



PHYSICS AND ASTRONOMY SEMINAR

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“A Theory of Everything at Strong Coupling”

Abstract

Over the past years an exciting new research area has emerged in Physics. It brings together physicists studying string theory, nuclear theory, heavy ion collisions, condensed matter systems, and many more. What unifies all of these subjects is the question: how do systems behave at strong coupling? The connection between these different subjects is provided by a particular holographic correspondence in combination with effective field theories. In this talk I will give a brief introduction to the fascinating concepts of this thriving research area. Then we will work out the example of a new transport effect, the chiral vortical effect in heavy ion collisions, discussing relativistic hydrodynamics as well as far-from-equilibrium settings.

Monday, March 11, 2013

3:30 p.m.

Elliott Building

Room 162