

The combinatorics of tableaux and symmetric functions.

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102 Bradley Hall, 4:00 pm
(Tea 3:30 pm Math Lounge)

Abstract

We will learn to play with combinatorial structures, tableaux, in such a way that important properties of symmetric functions are revealed. In particular, we will introduce several bases for the space of symmetric functions and show how they can be represented using tableaux. Further, we will discuss the Macdonald polynomials, a fascinating generalization for most fundamental bases of the symmetric function space. We will present a simple method for building sets of tableaux and show the role of these sets in a longstanding Macdonald conjecture.