Erratum to: Ricci solitons and odd-dimensional spheres

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In Remark 3.2 in [3] Perelman showed that a Ricci soliton on a compact manifold is always *replaced* by a gradient Ricci soliton. Indeed, on a compact Riemannian manifold (M, g) a potential vector field V is the sum of a Killing field and a gradient (cf. [2]).

Hence, Theorem 6 in [1] should be changed to:

Theorem 6 *Let M be a complete real hypersurface in $\mathbb{C}^n$. If M admits a Ricci soliton whose potential vector field is the Reeb vector field, then M is a Hopf hypersurface and is congruent to a sphere S^{2n-1} , a hyperplane $\mathbb{R}^{2n-1}$ or a cylinder over a complete plane curve $\gamma \times \mathbb{R}^{2n-2}$.*

Since the sphere is only a compact case among such spaces in Theorem 6, we have the following Theorem C (or Corollary 7).

Theorem C *If a compact real hypersurface M in a complex number space $\mathbb{C}^n$ admits a Ricci soliton whose potential vector field is the Reeb vector field, then M is a sphere.*

References

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