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Continuum extrapolation of the critical endpoint in 4-flavor QCD with Wilson-Clover fermions

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We report our updated study on the critical endpoint of the finite temperature phase transition in 4-flavor QCD with Wilson-Clover fermions. Using the kurtosis intersection method, we determined the critical endpoint on lattices with N_t = 4, 6 and 8. Our continuum extrapolated result shows that the critical pion mass is clearly larger compared to one in 3-flavor, which suggests that the critical pion mass in 4-flavor might remain finite even in the continuum limit in contrast to the staggered quark case.

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