



ID de Contribution: 53

Type: Non spécifié

# Large N Partition Functions, Holography, and Black Holes

*mardi 4 juillet 2023 14:00 (1 heure)*

I will discuss the large  $N$  behavior of partition functions of the ABJM theory on compact Euclidean manifolds. I will pay particular attention to the  $S^3$  free energy and the topologically twisted index for which I will present closed form expressions valid to all orders in the large  $N$  expansion. These results have important implications for holography and the microscopic entropy counting of AdS<sub>4</sub> black holes which I will discuss. I will also briefly discuss generalizations of these results to the superconformal index, as well as to other 3d SCFTs arising from M2-branes.

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**Classification de Session:** Formal theory