

# THE OBJECT OF CURVATURE OF THE DISTRIBUTED LINEAR CONNECTION

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In  $n$ -measured projective space  $P_n$  the distribution  $NS_n$   $m$ -measured of planes is investigated. With distribution  $NS_n$  the principal bundle of linear frames  $L(P_n)$  with a typical fiber by a linear quotient group  $L=CL(m)$  of group of a stationarity  $G$  of the centered plane is associated. In this bundle  $L(P_n)$  by a mode of Laptev the so-called distributed linear connection is set [1] with the object  $\{\Gamma_{jk}^i, \Gamma_{ja}^i\}$  ( $i, \dots=1, \dots, m$ ;  $a, \dots=m+1, \dots, n$ ), which components are set by the equations distinguished from the equations on components non-distributed (usual) of linear connection with the object  $\{\Gamma_{jK}^i\}$  ( $K, \dots=1, \dots, n$ ). The invariant conditions of coincidence of these objects are found. The differential comparisons for components of the object of curvature of the distributed linear connection are obtained from which implies following

**Theorem.** *The object of curvature of the distributed linear connection in the associated bundle of linear frames  $L(P_n)$  above non-holonomic  $NS_n$  and holonomic  $S_n$  distributions is not a tensor, and forms the geometrical object only with the fundamental object of second order and the object of the distributed linear connection.*

Let's mark, that the object of curvature of the distributed linear connection loses the antisymmetry restored with the help of a generalized alternation. By reviewing the fixed surface turn by planes of holonomic distribution, the object of curvature distributed connection is a tensor.

The object of curvature of the not distributed linear connection also is a tensor.

The list of the literature

1. Omelyan O. *The notions of distributed and non-distributed connections* // Dif. geom. of manifolds of figures. Kaliningrad, 2003. No. 34. P. 103 - 110.

2. Omelyan O. *About the object of curvature of group connection on the dis-tribution of planes* // Proc. math. center of N. Lobachevsky. Kazan, 2002. Vol. 18. P. 69.