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The real-time finite-temperature static potential: a higher order calculation

Thursday 22 August 2024 11:00 (20 minutes)

We calculate the leading and subleading corrections to the real-time static potential in a high-temperature quark-gluon plasma for distances smaller than the screening length. The calculation involves one-loop two and four point functions in the hard-thermal-loop effective theory. We apply our results to estimate the dissociation temperature, the thermal mass shift and the thermal decay width of the bottomonium ground state. We compare them with lattice results in the literature.

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