Hanany-Witten Transition in Quantum Curves

Naotaka Kubo [#]
(Affiliation: Yukawa Institute for Theoretical Physics, Kyoto University)

[#] naotaka.kubo@yukawa.kyoto-u.ac.jp

Abstract: It was known that the U(N)^4 super Chern-Simons matrix model describing the worldvolume theory of D3-branes with two NS5-branes and two (1,k)5-branes in IIB brane configuration (dual to M2-branes after taking the T-duality and the M-theory lift) corresponds to the quantum curve which has D5 symmetry[1][2]. We study the correspondence in detail and, by matching the two sides, we find a relation between the D_5 symmetry and the symmetries of branes such as Hanany-Witten transition. This provides a new viewpoint for brane symmetries[3].

References

[1] M. Marino and P. Putrov, J. Stat. Mech. 1203, P03001 (2012).
[2] N. Kubo, S. Moriyama and T. Nosaka, JHEP 1901, 210 (2019).
[3] N. Kubo and S. Moriyama, [arXiv:1907.04971 [hep-th]].