

Yildiz, Ahmet; Murathan, Cengizhan**On Lorentzian α -Sasakian manifolds.** (English) Zbl 1085.53023

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Let M^{2n+1} be a Lorentzian α -Sasakian manifold. The authors prove that M is locally isometric to a sphere $S^{2n+1}(\alpha^2)$ provided one of the following conditions holds: (1) M is conformally flat; (2) M is quasi-conformally flat; (3) $R(X, Y) \cdot C = 0$, where R and C are the curvature tensor and conformal curvature tensor of M , respectively.

Reviewer: Jürgen Berndt (Cork)

MSC:**53C15** General geometric structures on manifolds (almost complex, almost product structures, etc.)**53C25** Special Riemannian manifolds (Einstein, Sasakian, etc.)Cited in **9** Documents**Keywords:**

conformally flat; quasi-conformally flat; Lorentzian manifolds; alpha-Sasakian manifolds