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A complexity/fidelity susceptibility g-theorem for AdS3/BCFT2

Thursday 28 September 2017 16:05 (20 minutes)

I use a recently proposed holographic Kondo model as a well-understood example of AdS/boundary CFT (BCFT) duality and show explicitly that in this model the bulk volume decreases along the RG flow. I then obtain a proof that this volume loss is indeed a generic feature of AdS/BCFT models of the type proposed by Takayanagi in 2011. According to recent proposals holographically relating bulk volume to such quantities as complexity or fidelity susceptibility in the dual field theory, this suggests the existence of a complexity or fidelity susceptibility analogue of the Affleck-Ludwig g-theorem, which famously states the decrease of boundary entropy along the RG flow of a BCFT.

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