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## Thermal entropic destruction of quark-antiquark pair from dynamical holographic QCD

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Lattice QCD results indicate a large amount of entropy associated with the quark-antiquark pair near the deconfinement temperature. The lattice data show a sharp peak in the quark-antiquark entropy near the transition temperature. Further, this entropy increases with inter quark distances. In this work, we used the gauge/gravity duality to reproduce these lattice results. For this purpose, we consider a phenomenological bottom-up Einstein-Maxwell-dilaton gravity model and analytically construct the black hole solutions whose dual boundary theories satisfy the properties of confinement as well as deconfinement. We study the entropy of the quark-antiquark pair in confinement/deconfinement phases and find that our holographic model qualitatively reproduces the corresponding lattice results for the entropy. We further provide holographic results with chemical potential

### Summary

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