Title:

From metric geometry to quantitative topology and group theory

Abstract:

A universal inequality on a closed Riemannian manifold is an inequality involving metric invariants such as the volume, the diameter, or the shortest length of a closed geodesic for example, and holding without any restriction on the curvature of the metric. In this talk, we will explain how universal inequalities in metric geometry can be used to define topological invariants for manifolds and groups.