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## Symmetries of Two-Point Spatial Correlators in $N_f = 2 + 1$ QCD above Critical Temperature

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Based on simulations of 2+1 flavor lattice QCD with Möbius domain wall fermions at high temperatures, we use a series of recently developed spatial correlation functions to study the screened masses for quarks in meson bound states. We compare these screened masses with the symmetries of the correlators using a pair of fitting ansatz for various quark masses and lattice sizes with temperatures above the critical point. Using these spatial correlation functions we can analyze the lattices by way of standard  $SU(2)_L \times SU(2)_R$  symmetry as well as examine the behaviors of the anomalous axial  $U(1)_A$  symmetry above the critical point. Additionally we explore a possible and emergent chiral-spin symmetry  $SU(2)_{CS}$  which we discuss at length.

### Topical area

QCD at Non-zero Temperature

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