Generalized higher Hopf formulae for homology

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In [2], a connection between the Galois-theoretic approach to semi-abelian homology and the homological closure operators was established. In particular, a generalized Hopf formula for homology was obtained, allowing computations of the fundamental groups [5] corresponding to many interesting reflections arising, for instance, in the categories of groups, rings and compact groups. In my talk, I will present some extensions of this work. In fact, using a new definition of closure operator [6], one can give generalized higher Hopf formulae for homology ([1], [4], [3]) even in a wider context than the one of semi-abelian categories.

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