

报告人： 邓金涛（加拿大滑铁卢大学博士后）

时间： 11月1日 上午9:00-11:00

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报告人简介：

邓金涛，男，现为加拿大滑铁卢大学数学系博士后；博士毕业于 TAMU（德州农业与机械大学），师从著名非交换几何家郁国梁教授。研究方向为算子代数 K 理论及其相关的 Baum-Connes 猜想。

题目: The KK -theory of Roe algebras and the coarse Baum-Connes conjecture

摘要:

The coarse Baum-Connes conjecture claims that a certain assembly is an isomorphism. It has important applications in the study of the existence of a metric with positive scalar curvature and the Novikov conjecture on the homotopy invariance of the higher signature on a manifold. In this talk, I will talk about the Roe algebras which encode the large-scale geometry of a metric space. The higher index of an elliptic operator is an element of the K-theory of this algebra. The coarse Baum-Connes conjecture provides an algorithm to compute its KK -theory. I will talk about our recent result that the coarse Baum-Connes conjecture holds for the relative expanders constructed by Arzhantseva and Tessera which is not coarsely

embeddable into Hilbert space. I will also talk about a recent result on the equivariant coarse Baum-Connes conjecture.

欢迎各位老师和同学参加!

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