCD (lQCD) computations. Earlier reconstructions of static quarkonium spectral functions from lQCD data have indicated an absence of screening of the heavy-quark (HQ) potential in the QGP, while previous T-matrix applications to the HQ free energies favor screening effects in combination with HQ mass shifts induced by in-medium selfenergies. The pertinent T-matrix results can semi-quantitatively describe the lQCD data for Wilson line correlators but refinements of the input parameters are necessary to improve the agreement, providing new insights. This renders the T-matrix a more accurate and reliable tool to make predictions for the spectral and transport properties of the QGP.

### Category

Theory

### Collaboration (if applicable)

HEFTY

**Primary author:** TANG, Zhanduo

**Co-authors:** MUKHERJEE, Swagato; PETRECKZY, Peter; RAPP, Ralf

**Presenter:** TANG, Zhanduo

**Session Classification:** Heavy Flavor

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