Haralambos Hatzikirou

List of Publications by Year
in descending order

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62 papers	2,073 citations	257101 24 h-index	253896 43 g-index
76 all docs	76 docs citations	76 times ranked	2366 citing authors

#	Article	IF	Citations
1	'Go or Grow': the key to the emergence of invasion in tumour progression?. Mathematical Medicine and Biology, 2012, 29, 49-65.	0.8	281
2	The biology and mathematical modelling of glioma invasion: a review. Journal of the Royal Society Interface, 2017, 14, 20170490.	1.5	156
3	Avian photoreceptor patterns represent a disordered hyperuniform solution to a multiscale packing problem. Physical Review E, 2014, 89, 022721.	0.8	154
4	Vocal production mechanisms in a non-human primate: morphological data and a model. Journal of Human Evolution, 2005, 48, 85-96.	1.3	120
5	MATHEMATICAL MODELLING OF GLIOBLASTOMA TUMOUR DEVELOPMENT: A REVIEW. Mathematical Models and Methods in Applied Sciences, 2005, 15, 1779-1794.	1.7	117
6	Evolutionary game theory elucidates the role of glycolysis in glioma progression and invasion. Cell Proliferation, 2008, 41, 980-987.	2.4	117
7	Identification of intrinsic in vitro cellular mechanisms for glioma invasion. Journal of Theoretical Biology, 2011, 287, 131-147.	0.8	85
8	An Emerging Allee Effect Is Critical for Tumor Initiation and Persistence. PLoS Computational Biology, 2015, 11, e1004366.	1.5	81
9	Studying the emergence of invasiveness in tumours using game theory. European Physical Journal B, 2008, 63, 393-397.	0.6	69
10	Cellular Automata as Microscopic Models of Cell Migration in Heterogeneous Environments. Current Topics in Developmental Biology, 2008, 81, 401-434.	1.0	66
11	Density-dependent quiescence in glioma invasion: instability in a simple reactionâ€“diffusion model for the migration/proliferation dichotomy. Journal of Biological Dynamics, 2012, 6, 54-71.	0.8	52
12	Prediction of traveling front behavior in a lattice-gas cellular automaton model for tumor invasion. Computers and Mathematics With Applications, 2010, 59, 2326-2339.	1.4	50
13	Investigation of the Migration/Proliferation Dichotomy and its Impact on Avascular Glioma Invasion. Mathematical Modelling of Natural Phenomena, 2012, 7, 105-135.	0.9	50
14	Why one-size-fits-all vaso-modulatory interventions fail to control glioma invasion: in silico insights. Scientific Reports, 2016, 6, 37283.	1.6	47
15	Multiple discontinuities in nonhuman vocal tracts â€“ A reply. Journal of Human Evolution, 2006, 50, 222-225.	1.3	42
16	Mechanical Control of Cell Proliferation Increases Resistance to Chemotherapeutic Agents. Physical Review Letters, 2020, 125, 128103.	2.9	42
17	In Silico Analysis of Cell Cycle Synchronisation Effects in Radiotherapy of Tumour Spheroids. PLoS Computational Biology, 2013, 9, e1003295.	1.5	39
18	Decreased plasma phospholipid concentrations and increased acid sphingomyelinase activity are accurate biomarkers for community-acquired pneumonia. Journal of Translational Medicine, 2019, 17, 365.	1.8	38

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19	Lattice-Gas Cellular Automaton Models for Biology: From Fluids to Cells. Acta Biotheoretica, 2010, 58, 329-340.	0.7	35
20	Hook length of the bacterial flagellum is optimized for maximal stability of the flagellar bundle. PLoS Biology, 2018, 16, e2006989.	2.6	31
21	Dynamic density functional theory of solid tumor growth: Preliminary models. AIP Advances, 2012, 2, 011210.	0.6	31
22	Integrative physical oncology. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 1-14.	6.6	29
23	Mathematical Oncology: How Are the Mathematical and Physical Sciences Contributing to the War on Breast Cancer?. Current Breast Cancer Reports, 2010, 2, 121-129.	0.5	27
24	From Immune Cells to Self-Organizing Ultra-Dense Small Cell Networks. IEEE Journal on Selected Areas in Communications, 2016, 34, 800-811.	9.7	26
25	A Mechanistic Collective Cell Model for Epithelial Colony Growth and Contact Inhibition. Biophysical Journal, 2015, 109, 1347-1357.	0.2	24
26	Multidimensional Analysis Integrating Human T-Cell Signatures in Lymphatic Tissues with Sex of Humanized Mice for Prediction of Responses after Dendritic Cell Immunization. Frontiers in Immunology, 2017, 8, 1709.	2.2	22
27	In-silico insights on the prognostic potential of immune cell infiltration patterns in the breast lobular epithelium. Scientific Reports, 2016, 6, 33322.	1.6	21
28	Cancer therapeutic potential of combinatorial immuno- and vasomodulatory interventions. Journal of the Royal Society Interface, 2015, 12, 20150439.	1.5	16
29	Extracting cellular automaton rules from physical Langevin equation models for single and collective cell migration. Journal of Mathematical Biology, 2017, 75, 1075-1100.	0.8	16
30	In silico tumor control induced via alternating immunostimulating and immunosuppressive phases. Virulence, 2016, 7, 174-186.	1.8	15
31	Improving personalized tumor growth predictions using a Bayesian combination of mechanistic modeling and machine learning. Communications Medicine, 2021, 1, .	1.9	15
32	Therapeutic Potential of Bacteria against Solid Tumors. Cancer Research, 2017, 77, 1553-1563.	0.4	14
33	Cellular automaton models for time-correlated random walks: derivation and analysis. Scientific Reports, 2017, 7, 16952.	1.6	14
34	BIO-LGCA: A cellular automaton modelling class for analysing collective cell migration. PLoS Computational Biology, 2021, 17, e1009066.	1.5	14
35	On the Immunological Consequences of Conventionally Fractionated Radiotherapy. IScience, 2020, 23, 100897.	1.9	13
36	Model-based Comparison of Cell Density-dependent Cell Migration Strategies. Mathematical Modelling of Natural Phenomena, 2015, 10, 94-107.	0.9	10

