DIFFERENTIAL GEOMETRY/PDE SEMINAR

Friday, August 24, 2012
Padelford C-401
10AM–11AM

Geometry of gradient Ricci solitons

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A complete Riemannian manifold \((M^n, g)\) is called a Ricci soliton if its Ricci tensor satisfies the equation \(Rc + \text{Hess} f = \rho g\), for some constant \(\rho\) and smooth function \(f\) on \(M\). Here \(\text{Hess} f\) denotes the Hessian of \(f\).

Ricci solitons are natural extensions of Einstein manifolds. They are self-similar solutions to Hamilton’s Ricci flow and often arise as singularity models in the Ricci flow. In this talk, I will discuss geometry of gradient Ricci solitons and survey some recent progress on their classifications.

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