

# Gavin E Crooks

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5683929/gavin-e-crooks-publications-by-citations.pdf>  
**Version:** 2024-04-04

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

40 papers	12,692 citations	27 h-index	41 g-index
41 ext. papers	15,202 ext. citations	4.7 avg, IF	6.74 L-index

#	Paper	IF	Citations
40	WebLogo: a sequence logo generator. <i>Genome Research</i> , <b>2004</b> , 14, 1188-90	9.7	7896
39	Entropy production fluctuation theorem and the nonequilibrium work relation for free energy differences. <i>Physical Review E</i> , <b>1999</b> , 60, 2721-6	2.4	1603
38	Nonequilibrium Measurements of Free Energy Differences for Microscopically Reversible Markovian Systems. <i>Journal of Statistical Physics</i> , <b>1998</b> , 90, 1481-1487	1.5	730
37	Path-ensemble averages in systems driven far from equilibrium. <i>Physical Review E</i> , <b>2000</b> , 61, 2361-2366	2.4	723
36	Measuring thermodynamic length. <i>Physical Review Letters</i> , <b>2007</b> , 99, 100602	7.4	194
35	Thermodynamic metrics and optimal paths. <i>Physical Review Letters</i> , <b>2012</b> , 108, 190602	7.4	158
34	Scaling laws governing stochastic growth and division of single bacterial cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 15912-7	11.5	132
33	Thermodynamics of prediction. <i>Physical Review Letters</i> , <b>2012</b> , 109, 120604	7.4	129
32	Length of time's arrow. <i>Physical Review Letters</i> , <b>2008</b> , 101, 090602	7.4	79
31	Quantum operation time reversal. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	70
30	Nonequilibrium candidate Monte Carlo is an efficient tool for equilibrium simulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, E1009-18	11.5	66
29	On the Jarzynski relation for dissipative quantum dynamics. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2008</b> , 2008, P10023	1.9	65
28	Geometry of thermodynamic control. <i>Physical Review E</i> , <b>2012</b> , 86, 041148	2.4	63
27	Protein secondary structure: entropy, correlations and prediction. <i>Bioinformatics</i> , <b>2004</b> , 20, 1603-11	7.2	62
26	Work distribution for the adiabatic compression of a dilute and interacting classical gas. <i>Physical Review E</i> , <b>2007</b> , 75, 021116	2.4	60
25	Beyond Boltzmann-Gibbs statistics: maximum entropy hyperensembles out of equilibrium. <i>Physical Review E</i> , <b>2007</b> , 75, 041119	2.4	51
24	Comparison of hydrolysis and esterification behavior of Humicola lanuginosa and Rhizomucor miehei lipases in AOT-stabilized water-in-oil microemulsions: I. Effect of pH and water content on reaction kinetics. <i>Biotechnology and Bioengineering</i> , <b>1995</b> , 48, 78-88	4.9	49

23	Bayesian estimates of free energies from nonequilibrium work data in the presence of instrument noise. <i>Journal of Chemical Physics</i> , <b>2008</b> , 129, 024102	3.9	48
22	Gaussian statistics of the hard-sphere fluid. <i>Physical Review E</i> , <b>1997</b> , 56, 4217-4221	2.4	43
21	Time step rescaling recovers continuous-time dynamical properties for discrete-time Langevin integration of nonequilibrium systems. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 6466-74	3.4	40
20	Near-equilibrium measurements of nonequilibrium free energy. <i>Physical Review Letters</i> , <b>2012</b> , 108, 150601	3.4	40
19	Using Nonequilibrium Fluctuation Theorems to Understand and Correct Errors in Equilibrium and Nonequilibrium Simulations of Discrete Langevin Dynamics. <i>Physical Review X</i> , <b>2013</b> , 3,	9.1	38
18	Universality in stochastic exponential growth. <i>Physical Review Letters</i> , <b>2014</b> , 113, 028101	7.4	37
17	Far-from-equilibrium measurements of thermodynamic length. <i>Physical Review E</i> , <b>2009</b> , 79, 012104	2.4	34
16	Measurements of protein sequence-structure correlations. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2004</b> , 57, 804-10	4.2	32
15	Geometric approach to optimal nonequilibrium control: Minimizing dissipation in nanomagnetic spin systems. <i>Physical Review E</i> , <b>2017</b> , 95, 012148	2.4	30
14	Optimal control in nonequilibrium systems: Dynamic Riemannian geometry of the Ising model. <i>Physical Review E</i> , <b>2015</b> , 92, 060102	2.4	30
13	Thermodynamic geometry of minimum-dissipation driven barrier crossing. <i>Physical Review E</i> , <b>2016</b> , 94, 052106	2.4	27
12	Comparison of hydrolysis and esterification behavior of Humicola lanuginosa and Rhizomucor miehei lipases in AOT-stabilized water-in-oil microemulsions: II. Effect of temperature on reaction kinetics and general considerations of stability and productivity. <i>Biotechnology and Bioengineering</i> , <b>2005</b> , 49, 189-196	4.9	23
11	A generalized affine gap model significantly improves protein sequence alignment accuracy. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2005</b> , 58, 329-38	4.2	22
10	Near-optimal protocols in complex nonequilibrium transformations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 10263-8	11.5	21
9	Quantifying Configuration-Sampling Error in Langevin Simulations of Complex Molecular Systems. <i>Entropy</i> , <b>2018</b> , 20,	2.8	17
8	Measures of trajectory ensemble disparity in nonequilibrium statistical dynamics. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2011</b> , 2011, P06003	1.9	16
7	An alternative model of amino acid replacement. <i>Bioinformatics</i> , <b>2005</b> , 21, 975-80	7.2	16
6	On thermodynamic and microscopic reversibility. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2011</b> , 2011, P07008	1.9	14

5	Pairwise alignment incorporating dipeptide covariation. <i>Bioinformatics</i> , <b>2005</b> , 21, 3704-10	7.2	13
4	Two-Qubit Circuit Depth and the Monodromy Polytope. <i>Quantum - the Open Journal for Quantum Science</i> , 4, 247		9
3	Marginal and conditional second laws of thermodynamics. <i>Europhysics Letters</i> , <b>2019</b> , 125, 40005	1.6	6
2	Lipases in Water-in-Oil Microemulsions, Organogels and Winsor II Systems: Aspects of Reactivity and Separation Science <b>1996</b> , 577-595		4
1	Quantifying configuration-sampling error in Langevin simulations of complex molecular systems		1