Uri Alon

List of Publications by Year
in descending order

69	7,512	101543	106344
papers	citations	36 h-index	65 g-index

77	77	77	9677
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Network motifs: theory and experimental approaches. Nature Reviews Genetics, 2007, 8, 450-461.	16.3	2,789
2	Optimality and evolutionary tuning of the expression level of a protein. Nature, 2005, 436, 588-592.	27.8	712
3	A cellular and regulatory map of the cholinergic nervous system of C. elegans. ELife, 2015, 4, .	6.0	279
4	Circuit Design Features of a Stable Two-Cell System. Cell, 2018, 172, 744-757.e17.	28.9	276
5	Massively Parallel Interrogation of the Effects of Gene Expression Levels on Fitness. Cell, 2016, 166, 1282-1294.e18.	28.9	168
6	Cancer-associated fibroblast compositions change with breast cancer progression linking the ratio of S100A4+ and PDPN+ CAFs to clinical outcome. Nature Cancer, 2020, 1, 692-708.	13.2	159
7	Inferring biological tasks using Pareto analysis of high-dimensional data. Nature Methods, 2015, 12, 233-235.	19.0	145
8	Central dogma rates and the trade-off between precision and economy in gene expression. Nature Communications, 2019, 10, 68.	12.8	140
9	Prediction of multidimensional drug dose responses based on measurements of drug pairs. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10442-10447.	7.1	139
10	A Tunable Mechanism Determines the Duration of the Transgenerational Small RNA Inheritance in C.Âelegans. Cell, 2016, 165, 88-99.	28.9	129
11	Tumour heterogeneity and the evolutionary trade-offs of cancer. Nature Reviews Cancer, 2020, 20, 247-257.	28.4	111
12	Glucose becomes one of the worst carbon sources for E.coli on poor nitrogen sources due to suboptimal levels of cAMP. Scientific Reports, 2016, 6, 24834.	3.3	110
13	Optimality and sub-optimality in a bacterial growth law. Nature Communications, 2017, 8, 14123.	12.8	102
14	Evolution of Bow-Tie Architectures in Biology. PLoS Computational Biology, 2015, 11, e1004055.	3.2	101
15	Simplicity in biology. Nature, 2007, 446, 497-497.	27.8	98
16	Senescent cell turnover slows with age providing an explanation for the Gompertz law. Nature Communications, 2019, 10, 5495.	12.8	94
17	Principles of Cell Circuits for Tissue Repair and Fibrosis. IScience, 2020, 23, 100841.	4.1	90
18	Paradoxical Signaling by a Secreted Molecule Leads to Homeostasis of Cell Levels. Cell, 2014, 158, 1022-1032.	28.9	86

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19	Evolutionary tradeoffs, Pareto optimality and the morphology of ammonite shells. BMC Systems Biology, 2015, 9, 12.	3.0	86
20	Developmental bias in the evolution of phalanges. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18190-18195.	7.1	83
21	A new model for the HPA axis explains dysregulation of stress hormones on the timescale of weeks. Molecular Systems Biology, 2020, 16, e9510.	7.2	74
22	Promoter activity dynamics in the lag phase of Escherichia coli. BMC Systems Biology, 2013, 7, 136.	3.0	72
23	Individuality and Togetherness in Joint Improvised Motion. PLoS ONE, 2014, 9, e87213.	2.5	70
24	Identity domains capture individual differences from across the behavioral repertoire. Nature Neuroscience, 2019, 22, 2023-2028.	14.8	69
25	A Bacterial Growth Law out of Steady State. Cell Reports, 2018, 23, 2891-2900.	6.4	68
26	Dynamical compensation in physiological circuits. Molecular Systems Biology, 2016, 12, 886.	7.2	67
27	The geometry of the <scp>P</scp>areto front in biological phenotype space. Ecology and Evolution, 2013, 3, 1471-1483.	1.9	66
28	Optimal Regulatory Circuit Topologies for Fold-Change Detection. Cell Systems, 2017, 4, 171-181.e8.	6.2	66
29	Geometry of the Gene Expression Space of Individual Cells. PLoS Computational Biology, 2015, 11, e1004224.	3.2	65
30	Hormone seasonality in medical records suggests circannual endocrine circuits. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	55
31	Tumor diversity and the trade-off between universal cancer tasks. Nature Communications, 2019, 10, 5423.	12.8	53
32	How To Choose a Good Scientific Problem. Molecular Cell, 2009, 35, 726-728.	9.7	51
33	Continuum of Gene-Expression Profiles Provides Spatial Division of Labor within a Differentiated Cell Type. Cell Systems, 2019, 8, 43-52.e5.	6.2	51
34	Logarithmic and Power Law Input-Output Relations in Sensory Systems with Fold-Change Detection. PLoS Computational Biology, 2014, 10, e1003781.	3.2	49
35	Prediction of ultra-high-order antibiotic combinations based on pairwise interactions. PLoS Computational Biology, 2019, 15, e1006774.	3.2	49
36	Response to Comment on "Network Motifs: Simple Building Blocks of Complex Networks" and "Superfamilies of Evolved and Designed Networks". Science, 2004, 305, 1107d-1107d.	12.6	45

