

Philip K Maini

List of Publications by Citations

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272
papers

10,607
citations

54
h-index

91
g-index

358
ext. papers

12,445
ext. citations

4.4
avg, IF

6.42
L-index

#	Paper	IF	Citations
272	Cyclic dermal BMP signalling regulates stem cell activation during hair regeneration. <i>Nature</i> , 2008 , 451, 340-4	50.4	507
271	Pattern formation by lateral inhibition with feedback: a mathematical model of delta-notch intercellular signalling. <i>Journal of Theoretical Biology</i> , 1996 , 183, 429-46	2.3	372
270	Mathematical Models of Avascular Tumor Growth. <i>SIAM Review</i> , 2007 , 49, 179-208	7.4	371
269	Reaction and diffusion on growing domains: scenarios for robust pattern formation. <i>Bulletin of Mathematical Biology</i> , 1999 , 61, 1093-120	2.1	232
268	Mathematical modeling of cell population dynamics in the colonic crypt and in colorectal cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 4008-13	11.5	219
267	Spatial pattern formation in chemical and biological systems. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1997 , 93, 3601-3610		214
266	Inherent noise can facilitate coherence in collective swarm motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 5464-9	11.5	202
265	Non-linear incidence and stability of infectious disease models. <i>Mathematical Medicine and Biology</i> , 2005 , 22, 113-28	1.3	174
264	Traveling wave model to interpret a wound-healing cell migration assay for human peritoneal mesothelial cells. <i>Tissue Engineering</i> , 2004 , 10, 475-82		172
263	A lyapunov function and global properties for sir and seir epidemiological models with nonlinear incidence. <i>Mathematical Biosciences and Engineering</i> , 2004 , 1, 57-60	2.1	172
262	Mathematical oncology: cancer summed up. <i>Nature</i> , 2003 , 421, 321	50.4	167
261	Chaste: A test-driven approach to software development for biological modelling. <i>Computer Physics Communications</i> , 2009 , 180, 2452-2471	4.2	166
260	Self-organizing and stochastic behaviors during the regeneration of hair stem cells. <i>Science</i> , 2011 , 332, 586-9	33.3	154
259	Conformational spread as a mechanism for cooperativity in the bacterial flagellar switch. <i>Science</i> , 2010 , 327, 685-9	33.3	151
258	Angiogenesis and vascular remodelling in normal and cancerous tissues. <i>Journal of Mathematical Biology</i> , 2009 , 58, 689-721	2	145
257	Developmental biology. The Turing model comes of molecular age. <i>Science</i> , 2006 , 314, 1397-8	33.3	143
256	Metabolic changes during carcinogenesis: potential impact on invasiveness. <i>Journal of Theoretical Biology</i> , 2007 , 244, 703-13	2.3	140

