
THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
Algebraic Geometry and Representation Theory Seminar

Room 290C ,Ziskind Building
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Michael Chmutov University of Minnesota

An affine version of Robinson-Schensted Correspondence for Kazhdan-Lusztig theory

Abstract:

In his study of Kazhdan-Lusztig cells in affine type A, Shi has introduced an affine analog of Robinson-Schensted Correspondence. We generalize the Matrix-Ball Construction of Viennot and Fulton to give a more combinatorial realization of Shi's algorithm. As a byproduct, we also give a way to realize the affine correspondence via the usual Robinson-Schensted bumping algorithm. Next, inspired by Honeywill, we extend the algorithm to a bijection between the extended affine symmetric group and collection of triples (P, Q, r) where P and Q are tabloids and r is a dominant weight.