



Contribution ID: 763

Type: **Parallel Talk**

QCD transition at zero and non-zero baryon densities

Wednesday 16 May 2018 11:30 (20 minutes)

We will present new state-of-the-art lattice QCD results on the chiral crossover temperature of QCD for moderately large baryon chemical potential. Firstly, we will present a more precise updated result for the QCD pseudo-critical temperature at zero baryon chemical potential, obtained from all possible second-order chiral susceptibilities that diverge in the chiral limit. Then we will present new results on the QCD pseudo-critical temperature at non-zero baryon chemical potential, computed using Taylor-expansions of chiral condensate and chiral susceptibilities up to 4th-order in the chemical potential. Finally, we will present various second-order fluctuations along the QCD crossover line to look for possible signs of increased fluctuations with increasing baryon density.

Content type

Theory

Collaboration

HotQCD

Centralised submission by Collaboration

Presenter name already specified

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Session Classification: Phase diagram and search for the critical point

Track Classification: Phase diagram and search for the critical point