Department of Theoretical Physics

Free Meson Seminar

Speaker	:	Binoy Patra (IIT, Roorkee)
Topic	:	Charmonium suppression in an expanding strongly coupled QGP
Day, Date & Time	:	Thursday, October 21, 2010 at 2:30 p.m.
Place	:	AG 69

Abstract

I will review the survival of charmonium states in a strongly-coupled Quark-Gluon Plasma (QGP) in the presence of dissipative forces. First of all I will discuss first-order dissipative corrections to the plasma equation of motion in the Bjorken boost-invariant expansion with a strongly-coupled equation of state for QGP. Secondly I will talk about the survival of these states with the dissociation temperatures obtained by correcting the full Cornell potential not its Coulomb part alone with a dielectric function encoding the effects of deconfined medium. The sensitivity of prompt, as well as sequential suppression, of these states to the shear viscosity-to-entropy density ratio from the perturbative QCD and as well as AdS/CFT predictions will also be discussed. Finally I will analyze our results and conclude with the future scope in this area.

(Nilmani Mathur)