



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

SCALAR CURVATURE LOWER BOUNDS FOR ANCIENT RICCI
FLOWS

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ABSTRACT:

In a series of papers, Bamler further developed the high-dimensional theory of Hamilton's Ricci flow to include new monotonicity formulas, a completely general compactness theorem, and a long-sought partial regularity theory analogous to Cheeger-Colding theory. Recently in a joint work with Chan, Chow, and Zhang, we give an application of his theory to lower bounds for the scalar curvatures of singularity models for Ricci flow. In the case of 4-dimensional non-Ricci-flat steady soliton singularity models, we obtain as a consequence a quadratic decay lower bound for the scalar curvature.

4 – 5pm, Wednesday, September 14, 2022

204 Smith Hall