Einstein-Yang-Mills black brane in ads space and dc color conductivity

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Abstract
Considering the SU(2) Yang-Mills theory in a 4-dimensional Einstein Gravity, we find a black brane solution in the AdS space. For this setup, by using the AdS/CFT holography, we find non-Abelian color conductivity of the gauge theory on the boundary of the AdS space. Color conductivity is defined by the generalized Ohm’s law and computed by applying holography to the linear response theory.

Keywords: color conductivity, holography, linear response theory, black brane

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