

Supersymmetric Partition Sums of 2d (4,4) GLSMs

Monday 18 August 2014 14:00 (1 hour)

In the first part of this talk, we discuss the equivariant elliptic genera of ALE and ALF manifolds. The elliptic genera exhibit interesting pole structure as a function of the chemical potentials. We use this to decompose the answers into polar terms that exhibit wall-crossing and universal terms. We also discuss applications of our results to counting of BPS world-sheet spectrum of self-dual strings in the 6d $N=(2,0)$ theories.

In the second part of the talk, we consider two-dimensional $N = (4, 4)$ supersymmetric gauge theories which do not have classical Higgs branches. These theories however are believed to have isolated quantum Higgs vacua with a mass gap. We provide a field theoretic argument for the existence of such vacua.

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