255	TuringB model for biological pattern formation and the robustness problem. <i>Interface Focus</i> , 2012 , 2, 487-96	3.9	138
254	A mechanochemical model for adult dermal wound contraction and the permanence of the contracted tissue displacement profile. <i>Journal of Theoretical Biology</i> , 1995 , 177, 113-28	2.3	138
253	Enzyme kinetics at high enzyme concentration. <i>Bulletin of Mathematical Biology</i> , 2000 , 62, 483-99	2.1	122
252	Multiscale modelling of vascular tumour growth in 3D: the roles of domain size and boundary conditions. <i>PLoS ONE</i> , 2011 , 6, e14790	3.7	121
251	The role of acidity in solid tumour growth and invasion. <i>Journal of Theoretical Biology</i> , 2005 , 235, 476-84	2.3	120
250	Comparing individual-based approaches to modelling the self-organization of multicellular tissues. <i>PLoS Computational Biology</i> , 2017 , 13, e1005387	5	111
249	Multiscale mechanisms of cell migration during development: theory and experiment. <i>Development (Cambridge)</i> , 2012 , 139, 2935-44	6.6	104
248	Phenotypic models of T cell activation. <i>Nature Reviews Immunology</i> , 2014 , 14, 619-29	36.5	103
247	Reptile scale paradigm: Evo-Devo, pattern formation and regeneration. <i>International Journal of Developmental Biology</i> , 2009 , 53, 813-26	1.9	101
246	Turing instabilities in general systems. <i>Journal of Mathematical Biology</i> , 2000 , 41, 493-512	2	97
245	A clock and wavefront mechanism for somite formation. <i>Developmental Biology</i> , 2006 , 293, 116-26	3.1	95
244	A PHABULOSA/cytokinin feedback loop controls root growth in Arabidopsis. <i>Current Biology</i> , 2012 , 22, 1699-704	6.3	94
243	Steering Evolution with Sequential Therapy to Prevent the Emergence of Bacterial Antibiotic Resistance. <i>PLoS Computational Biology</i> , 2015 , 11, e1004493	5	93
242	Cellular pattern formation during Dictyostelium aggregation. <i>Physica D: Nonlinear Phenomena</i> , 1995 , 85, 425-444	3.3	92
241	An analysis of B cell selection mechanisms in germinal centers. <i>Mathematical Medicine and Biology</i> , 2006 , 23, 255-77	1.3	90
240	Mathematical modelling of extracellular matrix dynamics using discrete cells: fiber orientation and tissue regeneration. <i>Journal of Theoretical Biology</i> , 1999 , 199, 449-71	2.3	90
239	Neural crest migration is driven by a few trailblazer cells with a unique molecular signature narrowly confined to the invasive front. <i>Development (Cambridge)</i> , 2015 , 142, 2014-25	6.6	86
238	Multi-cellular rosettes in the mouse visceral endoderm facilitate the ordered migration of anterior visceral endoderm cells. <i>PLoS Biology</i> , 2012 , 10, e1001256	9.7	86

237	Mixed-mode pattern in Doublefoot mutant mouse limb--Turing reaction-diffusion model on a growing domain during limb development. <i>Journal of Theoretical Biology</i> , 2006 , 240, 562-73	2.3	85
236	A moving grid finite element method applied to a model biological pattern generator. <i>Journal of Computational Physics</i> , 2003 , 190, 478-500	4.1	85
235	Complex pattern formation in reaction-diffusion systems with spatially varying parameters. <i>Physica D: Nonlinear Phenomena</i> , 2005 , 202, 95-115	3.3	81
234	Implementing vertex dynamics models of cell populations in biology within a consistent computational framework. <i>Progress in Biophysics and Molecular Biology</i> , 2013 , 113, 299-326	4.7	79
233	The Effect of Growth and Curvature on Pattern Formation. <i>Journal of Dynamics and Differential Equations</i> , 2004 , 16, 1093-1121	1.3	77
232	Stability analysis of non-autonomous reaction-diffusion systems: the effects of growing domains. <i>Journal of Mathematical Biology</i> , 2010 , 61, 133-64	2	72
231	Mathematical modeling of corneal epithelial wound healing. <i>Mathematical Biosciences</i> , 1994 , 124, 127-47.9	3.9	68
230	Diffusion driven instability in an inhomogeneous domain. <i>Bulletin of Mathematical Biology</i> , 1993 , 55, 365-384	2.1	66
229	From a discrete to a continuum model of cell dynamics in one dimension. <i>Physical Review E</i> , 2009 , 80, 031912	2.4	63
228	Pattern formation in reaction-diffusion models with spatially inhomogeneous diffusion coefficients. <i>Mathematical Medicine and Biology</i> , 1992 , 9, 197-213	1.3	63
227	Enabling multiscale modeling in systems medicine. <i>Genome Medicine</i> , 2014 , 6, 21	14.4	61
226	Multiscale Modeling in Biology. <i>American Scientist</i> , 2007 , 95, 134	2.7	61
225	Velocity-induced numerical solutions of reaction-diffusion systems on continuously growing domains. <i>Journal of Computational Physics</i> , 2007 , 225, 100-119	4.1	59
224	VEGF signals induce trailblazer cell identity that drives neural crest migration. <i>Developmental Biology</i> , 2015 , 407, 12-25	3.1	57
223	A Moving Grid Finite Element Method for the Simulation of Pattern Generation by Turing Models on Growing Domains. <i>Journal of Scientific Computing</i> , 2005 , 24, 247-262	2.3	56
222	Multiscale Modelling of Tumour Growth and Therapy: The Influence of Vessel Normalisation on Chemotherapy. <i>Computational and Mathematical Methods in Medicine</i> , 2006 , 7, 85-119	2.8	55
221	Speed of pattern appearance in reaction-diffusion models: implications in the pattern formation of limb bud mesenchyme cells. <i>Bulletin of Mathematical Biology</i> , 2004 , 66, 627-49	2.1	55
220	Age-related changes in speed and mechanism of adult skeletal muscle stem cell migration. <i>Stem Cells</i> , 2012 , 30, 1182-95	5.8	54

