عنوان مقاله:

Characteristics of T--conformal mappings

نویسندگان:

Mehran Aminian - Department of Mathematics, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran

Mehran Namjoo - Department of Mathematics, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran

خلاصه مقاله:

In this paper, we introduce the notion of T-conformal transformations and T-conformal maps between Riemannian manifolds. Here, T stands for a smooth $(1,1)$-tensor field defined on the domain of these maps. We start by defining what it means for a map to be T-conformal and also dwell on some basic properties of such type maps. We next specialize our discussion to the situation when the map T satisfies the condition $\nabla T = 0$. Accordingly, we prove Liouville's theorem for T-conformal maps between space forms Rn(c) as an application under the condition $\nabla T = 0$. The proof relies upon properties of T-conformal maps proved earlier. Broadly, the paper seeks to provide a general understanding of conformal mappings in the presence of a tensor field T and show how classical results such as Liouville's theorem apply.

کلمات کلیدی:

Conformal map, Isometry, $(1,1)$ --tensor field

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