Explicit formulas for special functions: crystal bases, ice models, and Iwahori-Hecke algebras

Ben Brubaker (University of Minnesota)

We discuss various ways of obtaining explicit expressions for symmetric functions and their deformations, which are often realized as matrix coefficients for p-adic groups. The three methods featured are statistical mechanics (two-dimensional lattice models), crystal bases for highest weight representations, and symmetrizers in Iwahori-Hecke algebras.