Type: Oral presentation

LHC phenomenology of light quark jet quenching in AdS/CFT

Monday, 28 May 2012 15:20 (20 minutes)

In this talk, we explore phenomenological signatures of light quark jet quenching, modeled as falling strings within the AdS/CFT correspondence. In particular, we show that even in the simplest models, it is possible to obtain the correct qualitative behavior of the pion RAA at LHC, and we also present the quantitative predictions. We address the effect of the QCD conformal anomaly on this observable by exploring the behavior of falling strings in a non-conformal gravity dual, whose action is constrained by the lattice QCD data. In addition to this, we will also present results for falling strings in a geometry dual to a system experiencing a Bjorken expansion and investigate the effects of the expansion on the light quark jet quenching observables.

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