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Peng Wu* (wupenguin@math.ucsb.edu), Department of Mathematics, University of California, Santa Barbara, Santa Barbara, CA 93106. *On Potential Function of Gradient Steady Ricci Solitons.*

In this paper, we study the potential function of gradient steady Ricci solitons. We prove that the infimum of the potential function decays linearly. As a consequence, we show that a gradient steady Ricci soliton with bounded potential function must be trivial, and that no gradient steady Ricci soliton admits uniformly positive scalar curvature. (Received August 04, 2011)