
Speaker: Fernando Galaz-García
Karlsruher Institut für Technologie (KIT)

Tuesday, November 7, 2017

11:00 AM

258 Hurley Hall

Title: Sufficiently collapsed irreducible Alexandrov spaces are geometric

Abstract:

In Riemannian geometry, collapse imposes strong geometric and topological restrictions on the spaces on which it occurs. In the case of Alexandrov spaces, which generalize Riemannian manifolds with a lower sectional curvature bound, collapse is fairly well understood in dimension three. In this talk I will discuss the topology of sufficiently collapsed Alexandrov 3-spaces: when the space is irreducible, it is modeled on one of the eight three-dimensional dimensional Thurston geometries, excluding the hyperbolic one. This extends a result of Shioya and Yamaguchi, originally formulated for Riemannian manifolds, to the Alexandrov setting. (Joint with Luis Guijarro and Jesús Núñez-Zimbrón).