Fall 2024

Geometry and Topology Seminar

Title

Thurston norm and the geometry of surfaces

Speaker:	Xiaolong Hans Han, Shanghai Institute for Mathematics and Interdisciplinary Sciences
Date:	November 07, 2024
Time:	10:30AM
Tencent Meeting:	474-525-672, Password: 202411

Abstract: For closed hyperbolic 3-manifolds M, Brock and Dunfield prove an inequality on the first cohomology bounding the ratio of the geometric L2-norm to the topological Thurston norm. Motivated by Dehn fillings, they conjecture that as the injectivity radius tends to 0, the ratio is big O of the square root of the log of the injectivity radius. We prove this conjecture for all sequences of manifolds which geometrically converge. Tools involve circle-valued maps and minimal surfaces.