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Title: Using AdS/CFT to Calculate QCD Properties

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Abstract: Our aim in this project is to build a model on the AdS × S 5 spacetime which shows charac- teristics of chiral symmetry breaking in N f = 2 QCD and its predictions matches. We start with the basics of the AdS/CFT correspondence and study a five-dimensional model which simulates the low-energy properties of QCD. We also discuss large-N theories and chiral symmetry breaking in N f = 2 QCD along the way. The model has three parameters which are fixed by

masses, decay constants and couplings of vector and axial mesons. Later, we propose a D3 - D7 brane system emulating similar results.

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