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Heavy Flavor Energy Loss and Correlations from AdS/CFT

Tuesday, 29 September 2015 16:30 (2 hours)

We show that our strong-coupling heavy flavor energy loss model based on a rigorous treatment of drag and diffusion from AdS/CFT describes all current non-photonic electron, D meson, and non-prompt J/psi suppression measurements at RHIC and LHC. Taken with the recent success of our strong-coupling light flavor jet energy loss model, we claim that AdS/CFT provides a self-consistent theoretical description of the QGP at all experimentally accessible energy scales.

We allow for further testing of the strong-coupling description of QGP by presenting for the first time falsifiably different predictions for heavy flavor correlations from AdS/CFT and from pQCD. Finally we gain additional insight into the AdS/CFT description of heavy quarks by examining the energy loss of strings with finite endpoint momentum.

On behalf of collaboration:

NONE

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