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Meson correlation functions at high temperature QCD: $SU(2)_{CS}$ symmetry vs. free quarks

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We report on the progress of understanding spatial correlation functions in high temperature QCD. We study isovector meson operators in Nf=2 QCD using domain-wall fermions on lattices of Ns=32 and different quark masses. It has previously been found that at $\sim 2T_c$ these observables are not only chirally symmetric but in addition approximately $SU(2)_{CS}$ and $SU(4)$ symmetric. In this study we increase the temperature up to $5T_c$ and can identify convergence towards an asymptotically free scenario at very high temperatures.

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