



GEOMETRY, TOPOLOGY, AND PHYSICS SEMINAR

Three-manifolds, Ricci flow, and physics

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Friday, September 29, 2006, 3:30 p.m.
Room 6635 South Hall

Abstract: The topic of this quarter's seminar is Ricci flow on three-manifolds, with the goal of understanding

1. the basics of Thurston's geometrization program,
2. Hamilton's strategy for completing that program using Ricci flow,
3. Perelman's technical and conceptual advances in Ricci flow which allow the program to be completed, and
4. relations to physics including the analogy with the renormalization flow in two-dimensional quantum field theory.

This first talk will be a general introduction to three-manifolds, Ricci flow, and physics. We will begin with two-manifolds (i.e., surfaces), described from the point of view of the Thurston-Hamilton-Perelman program, and then move on to three-manifolds.

Information about future meetings of this seminar can be found at
<http://www.math.ucsb.edu/~drm/GTPseminar/>