Heavy quark energy loss in a dynamical QCD medium MAG-DALENA DJORDJEVIC, ULRICH HEINZ, The Ohio State University — The computation of radiative energy loss in a dynamically screened QCD medium is a key ingredient for obtaining reliable predictions for jet quenching in ultra-relativistic heavy ion collisions. We calculate, to first order in the opacity, the energy loss suffered by a heavy quark traveling through an infinite and time-independent QCD medium and show that the result for a dynamical medium is almost twice that obtained previously for a medium consisting of randomly distributed static scattering centers. A quantitative description of jet suppression in RHIC and LHC experiments thus must correctly account for the dynamics of the medium's constituents [1].
[1] M. Djordjevic and U. Heinz, arXiv:0705.3439 [nucl-th]

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