

Massachusetts Institute of Technology
Department of Physics

Condensed Matter Theory Seminar

“Complexity Equals Action”

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Abstract: In this blackboard talk I will review the motivations for associating the circuit complexity of the quantum state of a holographic field theory with the growing geometry inside a black hole. Then I will introduce our recent conjecture in which we associate complexity with the bulk gravitational action of a certain region of the black hole spacetime. I'll also discuss the connections to tensor networks and the possibility that black holes are the fastest complexifiers in nature. Based on work with Adam Brown, Dan Roberts, Leonard Susskind, and Ying Zhao.

12:00pm noon
Tuesday, October 27, 2015
Duboc Seminar Room (4-331)