

# Download Algebraic Topology Homotopy And Group Cohomology

In mathematics, homotopy groups are used in algebraic topology to classify topological spaces. The first and simplest homotopy group is the fundamental group, which records information about loops in a space. The reader of this book is assumed to have a grasp of the elementary concepts of set theory, general topology, and algebra. Following are brief summaries of some concepts and results in these areas which are used in this book. In most major universities one of the three or four basic first-year graduate mathematics courses is algebraic topology. This introductory text is suitable for use in a course on the subject or for self-study, featuring broad coverage and a readable exposition, with many examples and exercises. In topology, two continuous functions from one topological space to another are called homotopic (from Greek  $\text{homós}$  "same, similar" and  $\text{tópos}$  "place") if one can be "continuously deformed" into the other, such a deformation being called a homotopy between the two functions.