Colloquium

August 31, 4:05 p.m. (9th Period)
(in the Atrium)

Speaker: Andres Zuniga

Title: Convexity in Riemannian Geometry

Abstract: Convex subsets of Euclidean space have a rich structure that allows a variety of optimization problems defined on such spaces to be tractable. Geodesics have been extensively studied in various branches of differential geometry and physics. In this talk, we introduce various notions of geodesic convexity, a generalization of convexity defined on subsets of a connected Riemannian manifold M. Time permitting, we will also discuss the Hopf-Rinow theorem, a collection of equivalences characterizing geodesically complete subsets of M.