首都师范大学数学科学学院
School of Mathematical Sciences Capital Normal University

首都师范大学 建校七十周年 THE 70TH ANNIVERSARY OF CAPITAL NORMAL UNIVERSITY

励新卓越论坛

学术报告 LECTURE

——首都师范大学数学科学学院建校 70 周年系列学术活动

题　目： The connecting homomorphism in Hermitian K-theory

报告人： 谢恒　教授（中山大学）

摘要： Higher algebraic K-theory was introduced by Daniel Quillen in 1972, earning him a Fields Medal. In his work, Quillen constructs a localization sequence, which is a long exact sequence serving as a powerful computational tool in higher algebraic K-theory. However, the connecting morphism (aka. boundary map) in the localization sequence is too abstract, and Quillen remarks that his proof unfortunately does not shed much light on the nature of the boundary map. An intrinsic description of the connecting morphism remains a mystery to this day. Hermitian K-theory, which generalizes Quillen's higher K-theory, was introduced by Bass and Karoubi in 1973. Hermitian K-theory also possesses a localization sequence and a connecting homomorphism. In this talk, I will provide a geometric description of the connecting homomorphism in Hermitian K-theory. As an application, I will demonstrate how to use this description of the connecting homomorphism to compute Hermitian K-theory of Grassmannians. This is joint work with Tao Huang.

报告人简介：谢恒教授于 2015 年获英国华威大学博士学位，主要从事代数 K 理论的理论研究，解决了 1977 年 M. Knebusch 提出的关于二次超曲面的 Witt 群的一些重要问题。研究成果发表在 Advances in Mathematics、Proceedings of the London Mathematical Society、Documenta Mathematica 等国际知名数学杂志。

时间：2024 年 4 月 9 日（周二）下午 14:00-15:30

地点：教二楼 613 教室

联系人：惠昌常、陈红星

欢迎全体师生积极参加！