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Automorphisms of semisimple Hopf algebras which are biproducts. Preliminary report.

The group of automorphisms of a semisimple Hopf algebra is well-known to be finite. We consider semisimple Hopf algebras which are biproducts and explore several notions of automorphism which take into account the additional structure of a biproduct. These notions give rise to subgroups of the full automorphism group. We examine their general structure and discuss the case when both factors of the biproduct are group algebras. These biproducts account for interesting families of semisimple Hopf algebras. (Received May 28, 2014)