

Theory Seminar

Monday, February 1, 2010 2:10 PM 831 Pupin Hall

The Emergence of Spacetime

The idea that geometry, topology and even spacetime are "emergent" properties of some more fundamental theory of quantum gravity is making more and more of an impact into contemporary scientific thinking. In this talk I give an introductory account of the AdS/CFT correspondence in the 1/2 BPS sector of N=4 super Yang-Mills theory. I also review some recent advances in our understanding of how six of the dimensions of the string theory are encoded in the Yang-Mills theory, and suggest how local geometry and topology emerge.

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