

Timothy Cooper

List of Publications by Year in descending order

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44
papers

2,990
citations

257450

24
h-index

265206

42
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46
all docs

46
docs citations

46
times ranked

3238
citing authors

#	ARTICLE	IF	CITATIONS
1	Historical Contingency Causes Divergence in Adaptive Expression of the <i>lac</i> Operon. <i>Molecular Biology and Evolution</i> , 2021, 38, 2869-2879.	8.9	6
2	Dynamics of bacterial adaptation. <i>Biochemical Society Transactions</i> , 2021, 49, 945-951.	3.4	0
3	The cost of evolved constitutive <i>lac</i> gene expression is usually, but not always, maintained during evolution of generalist populations. <i>Ecology and Evolution</i> , 2021, 11, 12497-12507.	1.9	4
4	Bacterial Evolution in High-Osmolarity Environments. <i>MBio</i> , 2020, 11, .	4.1	12
5	Environment-dependent costs and benefits of recombination in independently evolved populations of <i>Escherichia coli</i> *. <i>Evolution; International Journal of Organic Evolution</i> , 2020, 74, 1865-1873.	2.3	1
6	Environment changes epistasis to alter tradeoffs along alternative evolutionary paths. <i>Evolution; International Journal of Organic Evolution</i> , 2019, 73, 2094-2105.	2.3	28
7	Predicting microbial growth in a mixed culture from growth curve data. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14698-14707.	7.1	102
8	Diversity in <i>lac</i> Operon Regulation among Diverse <i>Escherichia coli</i> Isolates Depends on the Broader Genetic Background but Is Not Explained by Genetic Relatedness. <i>MBio</i> , 2019, 10, .	4.1	10
9	The fitness challenge of studying molecular adaptation. <i>Biochemical Society Transactions</i> , 2019, 47, 1533-1542.	3.4	5
10	Effects of Beneficial Mutations in <i>pykF</i> Gene Vary over Time and across Replicate Populations in a Long-Term Experiment with Bacteria. <i>Molecular Biology and Evolution</i> , 2018, 35, 202-210.	8.9	28
11	Diminishing-returns epistasis decreases adaptability along an evolutionary trajectory. <i>Nature Ecology and Evolution</i> , 2017, 1, 61.	7.8	79
12	Adaptation of <i>Escherichia coli</i> to glucose promotes evolvability in lactose. <i>Evolution; International Journal of Organic Evolution</i> , 2016, 70, 465-470.	2.3	13
13	Benefit of transferred mutations is better predicted by the fitness of recipients than by their ecological or genetic relatedness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 5047-5052.	7.1	41
14	Grappling with anisotropic data, pseudo-merohedral twinning and pseudo-translational noncrystallographic symmetry: a case study involving pyruvate kinase. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 512-519.	2.3	10
15	Cellular Growth Arrest and Persistence from Enzyme Saturation. <i>PLoS Computational Biology</i> , 2016, 12, e1004825.	3.2	30
16	Constraints on adaptation of <i>Escherichia coli</i> to mixed-resource environments increase over time. <i>Evolution; International Journal of Organic Evolution</i> , 2015, 69, 2067-2078.	2.3	44
17	Systematic Perturbation of Cytoskeletal Function Reveals a Linear Scaling Relationship between Cell Geometry and Fitness. <i>Cell Reports</i> , 2014, 9, 1528-1537.	6.4	61
18	Mechanisms and selection of evolvability: experimental evidence. <i>FEMS Microbiology Reviews</i> , 2013, 37, 572-582.	8.6	19