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37	Senescent cells and the incidence of ageâ€related diseases. Aging Cell, 2021, 20, e13314.	6.7	44
38	Manipulating the Placebo Response in Experimental Pain by Altering Doctorâ€™s Performance Style. Frontiers in Psychology, 2016, 7, 874.	2.1	41
39	Endocytosis as a stabilizing mechanism for tissue homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1926-E1935.	7.1	41
40	The Mass-Longevity Triangle: Pareto Optimality and the Geometry of Life-History Trait Space. PLoS Computational Biology, 2015, 11, e1004524.	3.2	35
41	Correlation profiles and motifs in complex networks. , 2004, , 168-198.		34
42	DEFINED ORDER OF EVOLUTIONARY ADAPTATIONS: EXPERIMENTAL EVIDENCE. Evolution; International Journal of Organic Evolution, 2008, 62, 1547-1554.	2.3	33
43	Prediction of drug cocktail effects when the number of measurements is limited. PLoS Biology, 2017, 15, e2002518.	5.6	32
44	Mutation Rules and the Evolution of Sparseness and Modularity in Biological Systems. PLoS ONE, 2013, 8, e70444.	2.5	29
45	Senescent cell accumulation mechanisms inferred from parabiosis. GeroScience, 2021, 43, 329-341.	4.6	29
46	Biphasic response as a mechanism against mutant takeover in tissue homeostasis circuits. Molecular Systems Biology, 2017, 13, 933.	7.2	28
47	Exit from Synchrony in Joint Improvised Motion. PLoS ONE, 2016, 11, e0160747.	2.5	27
48	Endocrine Autoimmune Disease as a Fragility of Immune Surveillance against Hypersecreting Mutants. Immunity, 2020, 52, 872-884.e5.	14.3	27
49	Dynamic Proteomics of Herpes Simplex Virus Infection. MBio, 2017, 8, .	4.1	25
50	Distinct extracellularâ€“matrix remodeling events precede symptoms of inflammation. Matrix Biology, 2021, 96, 47-68.	3.6	25
51	How to Build a Motivated Research Group. Molecular Cell, 2010, 37, 151-152.	9.7	21
52	Noise Genetics: Inferring Protein Function by Correlating Phenotype with Protein Levels and Localization in Individual Human Cells. PLoS Genetics, 2014, 10, e1004176.	3.5	20
53	An Endogenously Tagged Fluorescent Fusion Protein Library in Mouse Embryonic Stem Cells. Stem Cell Reports, 2017, 9, 1304-1314.	4.8	19
54	Linear Superposition and Prediction of Bacterial Promoter Activity Dynamics in Complex Conditions. PLoS Computational Biology, 2014, 10, e1003602.	3.2	16

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55	Dynamic proteomics reveals bimodal protein dynamics of cancer cells in response to HSP90 inhibitor. BMC Systems Biology, 2017, 11, 33.	3.0	13
56	Evolutionary trade-offs and the structure of polymorphisms. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170105.	4.0	13
57	Noise-precision tradeoff in predicting combinations of mutations and drugs. PLoS Computational Biology, 2019, 15, e1006956.	3.2	13
58	Fold-change Response of Photosynthesis to Step Increases of Light Level. IScience, 2018, 8, 126-137.	4.1	12
59	Programming cells and tissues. Science, 2018, 361, 1199-1200.	12.6	10
60	An opponent process for alcohol addiction based on changes in endocrine gland mass. IScience, 2021, 24, 102127.	4.1	10
61	A reduced-dimensionality approach to uncovering dyadic modes of body motion in conversations. PLoS ONE, 2017, 12, e0170786.	2.5	10
62	Timescales of Human Hair Cortisol Dynamics. IScience, 2020, 23, 101501.	4.1	8
63	Peer power. EMBO Reports, 2018, 19, .	4.5	7
64	Controls for Phylogeny and Robust Analysis in Pareto Task Inference. Molecular Biology and Evolution, 2022, 39, .	8.9	7
65	How To Give a Good Talk. Molecular Cell, 2009, 36, 165-167.	9.7	6
66	Temporal fluctuations in chemotaxis gain implement a simulated-tempering strategy for efficient navigation in complex environments. IScience, 2021, 24, 102796.	4.1	5
67	Understanding Hydrogen-Bond Patterns in Proteins using a Novel Statistical Model. Nature Precedings, 2008, , .	0.1	0
68	Input symmetry invariance, and applications to biological systems. , 2011, , .		0
69	Architecture and Dynamics of Transcriptional Networks. , 0, , 17-30.		0