

# Will Perkins

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

445  
citations

840776

11  
h-index

888059

17  
g-index

43  
all docs

43  
docs citations

43  
times ranked

157  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | On the number of independent sets in uniform, regular, linear hypergraphs. <i>European Journal of Combinatorics</i> , 2022, 99, 103401. | 0.8 | 1         |
| 2  | Independent sets of a given size and structure in the hypercube. <i>Combinatorics Probability and Computing</i> , 2022, 31, 702-720.    | 1.3 | 4         |
| 3  | Correlation decay for hard spheres via Markov chains. <i>Annals of Applied Probability</i> , 2022, 32, .                                | 1.3 | 3         |
| 4  | Approximate counting and sampling via local central limit theorems. , 2022, , .   |     | 4         |
| 5  | Computational thresholds for the fixed-magnetization Ising model. , 2022, , .   |     | 0         |
| 6  | Fast algorithms at low temperatures via Markov chains. <i>Random Structures and Algorithms</i> , 2021, 58, 294-321.                     | 1.1 | 17        |
| 7  | Frozen 1-RSB structure of the symmetric Ising perceptron. , 2021, , .   |     | 14        |
| 8  | A proof of the upper matching conjecture for large graphs. <i>Journal of Combinatorial Theory Series B</i> , 2021, 151, 393-416.        | 1.0 | 4         |
| 9  | Three simple scenarios for high-dimensional sphere packings. <i>Physical Review E</i> , 2021, 104, 064612.                              | 2.1 | 3         |
| 10 | Algorithmic Pirogov-Sinai theory. <i>Probability Theory and Related Fields</i> , 2020, 176, 851-895.                                    | 1.8 | 24        |
| 11 | Independent sets in the hypercube revisited. <i>Journal of the London Mathematical Society</i> , 2020, 102, 645-669.                    | 1.0 | 14        |
| 12 | Algorithms for #BIS-Hard Problems on Expander Graphs. <i>SIAM Journal on Computing</i> , 2020, 49, 681-710.                             | 1.0 | 17        |
| 13 | Counting independent sets in unbalanced bipartite graphs. , 2020, , 1456-1466.  |     | 16        |
| 14 | Efficient sampling and counting algorithms for the Potts model on $\hat{\mathbb{A}}, \hat{\mu}$ at all temperatures. , 2020, , .        |     | 15        |
| 15 | Spin Systems on Bethe Lattices. <i>Communications in Mathematical Physics</i> , 2019, 372, 441-523.                                     | 2.2 | 8         |
| 16 | Algorithmic Pirogov-Sinai theory. , 2019, , .   |     | 17        |
| 17 | Storage capacity in symmetric binary perceptrons. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 294003.         | 2.1 | 23        |
| 18 | Bethe States of Random Factor Graphs. <i>Communications in Mathematical Physics</i> , 2019, 366, 173-201.                               | 2.2 | 10        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | ON THE HARD SPHERE MODEL AND SPHERE PACKINGS IN HIGH DIMENSIONS. Forum of Mathematics, Sigma, 2019, 7, .  | 0.7 | 24        |
| 20 | Algorithms for #BIS-hard problems on expander graphs. , 2019, , 2235-2247.  |     | 11        |
| 21 | Extremes of the internal energy of the Potts model on cubic graphs. Random Structures and Algorithms, 2018, 53, 59-75.  | 1.1 | 11        |
| 22 | Belief propagation on replica symmetric random factor graph models. Annales De L'Institut Henri Poincare (D) Combinatorics, Physics and Their Interactions, 2018, 5, 211-249. | 1.1 | 7         |
| 23 | On the Resilience of Bipartite Networks. , 2018, , .  |     | 0         |
| 24 | Counting independent sets in cubic graphs of given girth. Journal of Combinatorial Theory Series B, 2018, 133, 211-242.   | 1.0 | 9         |
| 25 | Information-theoretic thresholds from the cavity method. Advances in Mathematics, 2018, 333, 694-795.   | 1.1 | 44        |
| 26 | Tight bounds on the coefficients of partition functions via stability. Journal of Combinatorial Theory - Series A, 2018, 160, 1-30.   | 0.8 | 3         |
| 27 | On the Complexity of Random Satisfiability Problems with Planted Solutions. SIAM Journal on Computing, 2018, 47, 1294-1338.   | 1.0 | 14        |
| 28 | On kissing numbers and spherical codes in high dimensions. Advances in Mathematics, 2018, 335, 307-321.   | 1.1 | 14        |
| 29 | The Widomâ€™Rowlinson model, the hard-core model and the extremality of the complete graph. European Journal of Combinatorics, 2017, 62, 70-76.                               | 0.8 | 3         |
| 30 | On the Widomâ€™Rowlinson Occupancy Fraction in Regular Graphs. Combinatorics Probability and Computing, 2017, 26, 183-194.  | 1.3 | 7         |
| 31 | Tight bounds on the coefficients of partition functions via stability. Electronic Notes in Discrete Mathematics, 2017, 61, 317-321.   | 0.4 | 0         |
| 32 | Independent sets, matchings, and occupancy fractions. Journal of the London Mathematical Society, 2017, 96, 47-66.  | 1.0 | 24        |
| 33 | On the average size of independent sets in triangle-free graphs. Proceedings of the American Mathematical Society, 2017, 146, 111-124.  | 0.8 | 18        |
| 34 | Information-theoretic thresholds from the cavity method. , 2017, , .  |     | 13        |
| 35 | Birthday inequalities, repulsion, and hard spheres. Proceedings of the American Mathematical Society, 2016, 144, 2635-2649.   | 0.8 | 6         |
| 36 | Large deviations for the empirical distribution in the branching random walk. Electronic Journal of Probability, 2015, 20, .  | 1.0 | 5         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Random $k$ -SAT and the power of two choices. <i>Random Structures and Algorithms</i> , 2015, 47, 163-173.                                       | 1.1 | 1         |
| 38 | On the Complexity of Random Satisfiability Problems with Planted Solutions. , 2015, , .  |     | 21        |
| 39 | Some deficiencies of $\chi^2$ and classical exact tests of significance. <i>Applied and Computational Harmonic Analysis</i> , 2014, 36, 361-386. | 2.2 | 1         |
| 40 | The forgetfulness of balls and bins. <i>Random Structures and Algorithms</i> , 2013, 42, 250-267.  | 1.1 | 0         |
| 41 | The Bohman-Frieze process near criticality. <i>Random Structures and Algorithms</i> , 2013, 43, 221-250.   | 1.1 | 6         |
| 42 | Hardness of Finding Independent Sets in Almost 3-Colorable Graphs. , 2010, , .   |     | 8         |