Philip K Maini

List of Publications by Year
in descending order

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276 papers	14,092 citations	20759 60 h-index	31759 101 g-index
358 all docs	358 docs citations	358 times ranked	11832 citing authors

#	Article	IF	Citations
1	Dependence of cell-free-layer width on rheological parameters: Combining empirical data on flow separation at microvascular bifurcations with geometrical considerations. Physical Review E, 2022, 105, 014414.	0.8	3
2	Edmund John Crampin 1973â€“2021. Bulletin of Mathematical Biology, 2022, 84, 35.	0.9	2
3	Inference of the SARS-CoV-2 generation time using UK household data. ELife, 2022, 11, .	2.8	40
4	Generation time of the alpha and delta SARS-CoV-2 variants: an epidemiological analysis. Lancet Infectious Diseases, The, 2022, 22, 603-610.	4.6	154
5	A Method to Coarse-Grain MultiAgent Stochastic Systems with Regions of Multistability. Multiscale Modeling and Simulation, 2022, 20, 404-432.	0.6	0
6	Special Collection: Celebrating J.D. Murrayâ€™s Contributions to Mathematical Biology. Bulletin of Mathematical Biology, 2022, 84, 13.	0.9	1
7	Spatial structure impacts adaptive therapy by shaping intra-tumoral competition. Communications Medicine, 2022, 2, .	1.9	26
8	Control of diffusion-driven pattern formation behind a wave of competency. Physica D: Nonlinear Phenomena, 2022, 438, 133297.	1.3	7
9	Turnover Modulates the Need for a Cost of Resistance in Adaptive Therapy. Cancer Research, 2021, 81, 1135-1147.	0.4	71
10	A multiscale model of complex endothelial cell dynamics in early angiogenesis. PLoS Computational Biology, 2021, 17, e1008055.	1.5	31
11	Comparative analysis of continuum angiogenesis models. Journal of Mathematical Biology, 2021, 82, 21.	0.8	4
12	Infection, inflammation and intervention: mechanistic modelling of epithelial cells in COVID-19. Journal of the Royal Society Interface, 2021, 18, 20200950.	1.5	22
13	High infectiousness immediately before COVID-19 symptom onset highlights the importance of continued contact tracing. ELife, 2021, 10, .	2.8	63
14	Isolating Patterns in Open Reactionâ€“Diffusion Systems. Bulletin of Mathematical Biology, 2021, 83, 82.	0.9	13
15	Smoothing and the environmental manifold. Ecological Informatics, 2021, 66, 101472.	2.3	5
16	Introduction to â€˜Recent progress and open frontiers in Turingâ€™s theory of morphogenesisâ€™. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200280.	1.6	10
17	Modern perspectives on near-equilibrium analysis of Turing systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200268.	1.6	34
18	Travelling-wave analysis of a model of tumour invasion with degenerate, cross-dependent diffusion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20210593.	1.0	5

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19	A multiscale model of complex endothelial cell dynamics in early angiogenesis. , 2021, 17, e1008055.		0
20	A multiscale model of complex endothelial cell dynamics in early angiogenesis. , 2021, 17, e1008055.		0
21	A multiscale model of complex endothelial cell dynamics in early angiogenesis. , 2021, 17, e1008055.		0
22	A multiscale model of complex endothelial cell dynamics in early angiogenesis. , 2021, 17, e1008055.		0
23	Neural crest cells bulldoze through the microenvironment using Aquaporin-1 to stabilize filopodia. Development (Cambridge), 2020, 147, .	1.2	24
24	Modelling collective cell migration: neural crest as a model paradigm. Journal of Mathematical Biology, 2020, 80, 481-504.	0.8	33