219	Parameter space analysis, pattern sensitivity and model comparison for Turing and stationary flow-distributed waves (FDS). <i>Physica D: Nonlinear Phenomena</i> , 2001 , 160, 79-102	3.3	54
218	Mesoscopic and continuum modelling of angiogenesis. <i>Journal of Mathematical Biology</i> , 2015 , 70, 485-532		52
217	A theoretical investigation of the effect of proliferation and adhesion on monoclonal conversion in the colonic crypt. <i>Journal of Theoretical Biology</i> , 2012 , 312, 143-56	2.3	52
216	Modelling spatially regulated beta-catenin dynamics and invasion in intestinal crypts. <i>Biophysical Journal</i> , 2010 , 99, 716-25	2.9	52
215	Modeling the effects of transforming growth factor-beta on extracellular matrix alignment in dermal wound repair. <i>Wound Repair and Regeneration</i> , 2001 , 9, 278-86	3.6	52
214	On the proportion of cancer stem cells in a tumour. <i>Journal of Theoretical Biology</i> , 2010 , 266, 708-11	2.3	51
213	Tumour-stromal interactions in acid-mediated invasion: a mathematical model. <i>Journal of Theoretical Biology</i> , 2010 , 267, 461-70	2.3	51
212	Existence and uniqueness of a sharp travelling wave in degenerate non-linear diffusion Fisher-KPP equations. <i>Journal of Mathematical Biology</i> , 1994 , 33, 163-192	2	51
211	Spots and stripes: pleomorphic patterning of stem cells via p-ERK-dependent cell chemotaxis shown by feather morphogenesis and mathematical simulation. <i>Developmental Biology</i> , 2009 , 334, 369-82 ³¹		50
210	Stochastic reaction and diffusion on growing domains: understanding the breakdown of robust pattern formation. <i>Physical Review E</i> , 2011 , 84, 046216	2.4	48
209	Pattern formation in spatially heterogeneous Turing reaction-diffusion models. <i>Physica D: Nonlinear Phenomena</i> , 2003 , 181, 80-101	3.3	47
208	A model for colour pattern formation in the butterfly wing of <i>Papilio dardanus</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2000 , 267, 851-9	4.4	47
207	Cell proliferation within small intestinal crypts is the principal driving force for cell migration on villi. <i>FASEB Journal</i> , 2017 , 31, 636-649	0.9	46
206	Examples of mathematical modeling: tales from the crypt. <i>Cell Cycle</i> , 2007 , 6, 2106-12	4.7	46
205	Different populations of RNA polymerase II in living mammalian cells. <i>Chromosome Research</i> , 2005 , 13, 135-44	4.4	45
204	Mathematical modelling of anisotropy in fibrous connective tissue. <i>Mathematical Biosciences</i> , 1999 , 158, 145-70	3.9	45
203	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. <i>Molecular Pharmaceutics</i> , 2016 , 13, 2941-50	5.6	44
202	MODELLING THE RESPONSE OF VASCULAR TUMOURS TO CHEMOTHERAPY: A MULTISCALE APPROACH. <i>Mathematical Models and Methods in Applied Sciences</i> , 2006 , 16, 1219-1241	3.5	44

