ALEJANDRO ADEM, University of British Columbia

Finite Groups from a Topology Perspective

Understanding the symmetries of a topological space is a classical problem in mathematics. In this talk we will discuss how methods from algebraic topology can be used to approach this. After reviewing well-known results about transformation groups, we will consider the notion of group actions up to homotopy. This leads to interesting interactions between topology, group theory and representation theory. A number of examples will be provided to illustrate this.