25	An interdisciplinary approach to investigate collective cell migration in neural crest. Developmental Dynamics, 2020, 249, 270-280.	0.8	8
26	Evolutionary dynamics of competing phenotype-structured populations in periodically fluctuating environments. Journal of Mathematical Biology, 2020, 80, 775-807.	0.8	24
27	Inferring Tumor Proliferative Organization from Phylogenetic Tree Measures in a Computational Model. Systematic Biology, 2020, 69, 623-637.	2.7	13
28	Abnormal morphology biases hematocrit distribution in tumor vasculature and contributes to heterogeneity in tissue oxygenation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27811-27819.	3.3	40
29	Comparative study between discrete and continuum models for the evolution of competing phenotype-structured cell populations in dynamical environments. Physical Review E, 2020, 102, 042404.	0.8	11
30	A theoretical framework for transitioning from patient-level to population-scale epidemiological dynamics: influenza A as a case study. Journal of the Royal Society Interface, 2020, 17, 20200230.	1.5	26
31	A Mathematical Dissection of the Adaptation of Cell Populations to Fluctuating Oxygen Levels. Bulletin of Mathematical Biology, 2020, 82, 81.	0.9	20
32	A three phase model to investigate the effects of dead material on the growth of avascular tumours. Mathematical Modelling of Natural Phenomena, 2020, 15, 22.	0.9	15
33	Mix and Match: Phenotypic Coexistence as a Key Facilitator of Cancer Invasion. Bulletin of Mathematical Biology, 2020, 82, 15.	0.9	13
34	Visualizing mesoderm and neural crest cell dynamics during chick head morphogenesis. Developmental Biology, 2020, 461, 184-196.	0.9	12
35	Modeling perspectives on the intestinal crypt, a canonical system for growth, mechanics, and remodeling. Current Opinion in Biomedical Engineering, 2020, 15, 32-39.	1.8	22
36	Mesenchymal stem cells used as carrier cells of oncolytic adenovirus results in enhanced oncolytic virotherapy. Scientific Reports, 2020, 10, 425.	1.6	37

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37	Stochastic growth pattern of untreated human glioblastomas predicts the survival time for patients. Scientific Reports, 2020, 10, 6642.	1.6	5
38	Evaluating snail-trail frameworks for leader-follower behavior with agent-based modeling. Physical Review E, 2020, 102, 062417.	0.8	4
39	Chaste: Cancer, Heart and Soft Tissue Environment. Journal of Open Source Software, 2020, 5, 1848.	2.0	58
40	Dynamics of hierarchical weighted networks of van der Pol oscillators. Chaos, 2020, 30, 123146.	1.0	2
41	Modelling collective cell migration. AIP Conference Proceedings, 2020, , .	0.3	0
42	The Goldilocks Window of Personalized Chemotherapy: Getting the Immune Response Just Right. Cancer Research, 2019, 79, 5302-5315.	0.4	38
43	Patterns of non-normality in networked systems. Journal of Theoretical Biology, 2019, 480, 81-91.	0.8	42
44	A mathematical insight into cell labelling experiments for clonal analysis. Journal of Anatomy, 2019, 235, 687-696.	0.9	6
45	A mathematical model of the use of supplemental oxygen to combat surgical site infection. Journal of Theoretical Biology, 2019, 466, 11-23.	0.8	0
46	Selfâ€organizing hair pegâ€like structures from dissociated skin progenitor cells: New insights for human hair follicle organoid engineering and Turing patterning in an asymmetric morphogenetic field. Experimental Dermatology, 2019, 28, 355-366.	1.4	27
47	Age Structure Can Account for Delayed Logistic Proliferation of Scratch Assays. Bulletin of Mathematical Biology, 2019, 81, 2706-2724.	0.9	5
