

# Homotopical approach to group extensions and homology of morphisms

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In this talk we will review the well known result on classification of group extensions with abelian kernels by (equivalence classes of) 2-cocycles from point of view of homotopy theory of simplicial groups. This approach will allow us to extend the classical theory to homology and cohomology of group homomorphisms and obtain analogues of the above-mentioned classification theorem, together with some facts about universal extensions.