Graduate Seminar in Mathematics

Dr. Hari Kunduri Memorial University

Thursday, March 26, 2015 1 - 2 pm in HH-3017

Introduction to Riemannian Geometry

Abstract:

Riemannian geometry is an important topic in differential geometry concerned with the curvature of differentiable manifolds equipped with a metric. I will review some of the basic geometric objects in Riemannian geometry (vector fields, metric tensors, geodesics) and the curvature tensor. For simplicity I will focus on lower-dimensional manifolds and briefly discuss the Gauss-Bonnet theorem and Ricci flow in two dimensions.