48	Clonal hematopoiesis of indeterminate potential and its impact on patient trajectories after stem cell transplantation. PLoS Computational Biology, 2019, 15, e1006913.	1.5	16
49	Elevated apoptosis impairs epithelial cell turnover and shortens villi in TNF-driven intestinal inflammation. Cell Death and Disease, 2019, 10, 108.	2.7	61
50	Recasting the Cancer Stem Cell Hypothesis: Unification Using a Continuum Model of Microenvironmental Forces. Current Stem Cell Reports, 2019, 5, 22-30.	0.7	7
51	In vitro cell migration quantification method for scratch assays. Journal of the Royal Society Interface, 2019, 16, 20180709.	1.5	76
52	Superradiant Cancer Hyperthermia Using a Buckyball Assembly of Quantum Dot Emitters. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	1.9	11
53	Post-buckling behaviour of a growing elastic rod. Journal of Mathematical Biology, 2019, 78, 777-814.	0.8	8
54	The impact of exclusion processes on angiogenesis models. Journal of Mathematical Biology, 2018, 77, 1721-1759.	0.8	9

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55	The Evolution of Tumour Composition During Fractionated Radiotherapy: Implications for Outcome. Bulletin of Mathematical Biology, 2018, 80, 1207-1235.	0.9	45
56	Mathematical Oncology. Bulletin of Mathematical Biology, 2018, 80, 945-953.	0.9	37
57	A stochastic model for tumour control probability that accounts for repair from sublethal damage. Mathematical Medicine and Biology, 2018, 35, 181-202.	0.8	7
58	Unraveling the Control of Cell Cycle Periods during Intestinal Stem Cell Differentiation. Biophysical Journal, 2018, 115, 2250-2258.	0.2	6
59	Inferring parameters of prey switching in a 1 predatorâ€“2 prey plankton system with a linear preference tradeoff. Journal of Theoretical Biology, 2018, 456, 108-122.	0.8	4
60	Identification of a Novel Clinical Phenotype of Severe Malaria using a Network-Based Clustering Approach. Scientific Reports, 2018, 8, 12849.	1.6	4
61	Chronic TNFÎ±-driven injury delays cell migration to villi in the intestinal epithelium. Journal of the Royal Society Interface, 2018, 15, 20180037.	1.5	8
62	Theoretical Insights into the Retinal Dynamics of Vascular Endothelial Growth Factor in Patients Treated with Ranibizumab, Based on an Ocular Pharmacokinetic/Pharmacodynamic Model. Molecular Pharmaceutics, 2018, 15, 2770-2784.	2.3	32
63	Mathematical Modeling of Cortical Neurogenesis Reveals that the Founder Population does not Necessarily Scale with Neurogenic Output. Cerebral Cortex, 2018, 28, 2540-2550.	1.6	25
64	The importance of geometry in the corneal micropocket angiogenesis assay. PLoS Computational Biology, 2018, 14, e1006049.	1.5	3
65	3D hybrid modelling of vascular network formation. Journal of Theoretical Biology, 2017, 414, 254-268.	0.8	63
66	Predicting the Influence of Microvascular Structure On Tumor Response to Radiotherapy. IEEE Transactions on Biomedical Engineering, 2017, 64, 504-511.	2.5	22
67	A Predator--2 Prey Fast--Slow Dynamical System for Rapid Predator Evolution. SIAM Journal on Applied Dynamical Systems, 2017, 16, 54-90.	0.7	17
68	Modeling angiogenesis: A discrete to continuum description. Physical Review E, 2017, 95, 012410.	0.8	28
69	Logistic Proliferation of Cells in Scratch Assays is Delayed. Bulletin of Mathematical Biology, 2017, 79, 1028-1050.	0.9	41
70	Editorial Special Section on Multiscale Cancer Modeling. IEEE Transactions on Biomedical Engineering, 2017, 64, 501-503.	2.5	11
71	DAN (NBL1) promotes collective neural crest migration by restraining uncontrolled invasion. Journal of Cell Biology, 2017, 216, 3339-3354.	2.3	27
