QUASI-EINSTEIN MANIFOLDS ENDOWED WITH A PARALLEL VECTOR FIELD

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Resumo/Abstract:

The purpose of this work is to investigate quasi-Einstein manifolds endowed with a nontrivial parallel vector field. Here, we obtain some characterizations for this class of manifolds under this condition. More precisely, we prove a rigidity result for quasi-Einstein manifolds endowed with a nontrivial gradient parallel vector field. Finally, we use conformal change Riemannian manifolds and warped-product to characterize quasi-Einstein manifolds endowed with a parallel vector field not necessarily gradient type.

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