Tuesday

Mar. 28th

At 3:30pm

Super Computing the Matter at Extremes: From Hadrons to Quarks

Abstract:

At extremely high temperatures the matter is expected to undergo a transition to a new state, where the dominant degrees of freedom are quarks and gluons instead of hadrons. I will discuss the study of the properties of this matter based on large scale numerical calculations within lattice regularized Quantum Chromodynamics. In particular, I will discuss equation of state, Debye screening and fluctuations of conserved charges. I will show how the fluctuations of conserved charges can be used to understand the transition from hadrons to quarks.

TEXAS A&M UNIVERSITY

CYCLOTRON COLLOQUIUM

Dr. Peter Petreczky

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Refreshments will be served at 3:15pm