John J Tyson

List of Publications by Year
in descending order

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251	17,444	19636 61	17090 122
papers	citations	h-index	g-index

273	273	273	11937
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sniffers, buzzers, toggles and blinkers: dynamics of regulatory and signaling pathways in the cell. Current Opinion in Cell Biology, 2003, 15, 221-231.	2.6	1,423
2	Design principles of biochemical oscillators. Nature Reviews Molecular Cell Biology, 2008, 9, 981-991.	16.1	970
3	Singular perturbation theory of traveling waves in excitable media (a review). Physica D: Nonlinear Phenomena, 1988, 32, 327-361.	1.3	678
4	Integrative Analysis of Cell Cycle Control in Budding Yeast. Molecular Biology of the Cell, 2004, 15, 3841-3862.	0.9	584
5	Hysteresis drives cell-cycle transitions in Xenopus laevis egg extracts. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 975-980.	3.3	506
6	Network dynamics and cell physiology. Nature Reviews Molecular Cell Biology, 2001, 2, 908-916.	16.1	481
7	Target patterns in a realistic model of the Belousovâ€“Zhabotinskii reaction. Journal of Chemical Physics, 1980, 73, 2224-2237.	1.2	439
8	Kinetic Analysis of a Molecular Model of the Budding Yeast Cell Cycle. Molecular Biology of the Cell, 2000, 11, 369-391.	0.9	437
9	Modeling the cell division cycle: cdc2 and cyclin interactions.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 7328-7332.	3.3	397
10	Regulation of the Eukaryotic Cell Cycle: Molecular Antagonism, Hysteresis, and Irreversible Transitions. Journal of Theoretical Biology, 2001, 210, 249-263.	0.8	328
11	Spiral waves in the Belousov-Zhabotinskii reaction. Physica D: Nonlinear Phenomena, 1986, 21, 307-324.	1.3	302
12	Endocrine resistance in breast cancer â€“ An overview and update. Molecular and Cellular Endocrinology, 2015, 418, 220-234.	1.6	280
13	The dynamics of cell cycle regulation. BioEssays, 2002, 24, 1095-1109.	1.2	277
14	A model for restriction point control of the mammalian cell cycle. Journal of Theoretical Biology, 2004, 230, 563-579.	0.8	272
15	Functional Motifs in Biochemical Reaction Networks. Annual Review of Physical Chemistry, 2010, 61, 219-240.	4.8	257
16	A cellular automation model of excitable media including curvature and dispersion. Science, 1990, 247, 1563-1566.	6.0	256
17	Analysis of a Generic Model of Eukaryotic Cell-Cycle Regulation. Biophysical Journal, 2006, 90, 4361-4379.	0.2	226
18	Steady States and Oscillations in the p53/Mdm2 Network. Cell Cycle, 2005, 4, 488-493.	1.3	221

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19	Some further studies of nonlinear oscillations in chemical systems. Journal of Chemical Physics, 1973, 58, 3919-3930.	1.2	192
20	The Dynamics of Feedback Control Circuits in Biochemical Pathways. , 1978, , 1-62.		187
21	Endoplasmic Reticulum Stress, the Unfolded Protein Response, Autophagy, and the Integrated Regulation of Breast Cancer Cell Fate. Cancer Research, 2012, 72, 1321-1331.	0.4	183
22	Dynamic modelling of oestrogen signalling and cell fate in breast cancer cells. Nature Reviews Cancer, 2011, 11, 523-532.	12.8	179
23	Irreversible cell-cycle transitions are due to systems-level feedback. Nature Cell Biology, 2007, 9, 724-728.	4.6	178
24	A Simple Model of Circadian Rhythms Based on Dimerization and Proteolysis of PER and TIM. Biophysical Journal, 1999, 77, 2411-2417.	0.2	168
25	Modeling the control of DNA replication in fission yeast. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 9147-9152.	3.3	165
26	Temporal Organization of the Cell Cycle. Current Biology, 2008, 18, R759-R768.	1.8	165
27	The Dynamics of Scroll Waves in Excitable Media. SIAM Review, 1992, 34, 1-39.	4.2	147
28	Modeling Networks of Coupled Enzymatic Reactions Using the Total Quasi-Steady State Approximation. PLoS Computational Biology, 2007, 3, e45.	1.5	147
29	Mathematical model of the cell division cycle of fission yeast. Chaos, 2001, 11, 277.	1.0	144
30	Modeling the Cell Division Cycle: M-phase Trigger, Oscillations, and Size Control. Journal of Theoretical Biology, 1993, 165, 101-134.	0.8	142
31	Exploring the roles of noise in the eukaryotic cell cycle. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6471-6476.	3.3	140
32	Existence of periodic solutions for negative feedback cellular control systems. Journal of Differential Equations, 1977, 25, 39-64.	1.1	136
33	Properties of twoâ€component bimolecular and trimolecular chemical reaction systems. Journal of Chemical Physics, 1973, 59, 4164-4173.	1.2	134
34	Bifurcation Analysis of a Model of Mitotic Control in Frog Eggs. Journal of Theoretical Biology, 1998, 195, 69-85.	0.8	122
35	Spiral waves of cyclic amp in a model of slime mold aggregation. Physica D: Nonlinear Phenomena, 1989, 34, 193-207.	1.3	121
36	Mathematical model of the fission yeast cell cycle with checkpoint controls at the G1/S, G2/M and metaphase/anaphase transitions. Biophysical Chemistry, 1998, 72, 185-200.	1.5	121

