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## Temperature dependence of meson screening masses; a comparison of effective model with lattice QCD

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We analyze the pion screening mass calculated with lattice QCD, using the entanglement-PNJL (EPNJL) model. The EPNJL model well reproduces the lattice QCD result. We then predict the sigma meson screening mass with the model. The chiral symmetry restoration can be exhibited by the difference between the pi and sigma meson screening masses. After the chiral symmetry restoration, the two screening masses rapidly approach the free-field limit from below. Furthermore, we consider the effective restoration of the axial symmetry from lattice QCD results on  $a_0$  and pi meson screening masses. Finally, we investigate the order of the two-flavor chiral phase transition in the chiral limit.

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