

1012-05-39

Lipika Deka, Department of Mathematics, University of California, Davis, CA 95616, and **Anne Schilling***, Department of Mathematics, University of California, Davis, CA 95616. *New fermionic formula for unrestricted Kostka polynomials.*

A new fermionic formula for the unrestricted Kostka polynomials of type $A_{n-1}^{(1)}$ is presented. This formula is different from the one given by Hatayama et al. and is valid for all crystal paths based on Kirillov–Reshetikhin modules, not just for the symmetric and anti-symmetric case. The fermionic formula can be interpreted in terms of a new set of unrestricted rigged configurations. For the proof a statistics preserving bijection from this new set of unrestricted rigged configurations to the set of unrestricted crystal paths is given which generalizes a bijection of Kirillov and Reshetikhin. (Received August 19, 2005)