

Semi-abelian categories

Walter Tholen*

We propose a new notion of semi-abelian category which is strong enough for us to establish basic “on-abelian” algebraic facts (such as the Noether and Jordan-Hoelder isomorphism theorems), as well as various (co)homological results known for groups, rings, and similar algebraic structures. In modern terms, semi-abelian categories are Barr-exact and Bourn-protomodular categories with finite coproducts and a zero object. We show how these conditions relate to old exactness axioms involving normal monomorphisms and epimorphisms, as used in the fifties and sixties.

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