Thierry Emonet

List of Publications by Year
in descending order

62 papers	5,345 citations	109137 35 h-index	123241 61 g-index
81 all docs	81 docs citations	81 times ranked	5015 citing authors

#	Article	IF	Citations
1	Sensing complementary temporal features of odor signals enhances navigation of diverse turbulent plumes. ELife, 2022, 11, .	2.8	14
2	Collective behavior and nongenetic inheritance allow bacterial populations to adapt to changing environments. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	16
3	Non-Genetic Diversity in Chemosensing and Chemotactic Behavior. International Journal of Molecular Sciences, 2021, 22, 6960.	1.8	8
4	A Primed Subpopulation of Bacteria Enables Rapid Expression of the Type 3 Secretion System in Pseudomonas aeruginosa. MBio, 2021, 12, e0083121.	1.8	4
5	Escherichia coli chemotaxis is information limited. Nature Physics, 2021, 17, 1426-1431.	6.5	42
6	Adaptive tuning of cell sensory diversity without changes in gene expression. Science Advances, 2020, 6, .	4.7	21
7	Walking Drosophila navigate complex plumes using stochastic decisions biased by the timing of odor encounters. ELife, 2020, 9, .	2.8	59
8	Controlling and measuring dynamic odorant stimuli in the laboratory. Journal of Experimental Biology, 2019, 222, .	0.8	16
9	A rule from bacteria to balance growth and expansion. Nature, 2019, 575, 602-603.	13.7	9
10	Modulation of flagellar rotation in surface-attached bacteria: A pathway for rapid surface-sensing after flagellar attachment. PLoS Pathogens, 2019, 15, e1008149.	2.1	57
11	Organization of Embryonic Morphogenesis via Mechanical Information. Developmental Cell, 2019, 49, 829-839.e5.	3.1	27
12	Front-end Weber-Fechner gain control enhances the fidelity of combinatorial odor coding. ELife, 2019, 8, .	2.8	15
13	Behavioral Variability and Phenotypic Diversity in Bacterial Chemotaxis. Annual Review of Biophysics, 2018, 47, 595-616.	4.5	54
14	Spatial self-organization resolves conflicts between individuality and collective migration. Nature Communications, 2018, 9, 2177.	5.8	74
15	Patterned Disordered Cell Motion Ensures Vertebral Column Symmetry. Developmental Cell, 2017, 42, 170-180.e5.	3.1	30
16	Cyclic di-GMP differentially tunes a bacterial flagellar motor through a novel class of CheY-like regulators. ELife, 2017, 6, .	2.8	62
17	Phenotypic diversity and temporal variability in a bacterial signaling network revealed by single-cell FRET. ELife, 2017, 6, .	2.8	58
18	Feedback between motion and sensation provides nonlinear boost in run-and-tumble navigation. PLoS Computational Biology, 2017, 13, e1005429.	1.5	36

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19	Olfactory receptor neurons use gain control and complementary kinetics to encode intermittent odorant stimuli. ELife, 2017, 6, .	2.8	80
20	Direct Correlation between Motile Behavior and Protein Abundance in Single Cells. PLoS Computational Biology, 2016, 12, e1005041.	1.5	60
21	Nonâ€genetic diversity modulates population performance. Molecular Systems Biology, 2016, 12, 895.	3.2	59
22	Presynaptic GABA Receptors Mediate Temporal Contrast Enhancement in<i>Drosophila</i>Olfactory Sensory Neurons and Modulate Odor-Driven Behavioral Kinetics. ENeuro, 2016, 3, ENEURO.0080-16.2016.	0.9	21
23	Limits of Feedback Control in Bacterial Chemotaxis. PLoS Computational Biology, 2014, 10, e1003694.	1.5	65
24	Adaptability of non-genetic diversity in bacterial chemotaxis. ELife, 2014, 3, .	2.8	90
25	Regulated tissue fluidity steers zebrafish body elongation. Development (Cambridge), 2013, 140, 573-582.	1.2	116
26	Cell-Fibronectin Interactions Propel Vertebrate Trunk Elongation via Tissue Mechanics. Current Biology, 2013, 23, 1335-1341.	1.8	64
27	Intensity Invariant Dynamics and Odor-Specific Latencies in Olfactory Receptor Neuron Response. Journal of Neuroscience, 2013, 33, 6285-6297.	1.7	122
28	Adaptation Dynamics in Densely Clustered Chemoreceptors. PLoS Computational Biology, 2013, 9, e1003230.	1.5	23
29	Functional diversity among sensory receptors in a <i>Drosophila</i> olfactory circuit. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2134-43.	3.3	105
30	Stochastic coordination of multiple actuators reduces latency and improves chemotactic response in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 805-810.	3.3	54
31	Modeling cellular signaling: taking space into the computation. Nature Methods, 2012, 9, 239-242.	9.0	9
32	The Her7 node modulates the network topology of the zebrafish segmentation clock via sequestration of the Hes6 hub. Development (Cambridge), 2012, 139, 940-947.	1.2	39
33	9.16 Systems Immunology: A Primer for Biophysicists. , 2012, , 389-413.		0
34	Guidelines for visualizing and annotating rule-based models. Molecular BioSystems, 2011, 7, 2779.	2.9	36
35	Highâ€throughput, subpixel precision analysis of bacterial morphogenesis and intracellular spatioâ€temporal dynamics. Molecular Microbiology, 2011, 80, 612-627.	1.2	447
36	Efficient modeling, simulation and coarse-graining of biological complexity with NFsim. Nature Methods, 2011, 8, 177-183.	9.0	271

