代数表示论团队学术报告

**报告题目：Towards categorification of quantum Grassmannian cluster algebras**

**报告人：Xiuping Su (Department of Mathematical Sciences, University of Bath, UK)**

**时间地点：2019年6月26日9:00-10:00, 新主楼1223报告厅.**

**邀请人：刘玉明**

**报告摘要：Based on a cluster category CM(A), we construct compatible pairs of matrices (B(T), L(T)) from a cluster tilting object T in CM(A). We show that**

**1) when the matrix L is constructed from certain special cluster tilting objects , L computes quasi-commutation rules for quasi-commuting quantum minors.**

**2) Mutation of (B(T), L(T)) is consistent with mutation of cluster tilting objects.**

**The goal of this talk is to explain how 1) and 2) lead to a quantum cluster algebra structure on a quantum Grassmannian and thus a categorification of the quantum Grassmannian cluster algebra.**