Abstract:
Originally developed independently by physicists (for use in statistical mechanics) and combinatorialists (to study alternating sign matrices), six-vertex models have recently found applications in probability and $p$-adic representation theory. In particular, there are six-vertex models whose partition functions evaluate to values various $p$-adic matrix coefficients, e.g. Whittaker functions. In this talk, I will discuss prospective lattice models whose partition functions appear to give type B/C Hall-Littlewood polynomials. This is ongoing joint work with Ben Brubaker and Andy Schultz.