

# ***ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR***

**Speaker: Mark Skandera**  
**Lehigh University**



**Date:** Tuesday, September 20, 2022

**Time:** 2:30 PM

**Location:** 125 Hayes-Healy Hall

**Zoom URL:** NA

**Lecture Title:**

**Type-BC character evaluations and P-tableaux**

**Abstract**

For  $w$  in  $S_n$  corresponding to a smooth type-A Schubert variety  $X(w)$ , there exists a poset  $P = P(w)$  which provides a combinatorial interpretation of the Kazhdan-Lusztig basis element  $C_w(1)$  in  $Z[S_n]$ . Evaluations of characters at  $C_w(1)$  may be computed by counting special P-tableaux. We state a type-BC analog of these results. Namely, for  $w$  in the hyperoctahedral group  $B_n$  such that the type-B and type-C Schubert varieties are simultaneously smooth, there exists a type-BC poset  $P = P(w)$  which provides a combinatorial interpretation of the Kazhdan-Lusztig basis element  $C_w(1)$  in  $Z[B_n]$ . Again, evaluations of characters at the Kazhdan-Lusztig basis element  $C_w(1)$  of  $Z[B_n]$  may be computed by counting special P-tableaux.