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37	Exploring Mechanisms of the DNA-Damage Response: p53 Pulses and their Possible Relevance to Apoptosis. Cell Cycle, 2007, 6, 85-94.	1.3	121
38	A cellular automaton model of excitable media. Physica D: Nonlinear Phenomena, 1990, 46, 392-415.	1.3	118
39	Modeling the fission yeast cell cycle: Quantized cycle times in wee1- cdc25Delta mutant cells. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 7865-7870.	3.3	117
40	Control of mitosis by a continuous biochemical oscillation: Synchronization; spatially inhomogeneous oscillations. Journal of Mathematical Biology, 1975, 1, 289-310.	0.8	111
41	Classification of instabilities in chemical reaction systems. Journal of Chemical Physics, 1975, 62, 1010-1015.	1.2	110
42	Biological switches and clocks. Journal of the Royal Society Interface, 2008, 5, S1-8.	1.5	101
43	A model of yeast cellâ€cycle regulation based on multisite phosphorylation. Molecular Systems Biology, 2010, 6, 405.	3.2	97
44	Quantitative analysis of a molecular model of mitotic control in fission yeast. Journal of Theoretical Biology, 1995, 173, 283-305.	0.8	93
45	Dispersion of traveling waves in the belousov-zhabotinskii reaction. Physica D: Nonlinear Phenomena, 1988, 30, 177-191.	1.3	92
46	Chemical kinetic theory: understanding cell-cycle regulation. Trends in Biochemical Sciences, 1996, 21, 89-96.	3.7	92
47	Analytic representation of oscillations, excitability, and traveling waves in a realistic model of the Belousovâ€"Zhabotinskii reaction. Journal of Chemical Physics, 1977, 66, 905-915.	1.2	88
48	The<i>Physarum polycephalum</i>Genome Reveals Extensive Use of Prokaryotic Two-Component and Metazoan-Type Tyrosine Kinase Signaling. Genome Biology and Evolution, 2016, 8, 109-125.	1.1	87
49	Computational Analysis of Dynamical Responses to the Intrinsic Pathway of Programmed Cell Death. Biophysical Journal, 2009, 97, 415-434.	0.2	86
50	A Hybrid Model of Mammalian Cell Cycle Regulation. PLoS Computational Biology, 2011, 7, e1001077.	1.5	83
51	Model-driven experimental approach reveals the complex regulatory distribution of p53 by the circadian factor Period 2. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13516-13521.	3.3	81
52	On the existence of oscillatory solutions in negative feedback cellular control processes. Journal of Mathematical Biology, 1975, 1, 311-315.	0.8	80
53	OSCILLATIONS, BISTABILITY, AND ECHO WAVES IN MODELS OF THE BELOUSOV-ZHABOTINSKII REACTION*. Annals of the New York Academy of Sciences, 1979, 316, 279-295.	1.8	80
54	Mathematical model of the morphogenesis checkpoint in budding yeast. Journal of Cell Biology, 2003, 163, 1243-1254.	2.3	78

