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Dynamic Holographic QCD

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I present a simple AdS/QCD model in which the formation of the chiral condensate is dynamically determined. The gauge dynamics is input through the running of the quark bilinear's anomalous dimension, gamma. The condensate provides a dynamically generated infra-red wall in the computation of mesonic bound state masses and decay constants. As an example, I use the model, with perturbative computations of the running of gamma, to study SU(3) gauge theory with a continuous number of quark flavours, Nf. We follow the behaviour of the spectrum as we approach the conformal window through a walking gauge theory regime. The phase diagram of the theory is also computable in this model.

Primary author: EVANS, Nick (U)

Presenter: EVANS, Nick (U)