

Gromov's Mapping Theorem via multicomplexes

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Abstract: In his pioneering paper "Volume and bounded cohomology" Gromov introduced the notion of bounded cohomology of topological spaces. Among the foundational results, there is the well-celebrated *Mapping Theorem*, which shows how bounded cohomology only depends on the fundamental group of the given space.

The aim of this talk is to explain the ideas behind Gromov's proof of the Mapping Theorem. One crucial ingredient is the theory of *multicomplexes*, a simplicial structure which lies in the middle between simplicial complexes and simplicial sets.

Most of the results discussed in the talk are jointly with Roberto Frigerio.