

Stanford Department of Mathematics Colloquium

RICCI FLOW IN HIGHER DIMENSION AND THE SPHERE THEOREM

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Abstract

We describe recent joint work with Richard Schoen on the Ricci flow in higher dimensions. We discuss various new curvature conditions, which are based on the notion of positive isotropic curvature (PIC) and are preserved by the Ricci flow. Using these ideas, we obtain a new convergence result for a class of manifolds that includes all manifolds with $1/4$ -pinched sectional curvatures. As a corollary, we give an affirmative answer to a question posed by H. Rauch in 1951.

Thursday, November 1

4:15 p.m.

Room 380-F

<http://math.stanford.edu/coll/0708/>