Contribution ID: **259** Type: **Talk**

Exploring the phase diagram of QCD with complex Langevin simulations

Tuesday, 24 June 2014 17:10 (20 minutes)

Simulations with a finite chemical potential typically lead to a severe sign problem, prohibiting any standard Monte Carlo approach. For simulations of QCD we use the complex Langevin method, for which we apply adaptive step-sizes and gauge cooling to ensure the convergence. We present preliminary results for heavy quark QCD and explore the application for two dynamical quarks.

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Session Classification: Nonzero temperature and Density

Track Classification: Nonzero Temperature and Density