
Student Geometry Seminar

國立清華大學數學系 學生幾何研討會

講題 Introduction to Quantum Groups

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時間 2024.04.11 (Thu) 16:30 - 18:00

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Abstract

The quantum groups, introduced in Drinfeld's 1986 ICM talk, have found numerous applications to diverse areas including mathematical physics, representation theory, algebraic combinatorics, and low dimensional topology.

I will give a crash course that includes the following features of the quantum groups:

- (1) The origin of the terminology as solutions to the Yang-Baxter equations,
- (2) The definition and its relation to Lie theory,
- (3) The canonical basis and its connection to geometric representation theory,
- (4) The quantum Schur-Weyl duality

