

INVARIANT DETERMINATION OF Φ -OPERATORS

Abstract

In the present paper the invariant form of Φ - operators is applied to the covariant tensor field of $(0, p)$ type is determined, where $S \in T_q^1(M_n)$. The condition of the tensor defining the $\tilde{\Phi}^S$ -operator is found. It is obvious that the local form of this operator coincides with the local form of the first Yano Ako operator under some conditions. Further the invariant form of Φ^S -operator applied to the $(0, p)$ type covariant tensor field of the generalized first kind of Yano Ako operator is determined. It becomes evident that the condition needed for this operator to define the tensor of type $(0, p + q)$ coincides with the purity condition of covariance tensor.