



报告日程

10月31号：格物楼315

时间	报告	主持人
09:20-09:30 开幕式		
09:30-10:20	报告人：龚贵华 题 目：TBA	马昕
10:20-10:50	茶歇（合影）	
10:50-11:40	报告人：李春光 题 目：The single-generator problem for C*-algebras	马昕
午休		
14:00-14:50	报告人：安庆楠 题 目：Bockstein operations and classification of AD algebras with real rank zero	马昕
14:55-15:45	报告人：田更 题 目：An elementary proof of rational injectivity in equivariant KK-theory	
15:45-16:05	茶歇	
16:05-16:55	报告人：刘泓志 题 目：Localization of the de Rham K-homology class	马昕
晚餐		

11月1号：格物楼315

时间	报告	主持人
09:30-10:20	报告人：邓金涛 题 目：The large scale geometry of warped cones	马昕
10:20-10:50	茶歇	
10:50-11:40	报告人：刘智超 题 目：On the Percy-Topping question	马昕

报告题目与摘要

TBA

龚贵华 上海财经大学

摘要: TBA

The single-generator problem for C^* -algebras

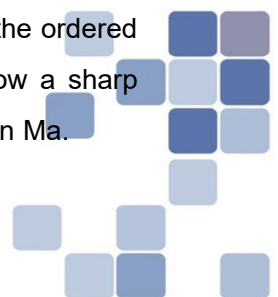
李春光 东北师范大学

摘要: The single-generator problem asks whether every simple separable C^* -algebra can be generated by a single element. It is closely related to the classical generator problem for von Neumann algebras. In this talk, I will first review the background and some of the main developments concerning this problem. I will then present recent joint work on several classes of C^* -algebras. The results presented in this talk arise from joint work, in different collaborations, with George A. Elliott, Zhuang Niu, and Vincent M. Ruzicka.

Bockstein operations and classification of AD algebras with real rank zero

安庆楠 东北师范大学

摘要: The Elliott classification programme aims to classify nuclear C^* -algebras by means of K-theoretic invariants, although information beyond ordinary ordered K-theory is often required. In this talk, we will introduce the total K-theory together with the Bockstein operations, which include the coefficient maps ρ and κ , and the Bockstein maps β . We will show that the Bockstein operations are necessary for the classification of AD algebras with real rank zero. In fact, Eilers established that, for such algebras with bounded torsion in K_1 , the κ -maps are redundant in classification by the ordered scaled total K-theory. In this talk, we will address the unbounded torsion case and show a sharp contrast: the map κ is in fact essential. This is based on joint work with Zhichao Liu and Xin Ma.





An elementary proof of rational injectivity in equivariant KK-theory

田 更 辽宁大学

摘要: Antonini, Azzali and Skandalis proved that, for every countable discrete group Γ , the canonical map $E\Gamma \rightarrow \underline{E}\Gamma$ induces a split injection in equivariant KK-theory with real coefficients. In this paper, we give a more elementary proof of the corresponding rational injectivity result in ordinary equivariant KK-theory without using II_1 factors.

Localization of the de Rham K-homology class

刘泓志 上海财经大学

摘要: Using the Witten deformation and localization algebra techniques, we compute the G -equivariant K -homology class of the de Rham operator on a proper cocompact G -spin manifold, where G is an almost connected Lie group. By applying a G -invariant Morse–Bott perturbation, this class is localized near the zero set of the perturbation and can be identified explicitly with an element in the representation rings associated to some isotropy subgroups. The result yields an equivariant Poincaré–Hopf formula and supplies concise tools for equivariant index computations. This is a joint work with Shaocong Xiang, Hang Wang and Zijong Wang.

The large scale geometry of warped cones

邓金涛 上海财经大学

摘要: Warped cone is a metric space associated with a group action on compact space. Under certain conditions, the large scale geometry of the warped cone captures the dynamical system of the group action. This construction was introduced by John Roe, and he constructed counter examples in large scale geometry using it. In this talk, I will talk about the results about the geometric property (T) and group acts on manifolds. This is based on a joint work with Ryo Toyota.

On the Pearcy-Topping question

刘智超 大连理工大学

摘要: We prove that every compact operator T on a separable infinite-dimensional complex Hilbert space is a commutator of two compact operators.