201	The clock and wavefront model revisited. <i>Journal of Theoretical Biology</i> , 2011 , 283, 227-38	2.3	43
200	Pigmentation pattern formation in butterflies: experiments and models. <i>Comptes Rendus - Biologies</i> , 2003 , 326, 717-27	1.4	43
199	Unravelling the Turing bifurcation using spatially varying diffusion coefficients. <i>Journal of Mathematical Biology</i> , 1998 , 37, 381-417	2	40
198	Cutting edge: back to "one-way" germinal centers. <i>Journal of Immunology</i> , 2005 , 174, 2489-93	5.3	40
197	Growth-induced mass flows in fungal networks. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010 , 277, 3265-74	4.4	39
196	A mathematical investigation of a Clock and Wavefront model for somitogenesis. <i>Journal of Mathematical Biology</i> , 2006 , 52, 458-82	2	38
195	A mathematical model for fibro-proliferative wound healing disorders. <i>Bulletin of Mathematical Biology</i> , 1996 , 58, 787-808	2.1	38
194	3D hybrid modelling of vascular network formation. <i>Journal of Theoretical Biology</i> , 2017 , 414, 254-268	2.3	37
193	Systems model of T cell receptor proximal signaling reveals emergent ultrasensitivity. <i>PLoS Computational Biology</i> , 2013 , 9, e1003004	5	37
192	A numerical approach to the study of spatial pattern formation in the ligaments of arcoid bivalves. <i>Bulletin of Mathematical Biology</i> , 2002 , 64, 501-30	2.1	37
191	The Dynamics and Pinning of a Spike for a Reaction-Diffusion System. <i>SIAM Journal on Applied Mathematics</i> , 2002 , 62, 1297-1328	1.8	37
190	Clock and induction model for somitogenesis. <i>Developmental Dynamics</i> , 2000 , 217, 415-20	2.9	37
189	Ocular Pharmacokinetics of Therapeutic Antibodies Given by Intravitreal Injection: Estimation of Retinal Permeabilities Using a 3-Compartment Semi-Mechanistic Model. <i>Molecular Pharmaceutics</i> , 2017 , 14, 2690-2696	5.6	36
188	Modeling the skin pattern of fishes. <i>Physical Review E</i> , 2009 , 79, 031908	2.4	36
187	A mechanism for morphogen-controlled domain growth. <i>Journal of Mathematical Biology</i> , 2007 , 54, 597-622		35
186	On the mathematical modeling of wound healing angiogenesis in skin as a reaction-transport process. <i>Frontiers in Physiology</i> , 2015 , 6, 262	4.6	34
185	Macroscopic limits of individual-based models for motile cell populations with volume exclusion. <i>Physical Review E</i> , 2012 , 86, 031903	2.4	33
184	A fibrocontractive mechanochemical model of dermal wound closure incorporating realistic growth factor kinetics. <i>Bulletin of Mathematical Biology</i> , 2012 , 74, 1143-70	2.1	31

183	Collagen bundle morphometry in skin and scar tissue: a novel distance mapping method provides superior measurements compared to Fourier analysis. <i>Journal of Microscopy</i> , 2012 , 245, 82-9	1.9	31
182	Mathematical models for somite formation. <i>Current Topics in Developmental Biology</i> , 2008 , 81, 183-203	5.3	31
181	Elevated apoptosis impairs epithelial cell turnover and shortens villi in TNF-driven intestinal inflammation. <i>Cell Death and Disease</i> , 2019 , 10, 108	9.8	30
180	A general reaction-diffusion model of acidity in cancer invasion. <i>Journal of Mathematical Biology</i> , 2014 , 68, 1199-224	2	30
179	Travelling wave phenomena in non-linear diffusion degenerate Nagumo equations. <i>Journal of Mathematical Biology</i> , 1997 , 35, 713-728	2	30
178	Mathematical Oncology. <i>Bulletin of Mathematical Biology</i> , 2018 , 80, 945-953	2.1	29
177	A mechanochemical model of striae distensae. <i>Mathematical Biosciences</i> , 2012 , 240, 141-7	3.9	29
176	Role of fibroblast migration in collagen fiber formation during fetal and adult dermal wound healing. <i>Bulletin of Mathematical Biology</i> , 1997 , 59, 1077-100	2.1	29
175	Mathematical modelling of tumour acidity. <i>Journal of Theoretical Biology</i> , 2008 , 255, 106-12	2.3	29
174	Using mathematical models to help understand biological pattern formation. <i>Comptes Rendus - Biologies</i> , 2004 , 327, 225-34	1.4	29
173	Spatial Metrics of Tumour Vascular Organisation Predict Radiation Efficacy in a Computational Model. <i>PLoS Computational Biology</i> , 2016 , 12, e1004712	5	29
172	HTLV-I infection: a dynamic struggle between viral persistence and host immunity. <i>Journal of Theoretical Biology</i> , 2014 , 352, 92-108	2.3	28
171	Incorporating chemical signalling factors into cell-based models of growing epithelial tissues. <i>Journal of Mathematical Biology</i> , 2012 , 65, 441-63	2	28
170	Advection, diffusion, and delivery over a network. <i>Physical Review E</i> , 2012 , 86, 021905	2.4	28
169	Biological Pattern Formation on Two-Dimensional Spatial Domains: A Nonlinear Bifurcation Analysis. <i>SIAM Journal on Applied Mathematics</i> , 1997 , 57, 1485-1509	1.8	28
168	Mode transitions in a model reaction-diffusion system driven by domain growth and noise. <i>Bulletin of Mathematical Biology</i> , 2006 , 68, 981-95	2.1	28
167	A mathematical model for germinal centre kinetics and affinity maturation. <i>Journal of Theoretical Biology</i> , 2002 , 219, 153-75	2.3	28
166	Multidisciplinary approaches to understanding collective cell migration in developmental biology. <i>Open Biology</i> , 2016 , 6,	7	27

