

1023-35-1330

Brett L Kotschwar* (bkotschw@math.ucsd.edu), Department of Mathematics, University of California, San Diego, 9500 Gilman Drive, Dept. 0112, San Diego, CA. *On complete rotationally invariant gradient Ricci shrinking solitons.*

In this paper we study the gradient Ricci shrinking soliton equation on rotationally symmetric manifolds of dimension $n \geq 3$ and prove that the only complete examples of such metrics on S^n , \mathbb{R}^n and $\mathbb{R} \times S^{n-1}$ are, respectively, the round, flat, and standard cylindrical metrics. (Received September 25, 2006)