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55	Mathematical modeling as a tool for investigating cell cycle control networks. Methods, 2007, 41, 238-247.	1.9	77
56	Scaling and reducing the Field-Koros-Noyes mechanism of the Belousov-Zhabotinskii reaction. The Journal of Physical Chemistry, 1982, 86, 3006-3012.	2.9	76
57	A Mathematical Model for the Reciprocal Differentiation of T Helper 17 Cells and Induced Regulatory T Cells. PLoS Computational Biology, 2011, 7, e1002122.	1.5	76
58	Bistability by multiple phosphorylation of regulatory proteins. Progress in Biophysics and Molecular Biology, 2009, 100, 47-56.	1.4	74
59	Sloppy size control of the cell division cycle. Journal of Theoretical Biology, 1986, 118, 405-426.	0.8	73
60	Control of nuclear division in Physarum polycephalum. Experimental Cell Research, 1979, 119, 87-98.	1.2	70
61	Dynamic Modeling of the Interaction Between Autophagy and Apoptosis in Mammalian Cells. CPT: Pharmacometrics and Systems Pharmacology, 2015, 4, 263-272.	1.3	67
62	Antagonism and bistability in protein interaction networks. Journal of Theoretical Biology, 2008, 250, 209-218.	0.8	66
63	From START to FINISH: computational analysis of cell cycle control in budding yeast. Npj Systems Biology and Applications, 2015, 1, 15016.	1.4	66
64	Modelling the controls of the eukaryotic cell cycle. Biochemical Society Transactions, 2003, 31, 1526-1529.	1.6	65
65	Luther's 1906 discovery and analysis of chemical waves. Journal of Chemical Education, 1987, 64, 742.	1.1	64
66	Cell growth and division: a deterministic/probabilistic model of the cell cycle. Journal of Mathematical Biology, 1986, 23, 231-246.	0.8	63
67	Diffusion and wave propagation in cellular automaton models of excitable media. Physica D: Nonlinear Phenomena, 1992, 55, 309-327.	1.3	63
68	Molecular mechanisms creating bistable switches at cell cycle transitions. Open Biology, 2013, 3, 120179.	1.5	62
69	Models in biology: lessons from modeling regulation of the eukaryotic cell cycle. BMC Biology, 2015, 13, 46.	1.7	61
70	Modeling M-phase control in Xenopus oocyte extracts: the surveillance mechanism for unreplicated DNA. Biophysical Chemistry, 1998, 72, 169-184.	1.5	57
71	A proposal for robust temperature compensation of circadian rhythms. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1195-1200.	3.3	57
72	A stochastic, molecular model of the fission yeast cell cycle: role of the nucleocytoplasmic ratio in cycle time regulation. Biophysical Chemistry, 2001, 92, 1-15.	1.5	56

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73	System-level feedbacks make the anaphase switch irreversible. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10016-10021.	3.3	55
74	Bifurcation analysis of a model of the budding yeast cell cycle. Chaos, 2004, 14, 653-661.	1.0	54
75	Regulated protein kinases and phosphatases in cell cycle decisions. Current Opinion in Cell Biology, 2010, 22, 801-808.	2.6	54
76	On Traveling Wave Solutions of Fisher's Equation in Two Spatial Dimensions. SIAM Journal on Applied Mathematics, 2000, 60, 371-391.	0.8	53
77	Stochastic Simulation of Enzyme-Catalyzed Reactions with Disparate Timescales. Biophysical Journal, 2008, 95, 3563-3574.	0.2	53
78	A Dynamical Paradigm for Molecular Cell Biology. Trends in Cell Biology, 2020, 30, 504-515.	3.6	53
79	A Quantitative Study of the Division Cycle of Caulobacter crescentus Stalked Cells. PLoS Computational Biology, 2008, 4, e9.	1.5	51
80	Network Topologies and Dynamics Leading to Endotoxin Tolerance and Priming in Innate Immune Cells. PLoS Computational Biology, 2012, 8, e1002526.	1.5	51
81	Finishing the Cell Cycle. Journal of Theoretical Biology, 1999, 199, 223-233.	0.8	50
82	The coordination of cell growth and division ? intentional or Incidental?. BioEssays, 1985, 2, 72-77.	1.2	49
83	Endoplasmic reticulum stress, the unfolded protein response, and gene network modeling in antiestrogen resistant breast cancer. Hormone Molecular Biology and Clinical Investigation, 2011, 5, 35-44.	0.3	49
84	A simple theoretical framework for understanding heterogeneous differentiation of CD4+ T cells. BMC Systems Biology, 2012, 6, 66.	3.0	49
85	Cell Cycle Control by a Minimal Cdk Network. PLoS Computational Biology, 2015, 11, e1004056.	1.5	49
86	The distributions of cell size and generation time in a model of the cell cycle incorporating size control and random transitions. Journal of Theoretical Biology, 1985, 113, 29-62.	0.8	47
87	The Motion of Untwisted Untorted Scroll Waves in Belousov-Zhabotinsky Reagent. Science, 1988, 239, 1284-1286.	6.0	47
88	Size control of cell division. Journal of Theoretical Biology, 1987, 126, 381-391.	0.8	46
89	Bringing cartoons to life. Nature, 2007, 445, 823-823.	13.7	45
90	Dilution and titration of cell-cycle regulators may control cell size in budding yeast. PLoS Computational Biology, 2018, 14, e1006548.	1.5	45

