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# Localization and quantum AdS_4/CFT_3 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_4. I will explain several of the steps needed to implement this idea and some intriguing results.

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