

LOCALLY CONFORMALLY HOMOGENEOUS PSEUDO-RIEMANNIAN SPACES

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Locally homogeneous Riemannian spaces were studied in many papers. Locally conformally homogeneous Riemannian spaces were considered in [1]. Moreover, the theorem claiming that every such space is either conformally flat or conformally equivalent to a locally homogeneous Riemannian space was proved.

In this article, we study locally conformally homogeneous pseudo-Riemannian spaces and prove a theorem on their structure. Using three-dimensional Lie groups and the six-dimensional Heisenberg group [2], we construct some examples showing the difference between the Riemannian and pseudo-Riemannian cases for such spaces.

Key words and phrases: conformal deformations, (pseudo-)Riemannian metric, homogeneous spaces.

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