1147-20-755   **Eric Marberg*** (`eric.marberg@gmail.com`), Department of Mathematics, HKUST, Clear Water Bay, Kowloon 518000, Hong Kong. *Shifted stable Grothendieck polynomials for symplectic orbit closures.*

The Schubert cells in the complete flag variety are the orbits of a Borel subgroup. The closures of these orbits have a natural weak order, which corresponds to the usual weak order on permutations. Edelman-Greene insertion (along with Hecke insertion, its K-theoretic generalization) may be interpreted as a bijection between maximal chains in this weak order and certain pairs of tableaux. The symplectic group also acts on the complete flag variety, and its orbit closures have an analogous weak order. This talk will discuss symplectic analogues of Edelman-Greene insertion and Hecke insertion, which give correspondences between the maximal chains in this order and certain pairs of shifted tableaux. As applications, we will investigate the positivity properties of natural "shifted" stable Grothendieck polynomials associated to symplectic orbit closures. (Received January 28, 2019)