

Title:

Classifying spaces for families of subgroups.

Abstract:

Classifying spaces for families of subgroups have been widely studied in the case of the families of finite subgroups and virtually cyclic subgroups, due to them being the geometrical objects in the Baum-Connes Conjecture and Farrell-Jones Conjecture, respectively.

However, those definitions and the Bredon Cohomology on which the algebraic meaning of these objects relies are stated for all families of subgroups. For that reason, classifying spaces for larger families of subgroups is a hardly explored and rich field.

The aim of this talk is to define and illustrate with some examples and properties the concept of classifying spaces for families of subgroups. In particular, for polycyclic groups G , I will describe a construction for models for the classifying space for the family of subgroups with bounded Hirsch length.