

Longest Increasing Subsequences: From Patience Sorting to the Baik-Deift-Johansson Theorem

Authors: **David Aldous and Persi Diaconis**

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Abstract:

We describe a simple one-person card game, *patience sorting*. Its analysis leads to a broad circle of ideas linking Young tableaux with the longest increasing subsequence of a random permutation via the Schensted correspondence. A recent highlight of this area is the work of Baik-Deift-Johansson which yields limiting probability laws via hard analysis of Toeplitz determinants.