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Black Holes in String Theory

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Black holes are central to the study of string theory. First, we must understand how string theory solves the information puzzle found by Hawking; this direction explores the fundamental structure of spacetime. Second, one finds an intriguing extension of the idea that surface area measures entropy – the Ryu-Takayanagi relation between surface area and entanglement entropy. Lastly, the AdS/CFT duality map relates the gravitational dynamics of black holes to the thermodynamical behavior of condensed matter systems. I will briefly summarize some of the progress in these directions over the past few years.

Oral or Poster Presentation

Oral

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