165	A mathematical model of tumour and blood pH regulation: The HCO ₃ ⁻ /CO ₂ buffering system. <i>Mathematical Biosciences</i> , 2011 , 230, 1-11	3.9	27
164	Modeling chemotaxis reveals the role of reversed phosphotransfer and a bi-functional kinase-phosphatase. <i>PLoS Computational Biology</i> , 2010 , 6, e1000896	5	26
163	Waves and patterning in developmental biology: vertebrate segmentation and feather bud formation as case studies. <i>International Journal of Developmental Biology</i> , 2009 , 53, 783-94	1.9	26
162	Periodic pattern formation in reaction-diffusion systems: an introduction for numerical simulation. <i>Kaibogaku Zasshi Journal of Anatomy</i> , 2004 , 79, 112-23		26
161	Phase differences in reaction-diffusion-advection systems and applications to morphogenesis. <i>IMA Journal of Applied Mathematics</i> , 1995 , 55, 19-33	1	26
160	Mesenchymal stem cells used as carrier cells of oncolytic adenovirus results in enhanced oncolytic virotherapy. <i>Scientific Reports</i> , 2020 , 10, 425	4.9	25
159	The Evolution of Tumour Composition During Fractionated Radiotherapy: Implications for Outcome. <i>Bulletin of Mathematical Biology</i> , 2018 , 80, 1207-1235	2.1	25
158	Prey Switching with a Linear Preference Trade-Off. <i>SIAM Journal on Applied Dynamical Systems</i> , 2014 , 13, 658-682	2.8	25
157	From segment to somite: segmentation to epithelialization analyzed within quantitative frameworks. <i>Developmental Dynamics</i> , 2007 , 236, 1392-402	2.9	25
156	Investigating the Turing conditions for diffusion-driven instability in the presence of a binding immobile substrate. <i>Journal of Theoretical Biology</i> , 2015 , 367, 286-295	2.3	24
155	Incorporating spatial correlations into multispecies mean-field models. <i>Physical Review E</i> , 2013 , 88, 052713	2.4	24
154	DAN (NBL1) promotes collective neural crest migration by restraining uncontrolled invasion. <i>Journal of Cell Biology</i> , 2017 , 216, 3339-3354	7.3	24
153	Dispersion relation in oscillatory reaction-diffusion systems with self-consistent flow in true slime mold. <i>Journal of Mathematical Biology</i> , 2007 , 54, 745-60	2	24
152	Pattern formation of scale cells in lepidoptera by differential origin-dependent cell adhesion. <i>Bulletin of Mathematical Biology</i> , 1999 , 61, 807-27	2.1	24
151	Hybrid approaches for multiple-species stochastic reaction-diffusion models. <i>Journal of Computational Physics</i> , 2015 , 299, 429-445	4.1	23
150	Streaming instability of slime mold amoebae: An analytical model. <i>Physical Review E</i> , 1997 , 56, 2074-2080	2.4	23
149	A design principle for vascular beds: the effects of complex blood rheology. <i>Microvascular Research</i> , 2005 , 69, 156-72	3.7	23
148	Logistic Proliferation of Cells in Scratch Assays is Delayed. <i>Bulletin of Mathematical Biology</i> , 2017 , 79, 1028-1050	2.1	22

