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Spatial string tension at high temperatures and quantitative tests of dimensionally reduced effective theories

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We calculate spatial string tension in 2+1 flavour QCD in (3,1) dimensions within temperature range of [166MeV, 1000MeV] using spatial Wilson Loops with HYP smearing. We used Highly Improved Staggered Quark action for fermions and tree level Symanzik improved gauge action for gluons at two lattice spacings corresponding to temporal extent $N_\tau = 8, 10$. We then compare our results with dimensionally reduced effective theories at high temperatures (EQCD and MQCD) to test the onset of dimensional reduction in QCD.

Parallel Session (for talks only)

QCD at nonzero temperature and density

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