عنوان مقاله:

Canonical Foliation of an Indefinite Locally Conformal Kähler Manifolds

محل انتشار:

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

We investigate the semi-Riemannian geometry of the foliation F of an indefinite locally conformal Kähler (l. c. K.) manifold M, described by the Pfaffian equation $\omega = 0$, under the condition $\nabla \omega = 0$ and $c = k \omega k \neq 0$ (where ω represents the Lee form of M). If M is conformally flat, then each leaf of F is proven to be a completely geodesic semi-Riemannian hypersurface in M, and a semi-Riemannian space form of sectional curvature $c/4$, carrying an indefinite c-Sasakian structure. As a consequence of this result, along with a semi-Riemannian version of the de Rham decomposition theorem, any geodesically complete, conformally flat, indefinite Vaisman manifold of index $2s$, where $0 < s < n$, is locally biholomorphically homothetic to an indefinite complex Hopf manifold $CH_n^s (\lambda)$, where $0 < \lambda < 1$, equipped with the indefinite Boothby metric $g_{s, n}$.

کلمات کلیدی:

Canonical foliation, Lee form, Indefinite locally conformal Kähler manifold, Indefinite Hopf manifold

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