

Institut Henri Poincaré
11 rue Pierre et Marie Curie, 75231 Paris cedex 05
String Theory in Greater Paris

Rencontres Théoriciennes
“Supergravité, théorie des cordes et théorie M”

Jeudi 18 Fevrier 2016, 10:00

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Harvey Mudd College

Entanglement, geometry, and black holes in Matrix theory

In the context of the Banks-Fischler-Shenker-Susskind Matrix model of M-theory, black holes and geometry are encoded in matrix degrees of freedom. I elaborate on this map by demonstrating that the relevant dynamics is realized through a system of qubits with a dense network of interactions. Using methods from quantum information theory, I compute the information scrambling time in Matrix black holes ; and I present evidence that geometry is encoded in qubit entanglement entropy.

Institut Henri Poincaré, salle 314, 3^{ème} étage

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