72	Microvessel Chaste: An Open Library for Spatial Modeling of Vascularized Tissues. Biophysical Journal, 2017, 112, 1767-1772.	0.2	29

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73	Integrating Models to Quantify Environment-Mediated Drug Resistance. Cancer Research, 2017, 77, 5409-5418.	0.4	27
74	Semblance of Heterogeneity in Collective Cell Migration. Cell Systems, 2017, 5, 119-127.e1.	2.9	15
75	Ocular Pharmacokinetics of Therapeutic Antibodies Given by Intravitreal Injection: Estimation of Retinal Permeabilities Using a 3-Compartment Semi-Mechanistic Model. Molecular Pharmaceutics, 2017, 14, 2690-2696.	2.3	55
76	Tuneable superradiant thermal emitter assembly. Physical Review B, 2017, 95, .	1.1	22
77	An age-structured multi-strain epidemic model for antigenically diverse infectious diseases: A multi-locus framework. Nonlinear Analysis: Real World Applications, 2017, 34, 275-315.	0.9	7
78	Cell proliferation within small intestinal crypts is the principal driving force for cell migration on villi. FASEB Journal, 2017, 31, 636-649.	0.2	88
79	The critical domain size of stochastic population models. Journal of Mathematical Biology, 2017, 74, 755-782.	0.8	8
80	Comparing individual-based approaches to modelling the self-organization of multicellular tissues. PLoS Computational Biology, 2017, 13, e1005387.	1.5	185
81	A hierarchical Bayesian model for understanding the spatiotemporal dynamics of the intestinal epithelium. PLoS Computational Biology, 2017, 13, e1005688.	1.5	21
82	Optimisation of simulations of stochastic processes by removal of opposing reactions. Journal of Chemical Physics, 2016, 144, 084105.	1.2	4
83	Approximating the Critical Domain Size of Integrodifference Equations. Bulletin of Mathematical Biology, 2016, 78, 72-109.	0.9	12
84	The spatial patterning potential of nonlinear diffusion. Physics of Life Reviews, 2016, 19, 128-130.	1.5	1
85	Multisite Phosphorylation Modulates the T Cell Receptor Î¶-Chain Potency but not the Switchlike Response. Biophysical Journal, 2016, 110, 1896-1906.	0.2	23
86	Multidisciplinary approaches to understanding collective cell migration in developmental biology. Open Biology, 2016, 6, 160056.	1.5	38
87	A Mechanistic Model of the Intravitreal Pharmacokinetics of Large Molecules and the Pharmacodynamic Suppression of Ocular Vascular Endothelial Growth Factor Levels by Ranibizumab in Patients with Neovascular Age-Related Macular Degeneration. Molecular Pharmaceutics, 2016, 13, 2941-2950.	2.3	65
88	Fast solvers for optimal control problems from pattern formation. Journal of Computational Physics, 2016, 304, 27-45.	1.9	10
89	From invasion to latency: intracellular noise and cell motility as key controls of the competition between resource-limited cellular populations. Journal of Mathematical Biology, 2016, 72, 123-156.	0.8	9
90	Spatial Metrics of Tumour Vascular Organisation Predict Radiation Efficacy in a Computational Model. PLoS Computational Biology, 2016, 12, e1004712.	1.5	47

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91	Steering Evolution with Sequential Therapy to Prevent the Emergence of Bacterial Antibiotic Resistance. PLoS Computational Biology, 2015, 11, e1004493.	1.5	151
92	On the mathematical modeling of wound healing angiogenesis in skin as a reaction-transport process. Frontiers in Physiology, 2015, 6, 262.	1.3	72
93	What Has Mathematics Done for Biology?. Bulletin of Mathematical Biology, 2015, 77, 735-738.	0.9	16
