UNIVERSITY AT ALBANY
State University of New York

Department of Mathematics and Statistics

Colloquium

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Parabolic Lusztig q-Analogues and One-Dimensional Sums

Thursday, October 6, 2011
1:15 p.m. in ES-146
(tea & coffee at 12:45 a.m. in ES-152)

Abstract. Parabolic Lusztig q-analogues are a family of polynomials which include Lusztig's q-analogues of weight multiplicity, which describe the intersection cohomology of certain Schubert varieties in the affine flag manifold.

One-dimensional (1d) sums are polynomials which arose in the study of two-dimensional solvable lattice models and in the Kyoto school's construction of crystal graphs for highest weight modules over quantum affine algebras.

We show that for G of classical type there is a subfamily called stable parabolic Lusztig q-analogues, which coincides with the family of large-rank limits of 1d sums.

This is joint work with Cedric Lecouvey and Masato Okado.