

Temple/Penn Probability Seminar

Random pattern-avoiding permutations

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Tuesday, October 27, 2015
2:30-3:30pm, Rittenhouse Lab 3C8 (Penn)

In this talk we will discuss recent results on the structure of random pattern-avoiding permutations. We will focus a surprising connection between random permutations avoiding a fixed pattern of length three and Brownian excursion. For example, this connection lets us describe the shape of the graph of a random 231-avoiding permutation of $1, \dots, n$ as n tends to infinity as well as the asymptotic distribution of fixed points in terms of Brownian excursion. Time permitting, we will discuss work in progress on permutations avoiding longer patterns. This talk is based on joint work with Christopher Hoffman and Erik Slivken.