94	Neural crest migration is driven by a few trailblazer cells with a unique molecular signature narrowly confined to the invasive front. Development (Cambridge), 2015, 142, 2014-2025.	1.2	119
95	Investigating the Turing conditions for diffusion-driven instability in the presence of a binding immobile substrate. Journal of Theoretical Biology, 2015, 367, 286-295.	0.8	35
96	Hybrid approaches for multiple-species stochastic reactionâ€“diffusion models. Journal of Computational Physics, 2015, 299, 429-445.	1.9	26
97	Multiscale modelling of intestinal crypt organization and carcinogenesis. Mathematical Models and Methods in Applied Sciences, 2015, 25, 2563-2585.	1.7	21
98	An integrated approach to quantitative modelling in angiogenesis research. Journal of the Royal Society Interface, 2015, 12, 20150546.	1.5	23
99	VEGF signals induce trailblazer cell identity that drives neural crest migration. Developmental Biology, 2015, 407, 12-25.	0.9	75
100	Mesoscopic and continuum modelling of angiogenesis. Journal of Mathematical Biology, 2015, 70, 485-532.	0.8	64
101	Models, measurement and inference in epithelial tissue dynamics. Mathematical Biosciences and Engineering, 2015, 12, 1321-1340.	1.0	15
102	Prey Switching with a Linear Preference Trade-Off. SIAM Journal on Applied Dynamical Systems, 2014, 13, 658-682.	0.7	35
103	Mathematical modelling of digit specification by a sonic hedgehog gradient. Developmental Dynamics, 2014, 243, 290-298.	0.8	18
104	HTLV-I infection: A dynamic struggle between viral persistence and host immunity. Journal of Theoretical Biology, 2014, 352, 92-108.	0.8	35
105	A filter-flow perspective of haematogenous metastasis offers a non-genetic paradigm for personalised cancer therapy. European Journal of Cancer, 2014, 50, 3068-3075.	1.3	19
106	Enabling multiscale modeling in systems medicine. Genome Medicine, 2014, 6, 21.	3.6	76
107	Glucoseâ€“lactate metabolic cooperation in cancer: Insights from a spatial mathematical model and implications for targeted therapy. Journal of Theoretical Biology, 2014, 361, 190-203.	0.8	18
108	Phenotypic models of T cell activation. Nature Reviews Immunology, 2014, 14, 619-629.	10.6	135

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109	Metabolic Alterations During the Growth of Tumour Spheroids. Cell Biochemistry and Biophysics, 2014, 68, 615-628.	0.9	15
110	Comparing methods for modelling spreading cell fronts. Journal of Theoretical Biology, 2014, 353, 95-103.	0.8	9
111	A general reactionâ€“diffusion model of acidity in cancer invasion. Journal of Mathematical Biology, 2014, 68, 1199-1224.	0.8	48
112	Modelling collective cell behaviour. Discrete and Continuous Dynamical Systems, 2014, 34, 5123-5133.	0.5	9
113	Biomedical Modeling: The Role of Transport and Mechanics. Bulletin of Mathematical Biology, 2013, 75, 1233-1237.	0.9	0
114	Implementing vertex dynamics models of cell populations in biology within a consistent computational framework. Progress in Biophysics and Molecular Biology, 2013, 113, 299-326.	1.4	135
115	Incorporating spatial correlations into multispecies mean-field models. Physical Review E, 2013, 88, 052713.	0.8	32
116	Modelling Delta-Notch perturbations during zebrafish somitogenesis. Developmental Biology, 2013, 373, 407-421.	0.9	14
117	Systems Model of T Cell Receptor Proximal Signaling Reveals Emergent Ultrasensitivity. PLoS Computational Biology, 2013, 9, e1003004.	1.5	44
118	Novel Methods for Analysing Bacterial Tracks Reveal Persistence in Rhodobacter sphaeroides. PLoS Computational Biology, 2013, 9, e1003276.	1.5	19
119	A Modified Oster--Murray--Harris Mechanical Model of Morphogenesis. SIAM Journal on Applied Mathematics, 2013, 73, 2124-2142.	0.8	9
