



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 290C ,Ziskind Building  
on Tuesday, Nov 22, 2016  
at 11:15

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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.