



Mathematics Colloquium

Knots, graphs, geometry and densities

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Abstract

Knot theory has a fascinating history of using techniques from diverse fields of mathematics. In this talk we will explore the interactions between knot theory, graph theory and hyperbolic geometry. After giving some background in knots and geometry, we will focus on two natural knot invariants, a geometric quantity called the volume density, and a diagrammatic quantity called the determinant density. We will talk about recently discovered interesting relationships between the spectra of volume and determinant densities, and explore natural questions and conjectures motivated by this study.

Wednesday, 9 November 2016, 4pm

Smith Hall 204

Tea and refreshments will be served at 3:45pm.