Homology Theory in Algebraic Topology

Roberta Giancroce

Friday, 6th June 2014, 15:30, room 2AB40

Abstract

The main purpose of this talk is to present the homology theory, in order to see how useful it is in algebraic topology.
Starting from some basic concepts of homological algebra, I will define the singular homology groups $H_n(X)$ of an arbitrary topological space X and list some properties of these groups.
Furthermore, I will introduce the Mayer-Vietoris sequence and derive some applications.

References

[1] Bredon, G.E., *Topology and Geometry*, Springer, 1993.

[2] Hatcher, A., *Algebraic Topology*, Cambridge University Press, 2002.

[3] May, J.P., *A Coincise Course in Algebraic Topology*, Chicago Lectures in Mathemathics, 1999.