

Geometry Seminar

Hari Kunduri, Memorial University

Wednesday, March 6, 2013

HH-3013

4:00-4:50 pm

Geometric inequalities in Riemannian manifolds

Abstract:

Two important results in geometric analysis and mathematical relativity are the positive mass theorem and the Riemannian Penrose inequality. These place a lower bound on a certain geometric invariant of an asymptotically flat Riemannian manifold. The motivation for this work arose from the study of black hole solutions in general relativity and was subsequently rigorously proved over the last three decades. In this expository lecture, the basic ideas behind the proof of these results will be outlined.