



Contribution ID: 31

Type: **Talk**

Two-Color Lattice QCD with Non-zero Chiral Chemical Potential

Friday, 17 July 2015 14:00 (20 minutes)

The phase diagram of two-color QCD with non-zero chiral chemical potential is studied by means of lattice simulation. We focus on the influence of a chiral chemical potential on the confinement/deconfinement phase transition and the breaking/restoration of chiral symmetry. The simulation is carried out with dynamical staggered fermions without rooting. The dependences of the Polyakov loop, the chiral condensate and the corresponding susceptibilities on the chiral chemical potential and the temperature are presented. The critical temperature is observed to increase with increasing chiral chemical potential.

Primary authors: Mr MOLOCHKOV, Alexander (Far Eastern Federal University); Mr KOTOV, Andrey (ITEP); Mr PETERSSON, Bengt (Humboldt-Universität zu Berlin, Institut für Physik); Mr ILGENFRITZ, Ernst-Michael (Joint Institute for Nuclear Research, BLTP); Mr MÜLLER-PREUSSKER, Michael (Humboldt-Universität zu Berlin, Institut für Physik); Mr BRAGUTA, Victor (ITEP); Mr GOY, Vladimir (Far Eastern Federal University)

Presenter: Mr KOTOV, Andrey (ITEP)

Session Classification: Nonzero Temperature and Density

Track Classification: Nonzero Temperature and Density