

# Uniformly finite homology

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Francesca Diana – 27 June 2013

## Abstract

Uniformly finite homology was first introduced by Block and Weinberger as a useful tool to study large-scale structures of spaces with bounded geometry. It is a coarse homology theory in the sense that two quasi-isometric metric spaces have isomorphic uniformly finite homologies. Besides being an interesting theory on its own, uniformly finite homology has many applications in topology and geometry.

In this talk I will introduce uniformly finite homology, present the main examples and applications. I will also construct cross-product and transfer maps to understand the relation between uniformly finite homology of a product of two spaces and the homology of the factors.