Contribution ID: **347** Type: **Talk**

Thermodynamics of strongly-coupled lattice QCD in the chiral limit

Friday, July 29, 2016 5:10 PM (20 minutes)

In the strong coupling limit, n-point functions in lattice QCD with staggered fermions can be rewritten exactly as traces over constrained configurations of monomers, dimers, and baryon loops covering the spacetime lattice. Worm algorithms provide efficient global sampling methods over such ensembles, and are particularly efficient in the chiral limit. We study the thermodynamics of strongly-coupled U(3) and SU(3) lattice QCD with one massless staggered fermion using such methods, and compare the results with the relativistic pion gas.

Primary author: VAIRINHOS, Helvio (ETH Zurich)

Co-authors: Prof. ROMATSCHKE, Paul (University of Colorado); Dr DE FORCRAND, Philippe (ETH Zurich & CERN); Mr UNGER, Wolfgang (Bielefeld University)

Presenter: VAIRINHOS, Helvio (ETH Zurich)

Session Classification: Nonzero Temperature and Density

Track Classification: Nonzero Temperature and Density