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37	On the Impact of Chemo-Mechanically Induced Phenotypic Transitions in Gliomas. Cancers, 2019, 11, 716.	1.7	10
38	Statistical mechanics of cell decision-making: the cell migration force distribution. Journal of the Mechanical Behavior of Materials, 2018, 27, .	0.7	9
39	A least microenvironmental uncertainty principle (LEUP) as a generative model of collective cell migration mechanisms. Scientific Reports, 2020, 10, 22371.	1.6	8
40	Entropy-driven cell decision-making predicts â€˜fluid-to-solidâ€™ transition in multicellular systems. New Journal of Physics, 2020, 22, 123034.	1.2	7
41	Lattice-Gas Cellular Automaton Modeling of Emergent Behavior in Interacting Cell Populations. Understanding Complex Systems, 2010, , 301-331.	0.3	6
42	Modelling collective cell motion: are on- and off-lattice models equivalent?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190378.	1.8	6
43	Combining dynamic modeling with machine learning can be the key for the integration of mathematical and clinical oncology. Physics of Life Reviews, 2022, 40, 1-2.	1.5	6
44	Inferring the effect of interventions on COVID-19 transmission networks. Scientific Reports, 2021, 11, 21913.	1.6	5
45	A minimal modeling framework of radiation and immune system synergy to assist radiotherapy planning. Journal of Theoretical Biology, 2020, 486, 110099.	0.8	4
46	Close to Optimal Cell Sensing Ensures the Robustness of Tissue Differentiation Process: The Avian Photoreceptor Mosaic Case. Entropy, 2021, 23, 867.	1.1	4
47	Title is missing!. Acta Physica Polonica B, Proceedings Supplement, 2011, 4, 167.	0.0	4
48	The Extrinsic Noise Effect on Lateral Inhibition Differentiation Waves. ACM Transactions on Modeling and Computer Simulation, 2016, 26, 1-18.	0.6	3
49	Image analysis of immune cell patterns in the human mammary gland during the menstrual cycle refines lymphocytic lobulitis. Breast Cancer Research and Treatment, 2017, 164, 305-315.	1.1	3
50	Effect of Vascularization on Glioma Tumor Growth. , 2012, , 237-259.		3
51	Cellular Automaton Modeling of Tumor Invasion. , 2012, , 456-464.		2
52	Cellular Automaton Modeling of Tumor Invasion. , 2020, , 851-863.		2
53	Encoding of cellular positional information and maximum capacity of parallel coupled channels. , 2014, , .		1
54	A Novel Averaging Principle Provides Insights in the Impact of Intratumoral Heterogeneity on Tumor Progression. Mathematics, 2021, 9, 2530.	1.1	1

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55	Cellular Automaton Modeling of Tumor Invasion. , 2014, , 1-13.		1
56	Investigating the Physical Effects in Bacterial Therapies for Avascular Tumors. Frontiers in Microbiology, 2020, 11, 1083.	1.5	0
57	Lattice-Gas Cellular Automaton Models. , 2013, , 1106-1108.		0
58	Detecting Emergent Phenomena in Cellular Automata Using Temporal Description Logics. Lecture Notes in Computer Science, 2014, , 357-366.	1.0	0
59	Cellular Automaton Modeling of Tumor Invasion. , 2019, , 1-13.		0
60	On the Immunological Consequences of Conventionally Fractionated Radiotherapy: In silico Insights. SSRN Electronic Journal, 0, , .	0.4	0
61	Corrigendum to: Statistical mechanics of cell decision-making: the cell migration force distribution. Journal of the Mechanical Behavior of Materials, 2022, 31, 37-38.	0.7	0
62	Does company performance really improve following mergers? A pre-post analysis of differences in Greece. Problems and Perspectives in Management, 2022, 20, 543-553.	0.5	0