

Ricci solitons of the Sol3 Lie group

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Abstract

In this work we consider the three-dimensional solvable Lie group denoted by Sol_3 , equipped with any left-invariant metric, either Lorentzian or Riemannian. The existence of non-trivial (i.e., not Einstein) Ricci solitons on both Lorentzian and Riemannian three-dimensional solvable Lie group Sol_3 is proved. Moreover, we show that they are not gradient Ricci solitons.

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