147	DendroBLAST: approximate phylogenetic trees in the absence of multiple sequence alignments. <i>PLoS ONE</i> , 2013 , 8, e58537	3.7	22
146	Chaste: Cancer, Heart and Soft Tissue Environment. <i>Journal of Open Source Software</i> , 2020 , 5, 1848	5.2	22
145	The impact of cell crowding and active cell movement on vascular tumour growth. <i>Networks and Heterogeneous Media</i> , 2006 , 1, 515-535	1.6	22
144	Theoretical Insights into the Retinal Dynamics of Vascular Endothelial Growth Factor in Patients Treated with Ranibizumab, Based on an Ocular Pharmacokinetic/Pharmacodynamic Model. <i>Molecular Pharmaceutics</i> , 2018 , 15, 2770-2784	5.6	21
143	Integrating Models to Quantify Environment-Mediated Drug Resistance. <i>Cancer Research</i> , 2017 , 77, 5409-5418	5.4	21
142	Directional persistence and the optimality of run-and-tumble chemotaxis. <i>Computational Biology and Chemistry</i> , 2009 , 33, 269-74	3.6	21
141	An efficient and robust numerical algorithm for estimating parameters in Turing systems. <i>Journal of Computational Physics</i> , 2010 , 229, 7058-7071	4.1	21
140	Hierarchically coupled ultradian oscillators generating robust circadian rhythms. <i>Bulletin of Mathematical Biology</i> , 1997 , 59, 517-32	2.1	21
139	Spatially varying equilibria of mechanical models: application to dermal wound contraction. <i>Mathematical Biosciences</i> , 1998 , 147, 113-29	3.9	21
138	A theoretical study of the response of vascular tumours to different types of chemotherapy. <i>Mathematical and Computer Modelling</i> , 2008 , 47, 560-579		21
137	In vitro cell migration quantification method for scratch assays. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20180709	4.1	20
136	Abnormal morphology biases hematocrit distribution in tumor vasculature and contributes to heterogeneity in tissue oxygenation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 27811-27819	11.5	20
135	Multiscale modelling of intestinal crypt organization and carcinogenesis. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 2563-2585	3.5	19
134	Microvessel Chaste: An Open Library for Spatial Modeling of Vascularized Tissues. <i>Biophysical Journal</i> , 2017 , 112, 1767-1772	2.9	19
133	Tuneable superradiant thermal emitter assembly. <i>Physical Review B</i> , 2017 , 95,	3.3	19
132	Distinct mechanisms underlie pattern formation in the skin and skin appendages. <i>Birth Defects Research Part C: Embryo Today Reviews</i> , 2006 , 78, 280-91		19
131	Models for pattern formation in somitogenesis: a marriage of cellular and molecular biology. <i>Comptes Rendus - Biologies</i> , 2002 , 325, 179-89	1.4	19
130	High infectiousness immediately before COVID-19 symptom onset highlights the importance of continued contact tracing. <i>ELife</i> , 2021 , 10,	8.9	19

