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Meson Screening Masses in 2+1-Flavor QCD

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Screening masses are useful observables since they provide information regarding the various excitations in the QGP, as well as regarding the restoration of various symmetries. They are also easier to calculate in lattice QCD as compared to temporal correlators. We present results from a high statistics determination of various meson screening correlators for temperatures between approximately 140 MeV and 2.5 GeV. Using lattices with Nt = 6 - 16, we also provide a continuum extrapolation for the masses. We comment upon the implications of our results regarding the restoration of chiral and axial symmetry in the quark-gluon plasma. Our lattices were generated using the 2+1-flavor HISQ action, with the strange quark fixed to its physical value and the light quark taking one of two values: ml = ms/20 and ml = ms/27.

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