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The chiral critical point from the strong coupling expansion

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The strong coupling expansion for staggered fermions allows for Monte Carlo simulations using a dual representation. It has a mild sign problem for low values of the inverse gauge coupling β , hence the phase diagram in the full μ_B - T plane can be evaluated. We have extended this framework to include $O(\beta^2)$ corrections, by mapping the degrees of freedom to a vertex model. We present results on the β -dependence of the chiral critical point from those simulations.

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