Mathematics Colloquium

February 9, 2023

Quantum Schur dualities ABC

Weiqiang Wang (UVA)

Abstract. The classical Schur duality admits a $q-$deformation due to Jimbo, which is a duality between a quantum group and Hecke algebra of type A. A new quantum Schur duality between an $i-$quantum group (arising from quantum symmetric pairs) and Hecke algebra of type B was formulated by Huanchen Bao and myself. In this talk, I will explain these dualities (with geometric incarnation) and applications to super Kazhdan-Lusztig theories of type ABC.