Contribution ID: **178** Type: **Talk**

The effective Polyakov loop theory for finite temperature Yang-Mills theory and QCD

Monday, 23 June 2014 14:55 (20 minutes)

The effective Polyakov loop theory reproduces the main features of the
Yang-Mills theory and QCD at finite temperature. A systematic derivation of the effective theory is a combined strong coupling and hopping parameter expansion. It includes a systematic ordering principle of the effective couplings. I will review this approach as well as results and possible applications.
Furthermore, I will discuss how non-perturbative corrections to the
couplings can be derived from simulations of the full theory.

Primary author: Dr BERGNER, Georg (ITP Goethe University Frankfurt)

Presenter: Dr BERGNER, Georg (ITP Goethe University Frankfurt)

Session Classification: Nonzero temperature and Density

Track Classification: Nonzero Temperature and Density