"S^2 partition functions: Coulomb vs Higgs localization and vortices"
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Abstract

In two-dimensional N=(2,2) R-symmetric theories of vector and chiral multiplets on the two-sphere, the partition function as well as expectation values of supersymmetric operators can be computed with localization techniques. Depending on the choice of localizing term, the partion function can be expressed either as integral over the Coulomb branch, or as a sum over a discrete Higgs branch of a vortex times an antivortex partition functions. As an application, I will show equality of the path integrals for "Seiberg-dual" theories in two dimensions.