

On Special Almost Geodesic Mappings of Type π_1 of Spaces with Affine Connection *

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(Received February 23, 2004)

Abstract

N. S. Sinyukov [5] introduced the concept of an *almost geodesic mapping* of a space A_n with an affine connection without torsion onto \bar{A}_n and found three types: π_1 , π_2 and π_3 . The authors of [1] proved completeness of that classification for $n > 5$.

By definition, special types of mappings π_1 are characterized by equations

$$P_{ij,k}^h + P_{ij}^\alpha P_{\alpha k}^h = a_{ij} \delta_k^h,$$

where $P_{ij}^h \equiv \bar{\Gamma}_{ij}^h - \Gamma_{ij}^h$ is the deformation tensor of affine connections of the spaces A_n and \bar{A}_n .

In this paper geometric objects which preserve these mappings are found and also closed classes of such spaces are described.

Key words: Almost geodesic mappings, affine connection space.

2000 Mathematics Subject Classification: 53B05, 53B99

*Supported by grant No. 201/02/0616 of The Grant Agency of the Czech Republic.