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91	Misuse of the Michaelisâ€"Menten rate law for protein interaction networks and its remedy. PLoS Computational Biology, 2020, 16, e1008258.	1.5	45
92	Experimental study of the chemical waves in the cerium-catalyzed Belousov-Zhabotinskii reaction. 1. Velocity of trigger waves. The Journal of Physical Chemistry, 1989, 93, 707-713.	2.9	44
93	Cell cycle regulation by feedâ€forward loops coupling transcription and phosphorylation. Molecular Systems Biology, 2009, 5, 236.	3.2	44
94	Spiral waves in a model of myocardium. Physica D: Nonlinear Phenomena, 1987, 29, 215-222.	1.3	43
95	Another turn for p53. Molecular Systems Biology, 2006, 2, 2006.0032.	3.2	43
96	A Stochastic Model of the Yeast Cell Cycle Reveals Roles for Feedback Regulation in Limiting Cellular Variability. PLoS Computational Biology, 2016, 12, e1005230.	1.5	42
97	Dynamical modeling of syncytial mitotic cycles in <i>Drosophila</i> embryos. Molecular Systems Biology, 2007, 3, 131.	3.2	41
98	Periodic enzyme synthesis and oscillatory repression: Why is the period of oscillation close to the cell cycle time?. Journal of Theoretical Biology, 1983, 103, 313-328.	0.8	40
99	A cellular automaton model of excitable media. Physica D: Nonlinear Phenomena, 1990, 46, 416-426.	1.3	39
100	Parameter Estimation for a Mathematical Model of the Cell Cycle in Frog Eggs. Journal of Computational Biology, 2005, 12, 48-63.	0.8	38
101	Systemâ€level feedbacks control cell cycle progression. FEBS Letters, 2009, 583, 3992-3998.	1.3	38
102	Monitoring p53's pulse. Nature Genetics, 2004, 36, 113-114.	9.4	37
103	Modelling the fission yeast cell cycle. Briefings in Functional Genomics & Proteomics, 2004, 2, 298-307.	3.8	36
104	Modeling the dynamic behavior of biochemical regulatory networks. Journal of Theoretical Biology, 2019, 462, 514-527.	0.8	35
105	What Everyone Should Know About the Belousov-Zhabotinsky Reaction. Lecture Notes in Biomathematics, 1994, , 569-587.	0.3	35
106	Experimental study of the chemical waves in the cerium-catalyzed Belousov-Zhabotinskii reaction. 2. Concentration profiles. The Journal of Physical Chemistry, 1989, 93, 2760-2764.	2.9	34
107	The JigCell Model Builder and Run Manager. Bioinformatics, 2004, 20, 3680-3681.	1.8	33
108	Is nuclear division in Physarum controlled by a continuous limit cycle oscillator?. Journal of Theoretical Biology, 1978, 73, 723-738.	0.8	32

