LUCAS GAGNON, University of Southern California
Formulas for Koornwinder Polynomials

This talk will consider the problem of combinatorial formulas for nonsymmetric Koornwinder polynomials, which are the nonsymmetric Macdonald polynomials of the non-reduced type $(C_n^\vee, C)$. I'll start by presenting a tableau formula based on alcove walks; while this formula is ostensibly combinatorial it contains a huge number of terms. Then I will discuss the problem of compressing the tableau formula into something closer to the established fillings formula for classical (type A) Macdonald polynomials. Finally I will apply compression techniques, with varying levels of success, to Koornwinder polynomials and state the resulting 'compression formula.' Based on joint work with Laura Colmenarejo and Arun Ram.