Holographic Lifshitz Flows and the Null Energy Condition

Presented by:

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Abstract

The null energy condition has found widespread application in the gravitational side of AdS/CFT, especially in the context of the holographic c-theorem and its generalizations. In this talk, I will discuss the consequence of the null energy condition for non-relativistic AdS/CFT, and in particular for the case of holographic Lifshitz flows. Lifshitz fixed points are characterized by two parameters: $L$, the analog of the AdS radius, and $z$, the critical exponent. Contrary to expectations from the relativistic c-theorem, flows in $L$ and $z$ do not have to be monotonic, although the null energy condition will place restrictions on their simultaneous behavior.