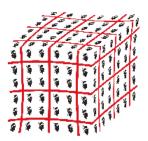
Lattice2010



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Orientifold Planar Equivalence: The Quenched Meson Spectrum

Friday, 18 June 2010 17:20 (20 minutes)

Orientifold Planar Equivalence is a powerful analytical tool that allows us to relate certain observables (among which, meson masses) in SU(N) gauge theory with one (anti-)symmetric Dirac flavour and calN = 1 SU(N) SUSY in the limit in which the number of colours N goes to infinity. This enables us in principle to transcribe SUSY results to QCD, provided that the latter is close (in the sense of an appropriate 1/N expansion) to its large-N limit. We present a lattice study of the meson and rho mass in the quenched theory for N ranging from 3 to 8, fermions in two-index irreducible representations and fixed lattice spacing.

A comparison of the spectra among the various theories allows us to estimate the size of the expected corrections at finite N. Consequences of our findings for the application of Orientifold Planar Equivalence to study real-world QCD are discussed.

Please, insert your presentation type (talk, poster)

talk

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