120	DendroBLAST: Approximate Phylogenetic Trees in the Absence of Multiple Sequence Alignments. PLoS ONE, 2013, 8, e58537.	1.1	52
121	Modelling Hair Follicle Growth Dynamics as an Excitable Medium. PLoS Computational Biology, 2012, 8, e1002804.	1.5	22
122	Conformational Spread in the Flagellar Motor Switch: A Model Study. PLoS Computational Biology, 2012, 8, e1002523.	1.5	13
123	Multi-Cellular Rosettes in the Mouse Visceral Endoderm Facilitate the Ordered Migration of Anterior Visceral Endoderm Cells. PLoS Biology, 2012, 10, e1001256.	2.6	105
124	Macroscopic limits of individual-based models for motile cell populations with volume exclusion. Physical Review E, 2012, 86, 031903.	0.8	41
125	Advection, diffusion, and delivery over a network. Physical Review E, 2012, 86, 021905.	0.8	41
126	Fat versus Thin Threading Approach on GPUs: Application to Stochastic Simulation of Chemical Reactions. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 280-287.	4.0	18

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127	A mechanochemical model of striae distensae. Mathematical Biosciences, 2012, 240, 141-147.	0.9	40
128	The mathematics of nature at the Alan Turing centenary. Interface Focus, 2012, 2, 393-396.	1.5	6
129	Turing's model for biological pattern formation and the robustness problem. Interface Focus, 2012, 2, 487-496.	1.5	192
130	Multiscale mechanisms of cell migration during development: theory and experiment. Development (Cambridge), 2012, 139, 2935-2944.	1.2	133
131	Modelling the within-host growth of viral infections in insects. Journal of Theoretical Biology, 2012, 312, 34-43.	0.8	7
132	A theoretical investigation of the effect of proliferation and adhesion on monoclonal conversion in the colonic crypt. Journal of Theoretical Biology, 2012, 312, 143-156.	0.8	57
133	A PHABULOSA/Cytokinin Feedback Loop Controls Root Growth in Arabidopsis. Current Biology, 2012, 22, 1699-1704.	1.8	112
134	Incorporating chemical signalling factors into cell-based models of growing epithelial tissues. Journal of Mathematical Biology, 2012, 65, 441-463.	0.8	39
135	Theoretical insights into bacterial chemotaxis. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 247-259.	6.6	21
136	Age-Related Changes in Speed and Mechanism of Adult Skeletal Muscle Stem Cell Migration. Stem Cells, 2012, 30, 1182-1195.	1.4	68
137	A Fibrocontractive Mechanochemical Model of Dermal Wound Closure Incorporating Realistic Growth Factor Kinetics. Bulletin of Mathematical Biology, 2012, 74, 1143-1170.	0.9	41
138	Collagen bundle morphometry in skin and scar tissue: a novel distance mapping method provides superior measurements compared to Fourier analysis. Journal of Microscopy, 2012, 245, 82-89.	0.8	36
139	Modelling acidosis and the cell cycle in multicellular tumour spheroids. Journal of Theoretical Biology, 2012, 298, 107-115.	0.8	11
140	Stochastic reaction and diffusion on growing domains: Understanding the breakdown of robust pattern formation. Physical Review E, 2011, 84, 046216.	0.8	59
141	A mathematical model of tumour and blood pHe regulation: The buffering system. Mathematical Biosciences, 2011, 230, 1-11.	0.9	36
142	Self-Organizing and Stochastic Behaviors During the Regeneration of Hair Stem Cells. Science, 2011, 332, 586-589.	6.0	186
143	Systems biology and cancer. Progress in Biophysics and Molecular Biology, 2011, 106, 337-339.	1.4	17
144	The clock and wavefront model revisited. Journal of Theoretical Biology, 2011, 283, 227-238.	0.8	50

