JosÃ© M G Vilar

List of Publications by Year
in descending order

62	4,336	218677	123424
papers	citations	26 h-index	61 g-index

66	66	66	4894
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanisms of noise-resistance in genetic oscillators. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5988-5992.	7.1	518
2	Critical assessment of automated flow cytometry data analysis techniques. Nature Methods, 2013, 10, 228-238.	19.0	509
3	Synthetic cooperation in engineered yeast populations. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1877-1882.	7.1	419
4	From molecular noise to behavioural variability in a single bacterium. Nature, 2004, 428, 574-578.	27.8	405
5	The Mesoscopic Dynamics of Thermodynamic Systems. Journal of Physical Chemistry B, 2005, 109, 21502-21515.	2.6	196
6	Modeling network dynamics. Journal of Cell Biology, 2003, 161, 471-476.	5.2	195
7	Predicting human olfactory perception from chemical features of odor molecules. Science, 2017, 355, 820-826.	12.6	194
8	DNA Looping and Physical Constraints on Transcription Regulation. Journal of Molecular Biology, 2003, 331, 981-989.	4.2	173
9	Stochastic Multiresonance. Physical Review Letters, 1997, 78, 2882-2885.	7.8	130
10	DNA looping in gene regulation: from the assembly of macromolecular complexes to the control of transcriptional noise. Current Opinion in Genetics and Development, 2005, 15, 136-144.	3.3	129
11	Thermodynamics "beyond" local equilibrium. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 11081-11084.	7.1	122
12	Signal Processing in the TGF-Î² Superfamily Ligand-Receptor Network. PLoS Computational Biology, 2006, 2, e3.	3.2	113
13	Spatiotemporal Stochastic Resonance in the Swift-Hohenberg Equation. Physical Review Letters, 1997, 78, 2886-2889.	7.8	111
14	Divergent Signal-to-Noise Ratio and Stochastic Resonance in Monostable Systems. Physical Review Letters, 1996, 77, 2863-2866.	7.8	108
15	Effects of Noise in Symmetric Two-Species Competition. Physical Review Letters, 1998, 80, 4099-4102.	7.8	85
16	DNA looping: the consequences and its control. Current Opinion in Structural Biology, 2006, 16, 344-350.	5.7	79
17	Noise Suppression by Noise. Physical Review Letters, 2001, 86, 950-953.	7.8	65
18	Failure of the Work-Hamiltonian Connection for Free-Energy Calculations. Physical Review Letters, 2008, 100, 020601.	7.8	65

#	Article	IF	Citations
19	Inferring the in vivo looping properties of DNA. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17642-17645.	7.1	54
20	Stochastic dynamics of macromolecularâ€assembly networks. Molecular Systems Biology, 2006, 2, 2006.0024.	7.2	47
21	Stochastic Resonance in Noisy Nondynamical Systems. Physical Review Letters, 1998, 81, 14-17.	7.8	44
22	Ab initio thermodynamic modeling of distal multisite transcription regulation. Nucleic Acids Research, 2007, 36, 726-731.	14.5	38
23	CplexA: a Mathematica package to study macromolecular-assembly control of gene expression. Bioinformatics, 2010, 26, 2060-2061.	4.1	37
24	Communication: System-size scaling of Boltzmann and alternate Gibbs entropies. Journal of Chemical Physics, 2014, 140, 201101.	3.0	36
25	Reliable Prediction of Complex Phenotypes from a Modular Design in Free Energy Space: An Extensive Exploration of thelacOperon. ACS Synthetic Biology, 2013, 2, 576-586.	3.8	31
26	On the origin of plankton patchiness. Physica A: Statistical Mechanics and Its Applications, 2003, 317, 239-246.	2.6	29
27	A Crowdsourcing Approach to Developing and Assessing Prediction Algorithms for AML Prognosis. PLoS Computational Biology, 2016, 12, e1004890.	3.2	28
28	Multilevel Deconstruction of the In Vivo Behavior of Looped DNA-Protein Complexes. PLoS ONE, 2007, 2, e355.	2.5	27
29	Multiprotein DNA Looping. Physical Review Letters, 2006, 96, 238103.	7.8	26
30	Systems Biophysics of Gene Expression. Biophysical Journal, 2013, 104, 2574-2585.	0.5	26
31	Accurate Prediction of Gene Expression by Integration of DNA Sequence Statistics with Detailed Modeling of Transcription Regulation. Biophysical Journal, 2010, 99, 2408-2413.	0.5	25
32	Optimal Resting-Growth Strategies of Microbial Populations in Fluctuating Environments. PLoS ONE, 2011, 6, e18622.	2.5	21
33	Scaling concepts in periodically modulated noisy systems. Physica A: Statistical Mechanics and Its Applications, 1999, 264, 1-14.	2.6	17
34	Vilar and Rubi Reply:. Physical Review Letters, 2008, 101, .	7.8	16
35	Regulation of Human Hsc70 ATPase and Chaperone Activities by Apg2: Role of the Acidic Subdomain. Journal of Molecular Biology, 2019, 431, 444-461.	4.2	16
36	Control of gene expression by modulated self-assembly. Nucleic Acids Research, 2011, 39, 6854-6863.	14.5	15

