

Equiaffine Connections on Three-Dimensional Pseudo-Riemannian Spaces

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Abstract. The question of description equiaffine connections on a smooth manifold is studied. In general, the purpose of the research is quite complicated. Therefore, it is natural to consider this problem in a narrower class of pseudo-Riemannian manifolds, for example, in the class of homogeneous pseudo-Riemannian manifolds. In this paper for all three-dimensional Riemannian and pseudo-Riemannian homogeneous spaces, it is determined under what conditions the connection is equiaffine (locally equiaffine). In addition, equiaffine (locally equiaffine) connections, torsion tensors and Ricci tensors are written out in explicit form.

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