

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

**Full jet-reconstruction in heavy-ion collisions at RHIC**

JOERN PUTSCHKE, Yale University

Measurements of inclusive hadron suppression and di-hadron azimuthal correlations in ultra-relativistic nuclear collisions have provided important insights into jet quenching in hot QCD matter, but are limited in their sensitivity due to well-known biases. Complete jet reconstruction in heavy-ion collisions would provide a direct measurement of the energy of the scattered parton before energy loss, alleviating such biases and allowing a measurement of the energy loss probability distribution necessary to extract properties of the medium in a model-independent way from hard probes. In this talk measurements of the inclusive jet spectrum and the fragmentation function of fully reconstructed jets in 200 GeV heavy ion collisions will be presented. The fragmentation function as well as the jet spectra in heavy ion collisions will be presented and discussed with respect to p+p reference measurements.