

Igor M Rouzine

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

2,892
citations

279701

23
h-index

182361

51
g-index

59
all docs

59
docs citations

59
times ranked

2547
citing authors

#	ARTICLE	IF	CITATIONS
1	The solitary wave of asexual evolution. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 587-592.	3.3	222
2	A Hardwired HIV Latency Program. Cell, 2015, 160, 990-1001.	13.5	213
3	Distribution of fixed beneficial mutations and the rate of adaptation in asexual populations. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4950-4955.	3.3	209
4	Thermoelectric response of an interacting two-dimensional electron gas in a quantizing magnetic field. Physical Review B, 1997, 55, 2344-2359.	1.1	189
5	Stochastic Coulomb blockade in a double-dot system. Physical Review B, 1992, 45, 13469-13478.	1.1	170
6	Transition between Stochastic Evolution and Deterministic Evolution in the Presence of Selection: General Theory and Application to Virology. Microbiology and Molecular Biology Reviews, 2001, 65, 151-185.	2.9	155
7	Quantum transport and pinning of a one-dimensional Wigner crystal. Physical Review B, 1992, 45, 8454-8463.	1.1	153
8	The traveling-wave approach to asexual evolution: Muller's ratchet and speed of adaptation. Theoretical Population Biology, 2008, 73, 24-46.	0.5	149
9	RNA Recombination Enhances Adaptability and Is Required for Virus Spread and Virulence. Cell Host and Microbe, 2016, 19, 493-503.	5.1	133
10	Theory of the fractional quantum Hall effect: The two-phase model. Physical Review B, 1994, 50, 2369-2379.	1.1	115
11	Linkage disequilibrium test implies a large effective population number for HIV in vivo. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 10758-10763.	3.3	113
12	Estimate of effective recombination rate and average selection coefficient for HIV in chronic infection. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5661-5666.	3.3	99
13	An Evolutionary Role for HIV Latency in Enhancing Viral Transmission. Cell, 2015, 160, 1002-1012.	13.5	91
14	Evolution of Human Immunodeficiency Virus Under Selection and Weak Recombination. Genetics, 2005, 170, 7-18.	1.2	77
15	Universal Relation between Longitudinal and Transverse Conductivities in Quantum Hall Effect. Physical Review Letters, 1995, 74, 154-157.	2.9	72
16	The Stochastic Edge in Adaptive Evolution. Genetics, 2008, 179, 603-620.	1.2	68
17	Nonuniversal behavior of finite quantum Hall systems as a result of weak macroscopic inhomogeneities. Physical Review B, 1996, 53, 1558-1572.	1.1	42
18	Link between immune response and parasite synchronization in malaria. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3473-3478.	3.3	41

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19	Stochastic variability in HIV affects viral eradication. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13251-13252.	3.3	40
20	Search for the Mechanism of Genetic Variation in the pro Gene of Human Immunodeficiency Virus. Journal of Virology, 1999, 73, 8167-8178.	1.5	40
21	Pinning of a two-dimensional Wigner crystal by charged impurities. Physical Review B, 1992, 46, 3999-4008.	1.1	38
22	Multi-site adaptation in the presence of infrequent recombination. Theoretical Population Biology, 2010, 77, 189-204.	0.5	36
23	Design Requirements for Interfering Particles To Maintain Coadaptive Stability with HIV-1. Journal of Virology, 2013, 87, 2081-2093.	1.5	28
24	Highly fit ancestors of a partly sexual haploid population. Theoretical Population Biology, 2007, 71, 239-250.	0.5	27
25	Antigenic evolution of viruses in host populations. PLoS Pathogens, 2018, 14, e1007291.	2.1	26
26	Two types of cytotoxic lymphocyte regulation explain kinetics of immune response to human immunodeficiency virus. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 666-671.	3.3	24
27	The Route of HIV Escape from Immune Response Targeting Multiple Sites Is Determined by the Cost-Benefit Tradeoff of Escape Mutations. PLoS Computational Biology, 2014, 10, e1003878.	1.5	24
28	Conflicting Selection Pressures Will Constrain Viral Escape from Interfering Particles: Principles for Designing Resistance-Proof Antivirals. PLoS Computational Biology, 2016, 12, e1004799.	1.5	22
29	Size effect in the longitudinal hopping conduction of a narrow two-dimensional channel. Physical Review B, 1990, 42, 11203-11207.	1.1	21
30	Increasing Sequence Correlation Limits the Efficiency of Recombination in a Multisite Evolution Model. Molecular Biology and Evolution, 2007, 24, 574-586.	3.5	19
31	Rapid Adaptive Amplification of Preexisting Variation in an RNA Virus. Journal of Virology, 2008, 82, 4354-4362.	1.5	19
32	Evolutionary footprint of epistasis. PLoS Computational Biology, 2018, 14, e1006426.	1.5	18
33	Hall transport in nonuniform two-dimensional conductors. Physical Review B, 1993, 47, 15727-15734.	1.1	16
34	Density of states of localized phonons in a pinned Wigner crystal. Physical Review Letters, 1994, 72, 1056-1059.	2.9	14
35	Generals die in friendly fire, or modeling immune response to HIV. Journal of Computational and Applied Mathematics, 2005, 184, 258-274.	1.1	14
36	Statistical properties of the low-temperature conductance peak heights for Corbino disks in the quantum Hall regime. Physical Review B, 1997, 55, 4551-4557.	1.1	13

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37	Model with two types of CTL regulation and experiments on CTL dynamics. <i>Journal of Theoretical Biology</i> , 2010, 263, 369-384.	0.8	13
38	Fifteen Years Later: Hard and Soft Selection Sweeps Confirm a Large Population Number for HIV In Vivo. <i>PLoS Genetics</i> , 2014, 10, e1004179.	1.5	13
39	Experimental and mathematical insights on the interactions between poliovirus and a defective interfering genome. <i>PLoS Pathogens</i> , 2021, 17, e1009277.	2.1	13
40	The quantitative theory of within-host viral evolution. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P01009.	0.9	12
41	Distribution function of hopping conductance fluctuations of a short GaAs field effect transistor channel. <i>Solid State Communications</i> , 1989, 72, 169-172.	0.9	11
42	Epistasis detectably alters correlations between genomic sites in a narrow parameter window. <i>PLoS ONE</i> , 2019, 14, e0214036.	1.1	10
43	The evolutionary origin of the universal distribution of mutation fitness effect. <i>PLoS Computational Biology</i> , 2021, 17, e1008822.	1.5	7
44	Interpreting the effect of vaccination on steady state infection in animals challenged with Simian immunodeficiency virus. <i>Journal of Theoretical Biology</i> , 2010, 263, 385-392.	0.8	6
45	Variability in viral pathogenesis: modeling the dynamic of acute and persistent infections. <i>Current Opinion in Virology</i> , 2017, 23, 120-124.	2.6	6
46	An Evolutionary Model of Progression to AIDS. <i>Microorganisms</i> , 2020, 8, 1714.	1.6	6
47	An evolution-based high-fidelity method of epistasis measurement: Theory and application to influenza. <i>PLoS Pathogens</i> , 2021, 17, e1009669.	2.1	6
48	Fine structure of hopping conductance fluctuations in finite-size semiconductors. <i>Physical Review B</i> , 1991, 43, 11864-11872.	1.1	5
49	Reply to "Coadaptive Stability of Interfering Particles with HIV-1 When There Is an Evolutionary Conflict". <i>Journal of Virology</i> , 2013, 87, 9960-9962.	1.5	4
50	Metal to insulator crossover in mesoscopic wires. <i>Physica Scripta</i> , 1992, T42, 122-132.	1.2	1