Tim Van der Linden
Université catholique de Louvain

Co-smash products in semi-abelian algebra

We give an overview of the use of co-smash products [1] and the induced (possibly higher-order) Higgins commutators [5, 3] in semi-abelian algebra. The idea is to express other commutators (the Huq commutator, the Smith commutator, the weighted commutator [2]) in terms of the Higgins commutator [4, 6], and use these expressions to characterise categorical-algebraic properties. We focus on (i) exactness conditions of the change-of-base functors in the fibration of points and (ii) characterising internal categories and (higher-dimensional) central extensions.

References

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