

Peer Review

Review of: "Scrambling in Charged Hairy Black Holes and the Kasner Interior"

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While the work focuses on the dynamics of Kasner-like spacetimes considering a scalar interaction with a charged black hole, the general motivation was a bit hard to grasp. Few questions that occur to me are:

1. What is the effect of this chaotic feature in the dual field theory?
2. What are the implications of the Kasner metric in the dual theory? The authors point out that the deformation in the dual theory is a relevant one. So one can expect the theory to flow to a non-trivial fixed point. What is this fixed point?
3. In the case of the black hole background, the dual theory is a thermal field theory. Is there any phase transition we can expect in the field theory side? Can we show this from the CFT correlation functions?
4. How is the correspondence between the holographic dual and the TFD playing out?

These are some of the questions that appear to me. However, I appreciate that the authors have done the computations meticulously and in detail to examine the chaotic evolution and connected it with measures such as the Lyapunov exponent. In light of the accuracy, I would recommend publication in the journal owing to the above clarifications for the sake of completion.

Best regards,

Declarations

Potential competing interests: No potential competing interests to declare.