Fall 2024

Geometry and Topology Seminar

Title

Systolic inequality on Riemannian manifold with bounded Ricci curvature

Speaker:	Zhifei Zhu, Yau Mathematical Sciences Center, Tsinghua University
Date:	November 22, 2024
Time:	10:30AM
Tencent Meeting:	890-686-6792, Password: 202411

Abstract: In this talk, we show that the length of a shortest closed geodesic on a Riemannian manifold of dimension 4 with diameter D, volume v, and $|Ric| < 3$ can be bounded by a function of v and D. In particular, this function can be explicitly computed if the manifold is Einstein. The proof of this result depends on a structural theorem proven by J. Cheeger and A. Naber. This is joint work with N. Wu.