#	Article	IF	Citations
37	All-or-none amyloid disassembly via chaperone-triggered fibril unzipping favors clearance of Î±-synuclein toxic species. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
38	Trafficking Coordinate Description of Intracellular Transport Control of Signaling Networks. Biophysical Journal, 2011, 101, 2315-2323.	0.5	13
39	Determinants of population responses to environmental fluctuations. Scientific Reports, 2018, 8, 887.	3.3	13
40	A mesoscopic approach to the â€œnegativeâ€•viscosity effect in ferrofluids. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 403-412.	2.6	12
41	Proteinâ€“protein/DNA interaction networks: versatile macromolecular structures for the control of gene expression. IET Systems Biology, 2008, 2, 247-255.	1.5	12
42	Vilar and Rubi Reply:. Physical Review Letters, 2008, 101, .	7.8	12
43	Stochastic resonance in a dipole. Physical Review E, 1996, 54, 6929-6932.	2.1	11
44	Ordering periodic spatial structures by non-equilibrium fluctuations. Physica A: Statistical Mechanics and Its Applications, 2000, 277, 327-334.	2.6	11
45	Suppression and enhancement of transcriptional noise by DNA looping. Physical Review E, 2014, 89, 062703.	2.1	11
46	The rheology of field-responsive suspensions. Journal of Physics Condensed Matter, 2000, 12, A75-A84.	1.8	8
47	Modularizing gene regulation. Molecular Systems Biology, 2006, 2, 2006.0016.	7.2	7
48	Stochastic population dynamics in turbulent fields. European Physical Journal: Special Topics, 2007, 146, 177-187.	2.6	7
49	Entropy of Leukemia on Multidimensional Morphological and Molecular Landscapes. Physical Review X, 2014, 4, .	8.9	7
50	Noise and periodic modulations in neural excitable media. Physical Review E, 1999, 59, 5920-5927.	2.1	6
51	Clearly Detectable, Kinetically Restricted Solidâ€“Solid Phase Transition in cis-Ceramide Monolayers. Langmuir, 2018, 34, 11749-11758.	3.5	6
52	Reliably quantifying the evolving worldwide dynamic state of the COVID-19 outbreak from death records, clinical parametrization, and demographic data. Scientific Reports, 2021, 11, 19952.	3.3	6
53	Ascertaining the initiation of epidemic resurgences: an application to the COVID-19 second surges in Europe and the Northeast United States. Royal Society Open Science, 2021, 8, 210773.	2.4	6
54	Work-Hamiltonian connection for anisoparametric processes in manipulated microsystems. Journal of Non-Equilibrium Thermodynamics, 2011, 36, .	4.2	5

#	Article	IF	Citations
55	Effect of the output of the system in signal detection. Physical Review E, 1997, 56, R32-R35.	2.1	4
56	Noisy-threshold control of cell death. BMC Systems Biology, 2010, 4, 152.	3.0	4
57	Extraction and Refolding Determinants of Chaperone-Driven Aggregated Protein Reactivation. Journal of Molecular Biology, 2020, 432, 3239-3250.	4.2	3
58	On cellular automata models for quantum systems. Journal of Physics A, 1996, 29, 8169-8171.	1.6	1
59	Field-induced force-suppression in ferromagnetic colloids. Physica A: Statistical Mechanics and Its Applications, 2001, 293, 51-58.	2.6	1
60	Far-from-equilibrium processes without net thermal exchange via energy sorting. Journal of Chemical Physics, 2012, 136, 064115.	3.0	1
61	Computing at the Front-End by Receptor Networks. Cell Systems, 2017, 5, 316-318.	6.2	1
62	Signal processing in the TGF-Î² superfamily ligand-receptor network. PLoS Computational Biology, 2005, preprint, e3.	3.2	0