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19	Effects of Fe nanoparticles on bacterial growth and biosurfactant production. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	21
20	Evolutionary history and genetic parallelism affect correlated responses to evolution. <i>Molecular Ecology</i> , 2013, 22, 3292-3303.	3.9	23
21	The Environment Affects Epistatic Interactions to Alter the Topology of an Empirical Fitness Landscape. <i>PLoS Genetics</i> , 2013, 9, e1003426.	3.5	94
22	Genetic background affects epistatic interactions between two beneficial mutations. <i>Biology Letters</i> , 2013, 9, 20120328.	2.3	47
23	Measuring Selection Coefficients Below 10^{-3} : Method, Questions, and Prospects. <i>Genetics</i> , 2012, 190, 175-186.	2.9	75
24	Robust Detection of Hierarchical Communities from <i>Escherichia coli</i> Gene Expression Data. <i>PLoS Computational Biology</i> , 2012, 8, e1002391.	3.2	35
25	Adaptive Evolution of the Lactose Utilization Network in Experimentally Evolved Populations of <i>Escherichia coli</i> . <i>PLoS Genetics</i> , 2012, 8, e1002444.	3.5	56
26	Estimation of the rate and effect of new beneficial mutations in asexual populations. <i>Theoretical Population Biology</i> , 2012, 81, 168-178.	1.1	16
27	Second-Order Selection for Evolvability in a Large <i>Escherichia coli</i> Population. <i>Science</i> , 2011, 331, 1433-1436.	12.6	300
28	Negative Epistasis Between Beneficial Mutations in an Evolving Bacterial Population. <i>Science</i> , 2011, 332, 1193-1196.	12.6	497
29	The causes of epistasis. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 3617-3624.	2.6	175
30	The distribution of fitness effects of new beneficial mutations in <i>Pseudomonas fluorescens</i> . <i>Biology Letters</i> , 2011, 7, 98-100.	2.3	48
31	Experimental evolution with <i>E. coli</i> in diverse resource environments. I. Fluctuating environments promote divergence of replicate populations. <i>BMC Evolutionary Biology</i> , 2010, 10, 11.	3.2	102
32	Within-host competition selects for plasmid-encoded toxin-antitoxin systems. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010, 277, 3149-3155.	2.6	29
33	Metabolism gets lucky. <i>Molecular Systems Biology</i> , 2010, 6, 439.	7.2	3
34	Identification and dynamics of a beneficial mutation in a long-term evolution experiment with <i>Escherichia coli</i> . <i>BMC Evolutionary Biology</i> , 2009, 9, 302.	3.2	35
35	Microbes exploit groundhog day. <i>Nature</i> , 2009, 460, 181-181.	27.8	2
36	Expression Profiles Reveal Parallel Evolution of Epistatic Interactions Involving the CRP Regulon in <i>Escherichia coli</i> . <i>PLoS Genetics</i> , 2008, 4, e35.	3.5	59

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37	Recombination Speeds Adaptation by Reducing Competition between Beneficial Mutations in Populations of <i>Escherichia coli</i> . <i>PLoS Biology</i> , 2007, 5, e225.	5.6	182
38	A NEGATIVE RELATIONSHIP BETWEEN MUTATION PLEIOTROPY AND FITNESS EFFECT IN YEAST. <i>Evolution; International Journal of Organic Evolution</i> , 2007, 61, 1495-1499.	2.3	52
39	Effect of random and hub gene disruptions on environmental and mutational robustness in <i>Escherichia coli</i> . <i>BMC Genomics</i> , 2006, 7, 237.	2.8	32
40	Parasites and mutational load: an experimental test of a pluralistic theory for the evolution of sex. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 311-317.	2.6	43
41	Evolution of bacterial diversity and the origins of modularity. <i>Research in Microbiology</i> , 2004, 155, 370-375.	2.1	27
42	Parallel changes in gene expression after 20,000 generations of evolution in <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1072-1077.	7.1	409
43	Transfer of Conjugative Plasmids and Bacteriophage λ Occurs in the Presence of Antibiotics That Prevent de Novo Gene Expression. <i>Plasmid</i> , 2000, 43, 171-175.	1.4	13
44	Postsegregational killing does not increase plasmid stability but acts to mediate the exclusion of competing plasmids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 12643-12648.	7.1	122