BRIEF ARTICLE

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Abstract:

Locally homogeneous Riemannian spaces are characterized by the famous result of Ambrose and Singer as those spaces admitting a (1,2)-tensor S such that $\tilde{\nabla}S = 0$, $\tilde{\nabla}R = 0$ and $\tilde{\nabla}g = 0$, for $\tilde{\nabla} = \nabla LC + S$. The result was extended to pseudo-Riemannian manifolds as well as pseudo-Riemannian manifolds endowed with addition geometric structures defined by tensors (as Kähler, quaternion-Kähler, Sasaki just to mention some cases).

The goal of this talk (or poster) is the presentation of similar results in the case where the manifold is not necessarily pseudo-Riemannian. A main instance is the study of homogenous symplectic manifolds. We also analyze both the local and global approach.