

# Extensions for $G$ -acyclic resolutions

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**Abstract.** Given an abelian group  $G$ ,  $n \in \mathbb{N}$ , and a compact metrizable space  $X$  with  $\dim_G(X) \leq n$ , a  $G$ -acyclic resolution is a surjective map  $\pi : Z \rightarrow X$  having fibers which are of trivial Čech cohomology with respect to  $G$ . We always want  $Z$  to be compact and metrizable; in some cases we may require that  $\dim(Z) \leq n$ . In case  $G = \mathbb{Z}/p$ , proofs of the existence of such data have required complicated extensions over triangulated polyhedra. We seek proofs in this case and perhaps others in which one may trade such difficult extensions with some facts in general topology, thereby making the proofs accessible to a wider class of readers. This is work in progress jointly with Vera Tonic.