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109	A kinetic hairpin transfer model for parvoviral DNA replication. Journal of Molecular Biology, 1989, 208, 283-296.	2.0	31
110	THE DIFFERENTIAL GEOMETRY OF SCROLL WAVES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1991, 01, 723-744.	0.7	31
111	Third generation cellular automaton for modeling excitable media. Physica D: Nonlinear Phenomena, 1992, 55, 328-339.	1.3	31
112	A Proposal for Temperature Compensation of the Orcadian Rhythm in Drosophila Based on Dimerization of the Per Protein. Chronobiology International, 1997, 14, 521-529.	0.9	31
113	Spatial controls for growth zone formation during the fission yeast cell cycle. Yeast, 2008, 25, 59-69.	0.8	31
114	Hybrid modeling and simulation of stochastic effects on progression through the eukaryotic cell cycle. Journal of Chemical Physics, 2012, 136, 034105.	1.2	31
115	Control of cell growth, division and death: information processing in living cells. Interface Focus, 2014, 4, 20130070.	1.5	31
116	Temporal Controls of the Asymmetric Cell Division Cycle in Caulobacter crescentus. PLoS Computational Biology, 2009, 5, e1000463.	1.5	30
117	Mathematical models of the transitions between endocrine therapy responsive and resistant states in breast cancer. Journal of the Royal Society Interface, 2014, 11, 20140206.	1.5	30
118	Stability of the steady-state size distribution in a model of cell growth and division. Journal of Mathematical Biology, 1985, 22, 293-301.	0.8	29
119	Checkpoints in the cell cycle from a modelerâ€™s perspective. , 1995, 1, 1-8.		29
120	Steady-State Size Distributions in Probabilistic Models of the Cell Division Cycle. SIAM Journal on Applied Mathematics, 1985, 45, 523-540.	0.8	28
121	Models of cell cycle control in eukaryotes. Journal of Biotechnology, 1999, 71, 239-244.	1.9	28
122	The Interleukin-1 Receptor-Associated Kinase M Selectively Inhibits the Alternative, Instead of the Classical NFÎºB Pathway. Journal of Innate Immunity, 2009, 1, 164-174.	1.8	28
123	Modeling the septation initiation network (SIN) in fission yeast cells. Current Genetics, 2007, 51, 245-255.	0.8	27
124	Cell Cycle Control in Bacteria and Yeast: A Case of Convergent Evolution?. Cell Cycle, 2006, 5, 522-529.	1.3	26
125	Stochastic exit from mitosis in budding yeast. Cell Cycle, 2011, 10, 999-1009.	1.3	26
126	Modelling the effect of GRP78 on anti-oestrogen sensitivity and resistance in breast cancer. Interface Focus, 2013, 3, 20130012.	1.5	26

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127	Semiclassical studies of planar reactive H+H2. Journal of Chemical Physics, 1973, 59, 363-368.	1.2	25
128	A kinetic model of the cyclin E/Cdk2 developmental timer in Xenopus laevis embryos. Biophysical Chemistry, 2003, 104, 573-589.	1.5	25
129	Deterministic parallel global parameter estimation for a model of the budding yeast cell cycle. Journal of Global Optimization, 2008, 40, 719-738.	1.1	25
130	Experimental testing of a new integrated model of the budding yeast S<scp>tart</scp>transition. Molecular Biology of the Cell, 2015, 26, 3966-3984.	0.9	25
131	A Model of Yeast Cell-Cycle Regulation Based on a Standard Component Modeling Strategy for Protein Regulatory Networks. PLoS ONE, 2016, 11, e0153738.	1.1	25
132	Modeling the estrogen receptor to growth factor receptor signaling switch in human breast cancer cells. FEBS Letters, 2013, 587, 3327-3334.	1.3	24
133	Periodic enzyme synthesis: Reconsideration of the theory of oscillatory repression. Journal of Theoretical Biology, 1979, 80, 27-38.	0.8	23
134	Mathematical Model for Early Development of the Sea Urchin Embryo. Bulletin of Mathematical Biology, 2000, 62, 37-59.	0.9	23
135	Synchronization of Eukaryotic Cells by Periodic Forcing. Physical Review Letters, 2006, 96, 148102.	2.9	23
136	Oscillatory Dynamics of Cell Cycle Proteins in Single Yeast Cells Analyzed by Imaging Cytometry. PLoS ONE, 2011, 6, e26272.	1.1	23
137	Optimization and model reduction in the high dimensional parameter space of a budding yeast cell cycle model. BMC Systems Biology, 2013, 7, 53.	3.0	23
138	GraphSpace: stimulating interdisciplinary collaborations in network biology. Bioinformatics, 2017, 33, 3134-3136.	1.8	23
139	Ectopic Activation of the Spindle Assembly Checkpoint Signaling Cascade Reveals Its Biochemical Design. Current Biology, 2019, 29, 104-119.e10.	1.8	23
140	Computer analysis of two-dimensional gels by a general image processing system. Electrophoresis, 1986, 7, 107-113.	1.3	22
141	Cycling without the Cyclosome: Modeling a Yeast Strain Lacking the APC. Cell Cycle, 2004, 3, 627-631.	1.3	21
142	The JigCell Model Builder: A Spreadsheet Interface for Creating Biochemical Reaction Network Models. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2006, 3, 155-164.	1.9	21
143	A Mathematical Framework for Understanding Four-Dimensional Heterogeneous Differentiation of $$hbox {CD4}^{+}$$ CD4 + T Cells. Bulletin of Mathematical Biology, 2015, 77, 1046-1064.	0.9	21
144	Mechanisms of signalling-memory governing progression through the eukaryotic cell cycle. Current Opinion in Cell Biology, 2021, 69, 7-16.	2.6	21

