

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 topology, two continuous functions from one topological space to another are called homotopic (from Greek homós "same, similar" and tópos "place") if one can be "continuously deformed" into the other, such a deformation being called a homotopy between the two functions. This note introduces topology, covering topics fundamental to modern analysis and geometry. It also deals with subjects like topological spaces and continuous functions, connectedness, compactness, separation axioms, and selected further topics such as function spaces, metrization theorems, embedding theorems and the fundamental group.