Abstract Submitted for the DNP07 Meeting of The American Physical Society

Two-component approach to J/ψ p_t -Spectra at SPS and RHIC¹ XINGBO ZHAO, RALF RAPP, Texas A&M University — We investigate J/ψ transverse-momentum distributions as well as their centrality dependence in Pb-Pb collisions at SPS and Au-Au collisions at RHIC within the framework of a two-component model, which includes (i) a primordial contribution coupled with various phases of dissociation, (ii) a statistical coalescence of c and \bar{c} quarks at the hadronization phase transition. We use a transport equation combined with expanding fireball equations to study the component (i) and use a blast-wave approach to study the component (ii). The influence of various physical mechanisms on the J/ψ p_t distributions are investigated, together with applications to experimental data.

¹supported by NSF

Xingbo Zhao Texas A&M University

Date submitted: 29 Jun 2007 Electronic form version 1.4