

The Farrell-Jones conjecture and lattices in Lie groups

Holger Kammeyer

Karlsruher Institut für Technologie

The Farrell-Jones conjecture claims that the algebraic K - and L -theory of group rings can be computed by means of a certain equivariant homology theory. If true, the conjecture implies a number of well-known open problems in topology and algebra, most notably the Borel conjecture on topological rigidity of aspherical manifolds. Thanks to the work of Bartels-Reich-Lück on controlled topology, proofs of the Farrell-Jones conjecture for certain classes of groups are nowadays geometric in nature. As an example, we give the key steps of a proof for lattices in Lie groups.