

Non-perturbative Tests of Duality Cascades in Three Dimensional Supersymmetric Gauge Theories

Wednesday, 16 December 2020 17:20 (20 minutes)

It has been conjectured that duality cascade occurs in the $N = 3$ supersymmetric Yang-Mills Chern-Simons theory with the gauge group $U(N) \times U(N + M)$ coupled to two bi-fundamental hypermultiplets. The brane picture suggests that this duality cascade can be generalized to a class of 3d $N = 3$ supersymmetric quiver gauge theories coming from so-called Hanany-Witten type brane configurations. In this paper we perform non-perturbative tests of the duality cascades using supersymmetry localization. We focus on S^3 partition functions and prove predictions from the duality cascades.

Presenter: Mr KUBO, Naotaka (YITP)

Session Classification: Short talks