Johan Paulsson

List of Publications by Year in descending order

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50 papers	8,875 citations	136740 32 h-index	197535 49 g-index
56 all docs	56 docs citations	56 times ranked	7081 citing authors

#	Article	IF	Citations
1	Real-Time Kinetics of Gene Activity in Individual Bacteria. Cell, 2005, 123, 1025-1036.	13.5	1,334
2	Summing up the noise in gene networks. Nature, 2004, 427, 415-418.	13.7	1,143
3	Noise in protein expression scales with natural protein abundance. Nature Genetics, 2006, 38, 636-643.	9.4	769
4	Models of stochastic gene expression. Physics of Life Reviews, 2005, 2, 157-175.	1.5	652
5	Cell-Size Control and Homeostasis in Bacteria. Current Biology, 2015, 25, 385-391.	1.8	632
6	Fundamental limits on the suppression of molecular fluctuations. Nature, 2010, 467, 174-178.	13.7	417
7	Effects of Molecular Memory and Bursting on Fluctuations in Gene Expression. Science, 2008, 319, 339-343.	6.0	365
8	Non-genetic heterogeneity from stochastic partitioning at cell division. Nature Genetics, 2011, 43, 95-100.	9.4	334
9	Segregation of molecules at cell division reveals native protein localization. Nature Methods, 2012, 9, 480-482.	9.0	287
10	Synchronous long-term oscillations in a synthetic gene circuit. Nature, 2016, 538, 514-517.	13.7	266
11	Memory and modularity in cell-fate decision making. Nature, 2013, 503, 481-486.	13.7	230
12	Noise in a minimal regulatory network: plasmid copy number control. Quarterly Reviews of Biophysics, 2001, 34, 1-59.	2.4	204
13	Random partitioning of molecules at cell division. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15004-15009.	3.3	191
14	Random Signal Fluctuations Can Reduce Random Fluctuations in Regulated Components of Chemical Regulatory Networks. Physical Review Letters, 2000, 84, 5447-5450.	2.9	177
15	Stochastic Switching of Cell Fate in Microbes. Annual Review of Microbiology, 2015, 69, 381-403.	2.9	157
16	A universal trade-off between growth and lag in fluctuating environments. Nature, 2020, 584, 470-474.	13.7	139
17	Stochastic activation of a DNA damage response causes cell-to-cell mutation rate variation. Science, 2016, 351, 1094-1097.	6.0	125
18	Multileveled Selection on Plasmid Replication. Genetics, 2002, 161, 1373-1384.	1.2	113

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19	Near-Critical Phenomena in Intracellular Metabolite Pools. Biophysical Journal, 2003, 84, 154-170.	0.2	92
20	Bacterial persisters are a stochastically formed subpopulation of low-energy cells. PLoS Biology, 2021, 19, e3001194.	2.6	85
21	Noise in Gene Regulatory Networks. IEEE Transactions on Automatic Control, 2008, 53, 189-200.	3.6	83
22	Accurate concentration control of mitochondria and nucleoids. Science, 2016, 351, 169-172.	6.0	78
23	Ribosomes are optimized for autocatalytic production. Nature, 2017, 547, 293-297.	13.7	60
24	Microfluidics and single-cell microscopy to study stochastic processes in bacteria. Current Opinion in Microbiology, 2018, 43, 186-192.	2.3	60
25	Tracking bacterial lineages in complex and dynamic environments with applications for growth control and persistence. Nature Microbiology, 2021, 6, 783-791.	5.9	59
26	New quantitative methods for measuring plasmid loss rates reveal unexpected stability. Plasmid, 2013, 70, 353-361.	0.4	57
27	Bacterial variability in the mammalian gut captured by a single-cell synthetic oscillator. Nature Communications, 2019, 10, 4665.	5.8	54
28	Visualization of Periplasmic and Cytoplasmic Proteins with a Self-Labeling Protein Tag. Journal of Bacteriology, 2016, 198, 1035-1043.	1.0	49
29	Constraints on Fluctuations in Sparsely Characterized Biological Systems. Physical Review Letters, 2016, 116, 058101.	2.9	48
30	Mechanical slowing-down of cytoplasmic diffusion allows in vivo counting of proteins in individual cells. Nature Communications, 2016, 7, 11641.	5.8	46
31	Stochastic antagonism between two proteins governs a bacterial cell fate switch. Science, 2019, 366, 116-120.	6.0	44
32	Noise in a phosphorelay drives stochastic entry into sporulation in Bacillus subtilis. EMBO Journal, 2017, 36, 2856-2869.	3.5	42
33	Use of a microfluidic platform to uncover basic features of energy and environmental stress responses in individual cells of Bacillus subtilis. PLoS Genetics, 2017, 13, e1006901.	1.5	42
34	Origin inactivation in bacterial DNA replication control. Molecular Microbiology, 2006, 61, 9-15.	1.2	41
35	Exploiting Natural Fluctuations to Identify Kinetic Mechanisms in Sparsely Characterized Systems. Cell Systems, 2016, 2, 251-259.	2.9	40
36	Isolating live cells after high-throughput, long-term, time-lapse microscopy. Nature Methods, 2020, 17, 93-100.	9.0	40

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37	Random versus Cell Cycle-Regulated Replication Initiation in Bacteria: Insights from Studying Vibrio cholerae Chromosome 2. Microbiology and Molecular Biology Reviews, 2017, 81, .	2.9	26
38	Evaluating quantitative methods for measuring plasmid copy numbers in single cells. Plasmid, 2012, 67, 167-173.	0.4	24
39	Quantification of very low-abundant proteins in bacteria using the HaloTag and epi-fluorescence microscopy. Scientific Reports, 2019, 9, 7902.	1.6	24
40	Single-cell microscopy of suspension cultures using a microfluidics-assisted cell screening platform. Nature Protocols, 2018, 13, 170-194.	5.5	21
41	Handheld Microfluidic Filtration Platform Enables Rapid, Lowâ€Cost, and Robust Selfâ€Testing of SARSâ€CoVâ€2 Virus. Small, 2021, 17, e2104009.	5.2	20
42	Toward a translationally independent RNA-based synthetic oscillator using deactivated CRISPR-Cas. Nucleic Acids Research, 2020, 48, 8165-8177.	6.5	18
43	The processive kinetics of gene conversion in bacteria. Molecular Microbiology, 2017, 104, 752-760.	1.2	15
44	Effect of the CopB Auxiliary Replication Control System on Stability of Maintenance of Par + Plasmid R1. Journal of Bacteriology, 2004, 186, 207-211.	1.0	12
45	Kinetic Uncertainty Relations for the Control of Stochastic Reaction Networks. Physical Review Letters, 2019, 123, 108101.	2.9	11
46	Defiant daughters and coordinated cousins. Nature, 2015, 519, 422-423.	13.7	5
47	On the analysis of noise in gene regulatory networks. , 2007, , .		2
48	A universal control system for synthetic gene networks. Nature, 2019, 570, 452-453.	13.7	1
49	Unsolved Problems of Intracellular Noise. AIP Conference Proceedings, 2003, , .	0.3	0
50	Handheld Microfluidic Filtration Platform Enables Rapid, Lowâ€Cost, and Robust Selfâ€Testing of SARSâ€CoVâ€2 Virus (Small 52/2021). Small, 2021, 17, .	5.2	0