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145	Distinguishing graded and ultrasensitive signalling cascade kinetics by the shape of morphogen gradients in Drosophila. Journal of Theoretical Biology, 2011, 285, 136-146.	0.8	0
146	Feedback Control Architecture and the Bacterial Chemotaxis Network. PLoS Computational Biology, 2011, 7, e1001130.	1.5	20
147	Multiscale Modelling of Vascular Tumour Growth in 3D: The Roles of Domain Size and Boundary Conditions. PLoS ONE, 2011, 6, e14790.	1.1	150
148	Ab Initio Identification of Novel Regulatory Elements in the Genome of Trypanosoma brucei by Bayesian Inference on Sequence Segmentation. PLoS ONE, 2011, 6, e25666.	1.1	8
149	Modelling Aspects of Tumour Metabolism. , 2011, , .		0
150	Stability analysis of non-autonomous reaction-diffusion systems: the effects of growing domains. Journal of Mathematical Biology, 2010, 61, 133-164.	0.8	89
151	On the proportion of cancer stem cells in a tumour. Journal of Theoretical Biology, 2010, 266, 708-711.	0.8	59
152	An efficient and robust numerical algorithm for estimating parameters in Turing systems. Journal of Computational Physics, 2010, 229, 7058-7071.	1.9	31
153	Leaky vessels as a potential source of stromal acidification in tumours. Journal of Theoretical Biology, 2010, 267, 454-460.	0.8	3
154	Tumourâ€“stromal interactions in acid-mediated invasion: A mathematical model. Journal of Theoretical Biology, 2010, 267, 461-470.	0.8	62
155	Growth-induced mass flows in fungal networks. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 3265-3274.	1.2	49
156	Modeling Chemotaxis Reveals the Role of Reversed Phosphotransfer and a Bi-Functional Kinase-Phosphatase. PLoS Computational Biology, 2010, 6, e1000896.	1.5	29
157	Modelling Spatially Regulated Î²-Catenin Dynamics and Invasion inÂIntestinal Crypts. Biophysical Journal, 2010, 99, 716-725.	0.2	66
158	Conformational Spread as a Mechanism for Cooperativity in the Bacterial Flagellar Switch. Science, 2010, 327, 685-689.	6.0	176
159	Reptile scale paradigm: Evo-Devo, pattern formation and regeneration. International Journal of Developmental Biology, 2009, 53, 813-826.	0.3	133
160	Waves and patterning in developmental biology: vertebrate segmentation and feather bud formation as case studies. International Journal of Developmental Biology, 2009, 53, 783-794.	0.3	34
161	From a discrete to a continuum model of cell dynamics in one dimension. Physical Review E, 2009, 80, 031912.	0.8	78
162	Inherent noise can facilitate coherence in collective swarm motion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5464-5469.	3.3	240

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163	Chaste: A test-driven approach to software development for biological modelling. Computer Physics Communications, 2009, 180, 2452-2471.	3.0	207
164	Angiogenesis and vascular remodelling in normal and cancerous tissues. Journal of Mathematical Biology, 2009, 58, 689-721.	0.8	178
165	Directional persistence and the optimality of run-and-tumble chemotaxis. Computational Biology and Chemistry, 2009, 33, 269-274.	1.1	24
166	Spots and stripes: Pleomorphic patterning of stem cells via p-ERK-dependent cell chemotaxis shown by feather morphogenesis and mathematical simulation. Developmental Biology, 2009, 334, 369-382.	0.9	61
167	Modeling the skin pattern of fishes. Physical Review E, 2009, 79, 031908.	0.8	42
168	Experimental Evidence for Conformational Spread in the Bacterial Switch Complex. Biophysical Journal, 2009, 96, 630a.	0.2	0
169	â€˜Extremotaxisâ€™: Computing with a bacterial-inspired algorithm. BioSystems, 2008, 94, 47-54.	0.9	4
