

1106-53-2132

Chenxu He* (che@math.ou.edu). *Geometry of gradient Ricci solitons.*

Ricci solitons are self-similar solutions to Hamilton's Ricci flow and they play a particular role in the singularity analysis of Ricci flow. They are also natural generalization of Einstein manifolds. We present a few results in the study of geometry of gradient Ricci solitons, including the stability problem for the shrinking Ricci solitons with respect to Perelman's shrinker entropy and show the classification on symmetric spaces of compact type, and the deformation of steady gradient Ricci solitons and show that the infinitesimal deformation is trivial in low dimension. This is a joint work with Huai-Dong Cao. (Received September 15, 2014)