

Abstract for an Invited Paper
for the HAW09 Meeting of
The American Physical Society

Collective Dynamics in High-Energy Nuclear Collisions at RHIC

NU XU, Nuclear Science Division, Lawrence Berkeley National Laboratory

In this talk I will discuss recent results from RHIC and the implications for the formation of matter with partonic degrees of freedom. The focus will be on the collective properties. I will also discuss the future for the RHIC program specifically stressing the importance of both heavy flavor measurements and the search for the QCD critical point. Finally, I will emphasize that the combined efforts at LHC, RHIC and the future facilities FAIR and NICA, will allow us to study the structure of QCD matter at different states of excitation.