

## Deconfinement and chiral transition in QCD at finite temperature

*Tuesday, May 24, 2011 3:20PM (20 minutes)*

I will discuss new lattice results on the deconfinement and chiral aspects of the transition in QCD at nonzero temperature. I will report on calculations performed using the Highly Improved Staggered Quark (HISQ) action on  $N_t=6, 8$  and  $12$  lattices. I will show the continuum extrapolation for several quantities that are discussed in connection with the transition at nonzero temperature as well as the determination of the chiral transition temperature in the continuum limit. I will also show new calculations with the asqtad action on  $N_t=12$  lattices which, when combined with the previous  $N_t=8$  HotQCD calculations, give a consistent result for the transition temperature in the continuum limit. Finally I will discuss new findings for the equation of state for HISQ and asqtad actions.

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**Session Classification:** QCD Phase diagram

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