

The notion of  $n$ -fold Čech derived functors of group valued functors is introduced and the relationship with non-abelian derived functors of functors determined on a pointed variety of groups with operators having simplicial degree 1 is investigated in terms of Quillen spectral sequences. The natural isomorphism of the  $i$ -th,  $0 \leq i \leq n$ , non-abelian derived functor and  $n$ -fold Čech derived functor of the nilization of degree  $k$  functor is given, implying correction and generalization of the well known higher Hopf formulae of Brown-Ellis for integral group homology. Using methods of  $n$ -fold Čech derived functors the CCG-homology of  $n$ -types is expressed in terms of Hopf type formulas. Applications to the well known (co)homology functors and algebraic  $K$ -functors are given.