SCMS Seminar

On the Strong Novikov Conjecture for Locally Compact Groups in Low Degree Cohomology Classes

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Time: 2:00-3:00 pm., Wednesday, October 12, 2016

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Abstract: The main result I will discuss is non-vanishing of the image of the index map from the G-equivariant K-homology of a G-manifold X to the K-theory of the C*-algebra of the group G. The action of G on X is assumed to be proper and cocompact. Under the assumption that the Kronecker pairing of a K-homology class with a low-dimensional cohomology class is non-zero, we prove that the image of this class under the index map is non-zero. Neither discreteness of the locally compact group G nor freeness of the action of G on X are required. The case of free actions of discrete groups was considered earlier by B. Hanke and T. Schick.