## An introduction to algebraic *K*-theory and some applications

Abstract: The algebraic K-theory of a group ring contains interesting invariants relevant to geometric topology but is hard to compute in general. Recently Bartels, Lück, Reich and others made significant progress in determining these K-groups for infinite groups.

I will introduce the functors  $K_0$  and  $K_1$  of a ring and discuss some of their classical applications to geometric questions when applied to group rings, where typically the group will be the fundamental group of a topological space.