

Abstract Submitted  
for the DNP10 Meeting of  
The American Physical Society

**QCD thermodynamics with HISQ action** PETER PETRECKZY,  
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RATION — We present recent results on chiral and deconfinement aspects of the  
QCD transition using lattice calculations with the Highly Improved Staggered Quark  
(HISQ) action. We will discuss the role of taste symmetry violation, inherent in the  
staggered formulation, in several observables including the trace anomaly, fluctua-  
tion of conserved charges, chiral condensate and its susceptibility. We will compare  
the lattice results with the prediction of the Hadron Resonance Gas model and give  
an estimate of the chiral transition temperature.

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Date submitted: 01 Jul 2010

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