Abstract Submitted
for the 4CF15 Meeting of
The American Physical Society

A Pure SU(3) AdS/CFT Model[1] ADITYA DHUMUNTARAO, Arizona State University, JOSEPH KAPUSTA, University of Minnesota — The Anti-de Sitter Space/Conformal Field Theory (AdS/CFT) correspondence proffers novel insights into the non-perturbative regime of strongly coupled gauge theories such as Quantum Chromodynamics (QCD). We present a 5-dimensional effective gravity dual to the 4-dimensional non-Abelian gauge theory of QCD. In addition, we constrain the model to a pure SU(3) gauge theory by suppressing chiral and axial fields, while maintaining a Glueball field. The conformal symmetry is broken by a background Dilaton field. The Glueball and Dilaton background fields are derived from a potential, which is constructed from the gravity/gauge duality. The potential is described in detail and undergoes numerical treatment to model the Glueball spectra.

[1]NSF-DMS-1460141

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Date submitted: 15 Aug 2015 Electronic form version 1.4