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145	Unstable activator models for size control of the cell cycle. Journal of Theoretical Biology, 1983, 104, 617-631.	0.8	20
146	Effects of asymmetric division on a stochastic model of the cell division cycle. Mathematical Biosciences, 1989, 96, 165-184.	0.9	20
147	Relaxation oscillations in the revised Oregonator. Journal of Chemical Physics, 1984, 80, 6079-6082.	1.2	19
148	Measurement and modeling of transcriptional noise in the cell cycle regulatory network. Cell Cycle, 2013, 12, 3392-3407.	1.3	18
149	A stochastic model of cell division (with application to fission yeast). Mathematical Biosciences, 1987, 84, 159-187.	0.9	17
150	Helical and circular scroll wave filaments. Physica D: Nonlinear Phenomena, 1990, 44, 191-202.	1.3	17
151	Mathematical Analysis of Cytokine-Induced Differentiation of Granulocyte-Monocyte Progenitor Cells. Frontiers in Immunology, 2018, 9, 2048.	2.2	17
152	Propagation of waves through a line of discontinuity in two-dimensional excitable media: Refraction and reflection of autowaves. Physical Review E, 1996, 54, 1958-1968.	0.8	16
153	Computing with Proteins. Computer, 2009, 42, 47-56.	1.2	16
154	Potential Role of a Bistable Histidine Kinase Switch in the Asymmetric Division Cycle of Caulobacter crescentus. PLoS Computational Biology, 2013, 9, e1003221.	1.5	16
155	Cell-cycle transitions: a common role for stoichiometric inhibitors. Molecular Biology of the Cell, 2017, 28, 3437-3446.	0.9	16
156	A Single Light-Responsive Sizer Can Control Multiple-Fission Cycles in Chlamydomonas. Current Biology, 2020, 30, 634-644.e7.	1.8	16
157	Experimental study of spiral waves in the cerium-catalyzed Belousov-Zhabotinskii reaction. The Journal of Physical Chemistry, 1990, 94, 8677-8682.	2.9	15
158	A cellular automaton model of excitable media IV. Untwisted scroll rings. Physica D: Nonlinear Phenomena, 1991, 50, 189-206.	1.3	15
159	The dynamics of helical scroll waves in excitable media. Physica D: Nonlinear Phenomena, 1991, 53, 151-161.	1.3	15
160	Dynamical Localization of DivL and PleC in the Asymmetric Division Cycle of Caulobacter crescentus: A Theoretical Investigation of Alternative Models. PLoS Computational Biology, 2015, 11, e1004348.	1.5	15
161	Reverse Engineering Models of Cell Cycle Regulation. Advances in Experimental Medicine and Biology, 2008, 641, 88-97.	0.8	15
162	Periodic Phenomena in Physarum. , 1982, , 61-110.		14

