

# Algebra/Topology Seminar

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## LOCAL CONDITION SETS FOR DEMAZURE TABLEAUX

Thursday, October 2, 2014  
1:15 p.m. in ES-143

ABSTRACT. In a Lie theoretic setting, choosing a dominant weight  $\lambda$  and a Weyl group element  $w$  determines a Demazure module. This module yields a Demazure character obtained by summing formal exponentials over its set of weights. In type A, this character can be produced via the weights of a certain set of semistandard tableaux, called Demazure tableaux, using the notion of “right keys” introduced by Lascoux and Schützenberger. In this talk we will present a new method to compute the right key of a semistandard tableau. We will then use it to provide “local conditions” for each value in a given Demazure tableau, analogous to those of semistandard tableaux. If time allows we will discuss further applications such as Demazure atoms, convex polytopes, and connections to Flag-Schur functions.