

Abstract for an Invited Paper  
for the DNP08 Meeting of  
The American Physical Society

**What we may learn from a beam energy scan at RHIC**

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Recent measurements at RHIC reveal correlations unique to Heavy- ion collisions that exhibit an abrupt transition with energy. In this talk I discuss scenarios that may account for these correlation structures. I discuss what can be learned from the beam energy dependence of these structures and argue that performing a beam energy scan at RHIC will provide an unprecedented opportunity for discovery.