170	Mathematical modelling of tumour acidity. Journal of Theoretical Biology, 2008, 255, 106-112.	0.8	36
171	A theoretical study of the response of vascular tumours to different types of chemotherapy. Mathematical and Computer Modelling, 2008, 47, 560-579.	2.0	22
172	Cyclic dermal BMP signalling regulates stem cell activation during hair regeneration. Nature, 2008, 451, 340-344.	13.7	643
173	Multiscale Modelling of Solid Tumour Growth. , 2008, , 1-25.		5
174	Mathematical Models for Somite Formation. Current Topics in Developmental Biology, 2008, 81, 183-203.	1.0	38
175	A NEW NEUROSURGICAL TOOL INCORPORATING DIFFERENTIAL GEOMETRY AND CELLULAR AUTOMATA TECHNIQUES. Biophysical Reviews and Letters, 2008, 03, 103-110.	0.9	1
176	A NEW NEUROSURGICAL TOOL INCORPORATING DIFFERENTIAL GEOMETRY AND CELLULAR AUTOMATA TECHNIQUES. , 2008, , .		0
177	AGGREGATIVE MOVEMENT AND FRONT PROPAGATION FOR BI-STABLE POPULATION MODELS. Mathematical Models and Methods in Applied Sciences, 2007, 17, 1351-1368.	1.7	15
178	Examples of Mathematical Modeling: Tales from the Crypt. Cell Cycle, 2007, 6, 2106-2112.	1.3	54
179	Stability of spikes in the shadow Gierer-Meinhardt system with Robin boundary conditions. Chaos, 2007, 17, 037106.	1.0	11
180	Speed of reaction diffusion in embryogenesis. Physical Review E, 2007, 76, 011902.	0.8	2

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181	Mathematical Models of Avascular Tumor Growth. SIAM Review, 2007, 49, 179-208.	4.2	469
182	Mathematical modeling of cell population dynamics in the colonic crypt and in colorectal cancer. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4008-4013.	3.3	253
183	Travelling gradients in interacting morphogen systems. Mathematical Biosciences, 2007, 209, 30-50.	0.9	21
184	From segment to somite: Segmentation to epithelialization analyzed within quantitative frameworks. Developmental Dynamics, 2007, 236, 1392-1402.	0.8	31
185	Metabolic changes during carcinogenesis: Potential impact on invasiveness. Journal of Theoretical Biology, 2007, 244, 703-713.	0.8	164
186	Velocity-induced numerical solutions of reaction-diffusion systems on continuously growing domains. Journal of Computational Physics, 2007, 225, 100-119.	1.9	72
187	A mechanism for morphogen-controlled domain growth. Journal of Mathematical Biology, 2007, 54, 597-622.	0.8	43
188	Dispersion relation in oscillatory reaction-diffusion systems with self-consistent flow in true slime mold. Journal of Mathematical Biology, 2007, 54, 745-760.	0.8	26
189	Quiescence as a mechanism for cyclical hypoxia and acidosis. Journal of Mathematical Biology, 2007, 55, 767-779.	0.8	8
190	Multiscale Modeling in Biology. American Scientist, 2007, 95, 134.	0.1	70
191	A clock and wavefront mechanism for somite formation. Developmental Biology, 2006, 293, 116-126.	0.9	114
192	Some Mathematical Modelling Challenges and Approaches in Cancer. , 2006, , 95-107.		6
193	Viewpoint 3. Experimental Dermatology, 2006, 15, 557-559.	1.4	3
194	Mixed-mode pattern in Doublefoot mutant mouse limbâ€"Turing reactionâ€“diffusion model on a growing domain during limb development. Journal of Theoretical Biology, 2006, 240, 562-573.	0.8	88
195	A mathematical investigation of a Clock and Wavefront model for somitogenesis. Journal of Mathematical Biology, 2006, 52, 458-482.	0.8	40
196	Mode Transitions in a Model Reactionâ€“Diffusion System Driven by Domain Growth and Noise. Bulletin of Mathematical Biology, 2006, 68, 981-995.	0.9	35
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