

Stanford University Mathematical Organization(SUMO) Speaker Series

Wednesday, November 19

6:00-7:20 P.M., 380-384I

Stability of Minkowski Spacetime

Professor Jonathan Luk

1 Abstract

General relativity is a theory of gravity described by the celebrated Einstein equations, which relate the geometry and matter content of spacetime. The Minkowski spacetime, the spacetime of special relativity, is a special solution to these equations. It depicts a vacuum spacetime with no curvature. A monumental result in mathematical physics, discovered in 1993 by Christodoulou and Klainerman, is the proof that Minkowski spacetime is dynamically stable in the framework of the evolution problem in general relativity. I will describe the theorem and some of the fascinating ideas behind it.

The talk will be followed by QA with the professor. There will be snacks.