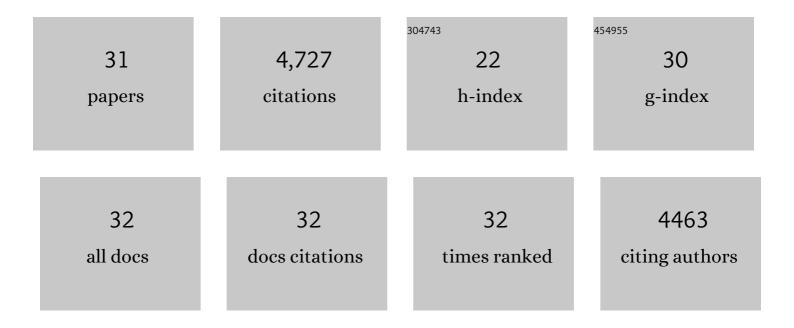
## William Bialek

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6139330/publications.pdf Version: 2024-02-01



WILLIAM RIALEK

#	Article	IF	CITATIONS
1	Are Biological Systems Poised at Criticality?. Journal of Statistical Physics, 2011, 144, 268-302.	1.2	537
2	Statistical mechanics for natural flocks of birds. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4786-4791.	7.1	519
3	Mapping the stereotyped behaviour of freely moving fruit flies. Journal of the Royal Society Interface, 2014, 11, 20140672.	3.4	405
4	Predictability, Complexity, and Learning. Neural Computation, 2001, 13, 2409-2463.	2.2	375
5	Physical limits to biochemical signaling. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10040-10045.	7.1	368
6	Synergy in a Neural Code. Neural Computation, 2000, 12, 1531-1552.	2.2	307
7	A sensory source for motor variation. Nature, 2005, 437, 412-416.	27.8	267
8	Introductory Science and Mathematics Education for 21st-Century Biologists. Science, 2004, 303, 788-790.	12.6	208
9	Searching for Collective Behavior in a Large Network of Sensory Neurons. PLoS Computational Biology, 2014, 10, e1003408.	3.2	190
10	Thermodynamics and signatures of criticality in a network of neurons. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11508-11513.	7.1	169
11	Predictability and hierarchy in <i>Drosophila</i> behavior. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11943-11948.	7.1	160
12	Social interactions dominate speed control in poising natural flocks near criticality. Proceedings of the United States of America, 2014, 111, 7212-7217.	7.1	145
13	The Neural Basis for Combinatorial Coding in a Cortical Population Response. Journal of Neuroscience, 2008, 28, 13522-13531.	3.6	132
14	Optimal Decoding of Cellular Identities in a Genetic Network. Cell, 2019, 176, 844-855.e15.	28.9	132
15	Time Course of Information about Motion Direction in Visual Area MT of Macaque Monkeys. Journal of Neuroscience, 2004, 24, 3210-3222.	3.6	130
16	Information Processing in Living Systems. Annual Review of Condensed Matter Physics, 2016, 7, 89-117.	14.5	116
17	Collective Behavior of Place and Non-place Neurons in the Hippocampal Network. Neuron, 2017, 96, 1178-1191.e4.	8.1	107
18	The simplest maximum entropy model for collective behavior in a neural network. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P03011.	2.3	89

WILLIAM BIALEK

#	Article	IF	CITATIONS
19	Cooperativity, Sensitivity, and Noise in Biochemical Signaling. Physical Review Letters, 2008, 100, 258101.	7.8	76
20	Coarse Graining, Fixed Points, and Scaling in a Large Population of Neurons. Physical Review Letters, 2019, 123, 178103.	7.8	61
21	Efficient representation as a design principle for neural coding and computation. , 2006, , .		46
22	Statistical Mechanics of the US Supreme Court. Journal of Statistical Physics, 2015, 160, 275-301.	1.2	41
23	Searching for collective behavior in a small brain. Physical Review E, 2019, 99, 052418.	2.1	34
24	Perspectives on theory at the interface of physics and biology. Reports on Progress in Physics, 2018, 81, 012601.	20.1	30
25	On the dimensionality of behavior. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2021860119.	7.1	25
26	The Neural Code for Motor Control in the Cerebellum and Oculomotor Brainstem. ENeuro, 2014, 1, ENEURO.0004-14.2014.	1.9	17
27	Inverse Spin Glass and Related Maximum Entropy Problems. Physical Review Letters, 2014, 113, 117204.	7.8	13
28	Trading bits in the readout from a genetic network. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	11
29	Entropic effects in a nonequilibrium system: Flocks of birds. Physical Review E, 2016, 93, 052416.	2.1	7
30	Extending the dynamic range of transcription factor action by translational regulation. Physical Review E, 2016, 93, 022404.	2.1	6
31	Optimal Local Estimates of Visual Motion in a Natural Environment. Physical Review Letters, 2021, 126, 018101.	7.8	2