

QCD with an infrared fixed point and a dilaton

In a first part I will deduce scaling dimensions by matching the chirally broken gauge theory to the pion effective theory.

Consistency with soft theorems, the lattice and $N=1$ supersymmetric gauge theories will be discussed.

In a second part, I will consider how the interpretation extends to include a dilaton, the Goldstone due to spontaneous scale symmetry breaking. Gravitational form factors offer a way to assess the sigma-meson as a dilaton and infrared conformality. I will confront these signatures with recent lattice data.

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Session Classification: Talks