LAURA ESCOBAR, Washington University in St. Louis
Gröbner bases for a family of symmetric determinantal ideals

I will discuss a class of combinatorially-defined polynomial ideals which are generated by minors of a generic symmetric matrix. Each ideal in the class encodes the coordinates and equations for neighborhoods of certain type C Schubert varieties at torus fixed points. Our main result gives Gröbner bases for these ideals. The first part of the talk will focus on motivation and connections to both the Schubert variety literature and the commutative algebra literature. Then I will discuss our Gröbner basis result as well as combinatorial formulas for their multigraded Hilbert series in terms of pipe dreams.

This is joint work with Alex Fink, Jenna Rajchgot, and Alexander Woo.