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Constraining the QCD critical point from lattice simulations

Wednesday, 16 May 2018 11:10 (20 minutes)

We examine the reliability of available methods to constrain the location of the critical endpoint from lattice simulations. For this, we use several lattice simulations. First, we reexamine the Fodor-Katz critical endpoint estimate using the same staggered lattice with modern methods. Second, we look at the compatibility of the reweighting result with estimates of the convergence radius of the Taylor expansion. Third, we look at fine staggered lattices, calculate higher order fluctuations there, and make estimates of the radius of convergence, now close to the continuum limit. The talk should make it clearer how much one can trust claims in the literature about the lattice excluding regions of the phase diagram for the critical endpoint location.

Content type

Theory

Collaboration

Wuppertal-Budapest Collaboration

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Presenter name already specified

Primary authors: PASZTOR, Attila (University of Wuppertal); KATZ, Sandor (Eotvos University); BORSANYI, Szabolcs (University of Wuppertal); FODOR, Zoltan (BUW); GÜNTHER, Jana (University of Regensburg); KAPAS, Kornel (Eötvös University)

Presenter: PASZTOR, Attila (University of Wuppertal)

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