1105-22-274 **Uladzimir Shtukar*** (ushtukar@nccu.edu), 1801 Fayetteville Street, MTSB, r. 3253, Durham, NC 27707. *Invariant Reductive Triplets in Lie Algebras.*

Let g be a Lie algebra, and h be a subalgebra Lie at g. Suppose that the pair g,h is reductive, that means there exists a subspace m such that g=h+m and [h,m]=m. We will say also that the triplet g,h,m is reductive. A homogeneous space G/H with a reductive triplet g,h,m is called reductive; this space has some excellent geometry properties including an effective description of all invariant affine connections on the homogeneous space G/H in terms of the bilinear forms on m, that was received by K.Nomizu in Invariant affine connections on homogeneous spaces, Amer. J. Math., 76, 33-65, 1954. If S is an automorphism of Lie algebra g that saves h and m, S(h)=h and S(m)=m, then we call the reductive triplet g,h,m to be invariant with respect to S . At this case, the automorphism S generates a local affine transformation of the homogeneous space as it was proved by the author in the article Invariant connections and metrics on homogeneous spaces generated by global triplets, Math. Zametki,26,#3,449-463,1979. According to the last basic fact, it is interesting to determine all automorphisms of g that save a given reductive triplet. If g is a compact Lie algebra, then all possible reductive triplets can be formed using a unique direct sum presentation. (Received September 22, 2014)