129	Multisite Phosphorylation Modulates the T Cell Receptor ϵ Chain Potency but not the Switchlike Response. <i>Biophysical Journal</i> , 2016 , 110, 1896-1906	2.9	18
128	Theoretical insights into bacterial chemotaxis. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2012 , 4, 247-59	6.6	18
127	Turnover Modulates the Need for a Cost of Resistance in Adaptive Therapy. <i>Cancer Research</i> , 2021 , 81, 1135-1147	10.1	18
126	An integrated approach to quantitative modelling in angiogenesis research. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 0546	4.1	17
125	The Goldilocks Window of Personalized Chemotherapy: Getting the Immune Response Just Right. <i>Cancer Research</i> , 2019 , 79, 5302-5315	10.1	17
124	Modelling hair follicle growth dynamics as an excitable medium. <i>PLoS Computational Biology</i> , 2012 , 8, e1002804	5	17
123	Patterns of non-normality in networked systems. <i>Journal of Theoretical Biology</i> , 2019 , 480, 81-91	2.3	16
122	DISPERSAL CAN SHARPEN PARAPATRIC BOUNDARIES ON A SPATIALLY VARYING ENVIRONMENT. <i>Ecology</i> , 2000 , 81, 749-760	4.6	16
121	Generation time of the alpha and delta SARS-CoV-2 variants: an epidemiological analysis.. <i>Lancet Infectious Diseases</i> , 2022 ,	25.5	16
120	Mathematical Modeling of Cortical Neurogenesis Reveals that the Founder Population does not Necessarily Scale with Neurogenic Output. <i>Cerebral Cortex</i> , 2018 , 28, 2540-2550	5.1	15
119	Novel methods for analysing bacterial tracks reveal persistence in <i>Rhodobacter sphaeroides</i> . <i>PLoS Computational Biology</i> , 2013 , 9, e1003276	5	15
118	Travelling gradients in interacting morphogen systems. <i>Mathematical Biosciences</i> , 2007 , 209, 30-50	3.9	15
117	Turing patterns in fish skin?. <i>Nature</i> , 1996 , 380, 678-678	50.4	15
116	Evolutionary dynamics of competing phenotype-structured populations in periodically fluctuating environments. <i>Journal of Mathematical Biology</i> , 2020 , 80, 775-807	2	15
115	Predicting the Influence of Microvascular Structure On Tumor Response to Radiotherapy. <i>IEEE Transactions on Biomedical Engineering</i> , 2017 , 64, 504-511	5	14
114	A Predator--2 Prey Fast--Slow Dynamical System for Rapid Predator Evolution. <i>SIAM Journal on Applied Dynamical Systems</i> , 2017 , 16, 54-90	2.8	14
113	Modeling angiogenesis: A discrete to continuum description. <i>Physical Review E</i> , 2017 , 95, 012410	2.4	14
112	A filter-flow perspective of haematogenous metastasis offers a non-genetic paradigm for personalised cancer therapy. <i>European Journal of Cancer</i> , 2014 , 50, 3068-75	7.5	14

111	Metabolic alterations during the growth of tumour spheroids. <i>Cell Biochemistry and Biophysics</i> , 2014 , 68, 615-28	3.2	14
110	Fat versus Thin Threading Approach on GPUs: Application to Stochastic Simulation of Chemical Reactions. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2012 , 23, 280-287	3.7	14
109	Feedback control architecture and the bacterial chemotaxis network. <i>PLoS Computational Biology</i> , 2011 , 7, e1001130	5	14
108	How the mouse got its stripes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 9656-7	11.5	14
107	A hierarchical Bayesian model for understanding the spatiotemporal dynamics of the intestinal epithelium. <i>PLoS Computational Biology</i> , 2017 , 13, e1005688	5	13
106	Mathematical modelling of digit specification by a sonic hedgehog gradient. <i>Developmental Dynamics</i> , 2014 , 243, 290-8	2.9	13
105	Conformational spread in the flagellar motor switch: a model study. <i>PLoS Computational Biology</i> , 2012 , 8, e1002523	5	13
104	AGGREGATIVE MOVEMENT AND FRONT PROPAGATION FOR BI-STABLE POPULATION MODELS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2007 , 17, 1351-1368	3.5	13
103	Self-organizing hair peg-like structures from dissociated skin progenitor cells: New insights for human hair follicle organoid engineering and Turing patterning in an asymmetric morphogenetic field. <i>Experimental Dermatology</i> , 2019 , 28, 355-366	4	12
102	The effect of population density on shoot morphology of herbs in relation to light capture by leaves. <i>Ecological Modelling</i> , 2000 , 128, 51-62	3	12
101	Clonal hematopoiesis of indeterminate potential and its impact on patient trajectories after stem cell transplantation. <i>PLoS Computational Biology</i> , 2019 , 15, e1006913	5	11
100	A theoretical framework for transitioning from patient-level to population-scale epidemiological dynamics: influenza A as a case study. <i>Journal of the Royal Society Interface</i> , 2020 , 17, 20200230	4.1	11
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