

# Localization and quantum AdS<sub>4</sub>/CFT<sub>3</sub> holography

*Thursday, 21 August 2014 15:30 (1 hour)*

I will review the calculation of the partition function of 3d supersymmetric field theories on  $S^3$  using the fermi-gas approach to solve the matrix integral. The resulting expression is an Airy function and is valid perturbatively to all orders in  $1/N$  for a wide class of theories (including ABJM). This suggests that a similar formula can be derived by studying quantum gravity on AdS<sub>4</sub>. I will explain several of the steps needed to implement this idea and some intriguing results.

## Summary

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