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37	Thermal Robustness: Lessons from Bacterial Chemotaxis. Current Biology, 2011, 21, R465-R468.	1.8	3
38	Fine-Tuning of Chemotactic Response in E. coli Determined by High-Throughput Capillary Assay. Current Microbiology, 2011, 62, 764-769.	1.0	7
39	Temporal coding of odor mixtures in an olfactory receptor neuron. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5075-5080.	3.3	81
40	Singleâ€cell quantification of ILâ€2 response by effector and regulatory T cells reveals critical plasticity in immune response. Molecular Systems Biology, 2010, 6, 437.	3.2	181
41	Spatial organization of the flow of genetic information in bacteria. Nature, 2010, 466, 77-81.	13.7	334
42	Interdependence of behavioural variability and response to small stimuli in bacteria. Nature, 2010, 468, 819-823.	13.7	67
43	Processivity of peptidoglycan synthesis provides a built-in mechanism for the robustness of straight-rod cell morphology. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10086-10091.	3.3	35
44	RodZ, a component of the bacterial core morphogenic apparatus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1239-1244.	3.3	156
45	Understanding Modularity in Molecular Networks Requires Dynamics. Science Signaling, 2009, 2, pe44.	1.6	82
46	Minimally invasive determination of mRNA concentration in single living bacteria. Nucleic Acids Research, 2008, 36, e73-e73.	6.5	47
47	Relationship between cellular response and behavioral variability in bacterial chemotaxis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 3304-3309.	3.3	119
48	Dynamical Determinants of Drug-Inducible Gene Expression in a Single Bacterium. Biophysical Journal, 2006, 90, 3315-3321.	0.2	20
49	Hidden Stochastic Nature of a Single Bacterial Motor. Physical Review Letters, 2006, 96, 058105.	2.9	69
50	Simulations of magneto-convection in the solar photosphere. Astronomy and Astrophysics, 2005, 429, 335-351.	2.1	576
51	AgentCell: a digital single-cell assay for bacterial chemotaxis. Bioinformatics, 2005, 21, 2714-2721.	1.8	136
52	Real-time RNA profiling within a single bacterium. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9160-9164.	3.3	90
53	From molecular noise to behavioural variability in a single bacterium. Nature, 2004, 428, 574-578.	13.7	405
54	On the Interaction between Convection and Magnetic Fields. Astrophysical Journal, 2003, 588, 1183-1198.	1.6	222

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55	Simulation of Solar Magnetoconvection. Symposium - International Astronomical Union, 2003, 210, 157-167.	0.1	16
56	Polarization of Photospheric Lines from Turbulent Dynamo Simulations. Astrophysical Journal, 2003, 585, 536-552.	1.6	48
57	The Zigzag Path of Buoyant Magnetic Tubes and the Generation of Vorticity along Their Periphery. Astrophysical Journal, 2001, 549, 1212-1220.	1.6	14
58	Magnetoconvection. , 2001, , 173-180.		5
59	Small-Scale Photospheric Fields: Observational Evidence and Numerical Simulations. Astrophysical Journal, 2001, 560, L197-L200.	1.6	57
60	The Physics of Twisted Magnetic Tubes Rising in a Stratified Medium: Twoâ€dimensional Results. Astrophysical Journal, 1998, 492, 804-821.	1.6	147
61	The Rise of Twisted Magnetic Tubes in a Stratified Medium. Astrophysical Journal, 1996, 472, L53-L56.	1.6	124
62	Equilibrium of Twisted Horizontal Magnetic Flux Tubes. Astrophysical Journal, 1996, 458, 783.	1.6	12