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Jennifer Morse* (morsej@math.drexel.edu), Math Department, Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104. *Affine tableaux approach to K-theory.*

A family of tableaux connected to the affine symmetric group plays a natural role in affine Schubert calculus and in the theory of Macdonald polynomials similar to that of Young tableaux in classical Schubert calculus.

Our study of K-theory of affine Grassmannians led us to the discovery that combinatorics in this setting involves certain “affine set-valued tableaux”. In particular, these tableaux characterize dual affine Grothendieck polynomials and define the associated Pieri rules. (Received August 31, 2009)