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163	Modeling Regulatory Networks at Virginia Tech. OMICS A Journal of Integrative Biology, 2003, 7, 285-299.	1.0	14
164	Model Composition for Macromolecular Regulatory Networks. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2010, 7, 278-287.	1.9	14
165	Top-Down Network Analysis to Drive Bottom-Up Modeling of Physiological Processes. Journal of Computational Biology, 2013, 20, 409-418.	0.8	14
166	Systems biology: perspectives on multiscale modeling in research on endocrine-related cancers. Endocrine-Related Cancer, 2019, 26, R345-R368.	1.6	14
167	Analysis of the kinetic hairpin transfer model for parvoviral DNA replication. Journal of Theoretical Biology, 1990, 144, 155-169.	0.8	13
168	Challenges for Modeling and Simulation Methods in Systems Biology. , 2006, , .		13
169	Model aggregation: a building-block approach to creating large macromolecular regulatory networks. Bioinformatics, 2009, 25, 3289-3295.	1.8	13
170	Minimal Models for Cell-Cycle Control Based on Competitive Inhibition andÂMultisite Phosphorylations of Cdk Substrates. Biophysical Journal, 2013, 104, 1367-1379.	0.2	13
171	Irreversible Transitions, Bistability and Checkpoint Controls in the Eukaryotic Cell Cycle. , 2013, , 265-285.		13
172	Genome stability during cell proliferation: A systems analysis of the molecular mechanisms controlling progression through the eukaryotic cell cycle. Current Opinion in Systems Biology, 2018, 9, 22-31.	1.3	13
173	Natural antisense transcript of <i>Period2, Per2AS,</i> regulates the amplitude of the mouse circadian clock. Genes and Development, 2021, 35, 899-913.	2.7	13
174	Molecular, metabolic, and genetic control: An introduction. Chaos, 2001, 11, 81.	1.0	12
175	A Mathematical Model of Mitotic Exit in Budding Yeast: The Role of Polo Kinase. PLoS ONE, 2012, 7, e30810.	1.1	12
176	Finding all steady state solutions of chemical kinetic models. Nonlinear Analysis: Real World Applications, 2004, 5, 801-814.	0.9	11
177	Turbulence near cyclic fold bifurcations in birhythmic media. Physical Review E, 2004, 70, 026212.	0.8	11
178	Cellular automaton model of three-dimensional excitable media. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 2883.	1.7	10
179	Nonspiral excitation waves beyond the eikonal approximation. Physical Review E, 1996, 54, 4338-4346.	0.8	10
180	Velocity-curvature dependence for chemical waves in the Belousov-Zhabotinsky reaction: Theoretical explanation of experimental observations. Physical Review E, 1999, 59, 3920-3925.	0.8	10

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181	Computer evaluation of network dynamics models with application to cell cycle control in budding yeast. IET Systems Biology, 2006, 153, 13.	2.0	10
182	Periodic forcing of a mathematical model of the eukaryotic cell cycle. Physical Review E, 2006, 73, 011910.	0.8	10
183	Multistate Model Builder (MSMB): a flexible editor for compact biochemical models. BMC Systems Biology, 2014, 8, 42.	3.0	10
184	Modeling the interactions of sense and antisense Period transcripts in the mammalian circadian clock network. PLoS Computational Biology, 2018, 14, e1005957.	1.5	10
185	Cycling without the cyclosome: modeling a yeast strain lacking the APC. Cell Cycle, 2004, 3, 629-33.	1.3	10
186	Time-keeping and decision-making inÂtheÂcell cycle. Interface Focus, 2022, 12, .	1.5	10
187	Cell Cycle: Who Turns the Crank?. Current Biology, 2011, 21, R185-R187.	1.8	9
188	A Stochastic Model Correctly Predicts Changes in Budding Yeast Cell Cycle Dynamics upon Periodic Expression of CLN2. PLoS ONE, 2014, 9, e96726.	1.1	9
189	Predicting network modules of cell cycle regulators using relative protein abundance statistics. BMC Systems Biology, 2017, 11, 30.	3.0	9
190	Cell cycle control and environmental response by second messengers in Caulobacter crescentus. BMC Bioinformatics, 2020, 21, 408.	1.2	9
191	Travelling waves and static structures in a two-dimensional exactly solvable reaction-diffusion system. Journal of Physics A, 1999, 32, 8033-8044.	1.6	8
192	A quantitative model of the effect of unreplicated DNA on cell cycle progression in frog egg extracts. Journal of Theoretical Biology, 2009, 260, 110-120.	0.8	8
193	The PhysarumPhysarum Cell Cycle. , 1986, , 79-109.		8
194	Rewiring the exit from mitosis. Cell Cycle, 2005, 4, 1107-12.	1.3	8
195	An improved data analysis method for interleukin 2 microassay. Computers in Biology and Medicine, 1986, 16, 377-390.	3.9	7
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