Philadelphia Area Number Theory Seminar

Will Grodzicki

Lafayette College

Six-Vertex Lattice Models and *p*-Adic Matrix Coefficients

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.

> **Thursday**, October 21, 2021 3:25 – 4:45 PM

Bryn Mawr College Department of Mathematics Park Science Center **245** Informal refreshments at 3:10PM in Park 361