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	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
2	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	O
3	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	O
4	BIO-LGCA: A cellular automaton modelling class for analysing collective cell migration. PLoS Computational Biology, 2021, 17, e1009066.	1.5	14
5	Close to Optimal Cell Sensing Ensures the Robustness of Tissue Differentiation Process: The Avian Photoreceptor Mosaic Case. Entropy, 2021, 23, 867.	1.1	4
6	Improving personalized tumor growth predictions using a Bayesian combination of mechanistic modeling and machine learning. Communications Medicine, $2021,1,.$	1.9	15
7	A Novel Averaging Principle Provides Insights in the Impact of Intratumoral Heterogeneity on Tumor Progression. Mathematics, 2021, 9, 2530.	1.1	1
8	Inferring the effect of interventions on COVID-19 transmission networks. Scientific Reports, 2021, 11, 21913.	1.6	5
9	A minimal modeling framework of radiation and immune system synergy to assist radiotherapy planning. Journal of Theoretical Biology, 2020, 486, 110099.	0.8	4
10	Mechanical Control of Cell Proliferation Increases Resistance to Chemotherapeutic Agents. Physical Review Letters, 2020, 125, 128103.	2.9	42
11	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
12	A least microenvironmental uncertainty principle (LEUP) as a generative model of collective cell migration mechanisms. Scientific Reports, 2020, 10, 22371.	1.6	8
13	Investigating the Physical Effects in Bacterial Therapies for Avascular Tumors. Frontiers in Microbiology, 2020, $11,1083.$	1.5	O
14	On the Immunological Consequences of Conventionally Fractionated Radiotherapy. IScience, 2020, 23, 100897.	1.9	13
15	Entropy-driven cell decision-making predicts â€~fluid-to-solid' transition in multicellular systems. New Journal of Physics, 2020, 22, 123034.	1.2	7
16	Cellular Automaton Modeling of Tumor Invasion. , 2020, , 851-863.		2
17	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
18	On the Impact of Chemo-Mechanically Induced Phenotypic Transitions in Gliomas. Cancers, 2019, 11, 716.	1.7	10

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19	Cellular Automaton Modeling of Tumor Invasion. , 2019, , 1-13.		O
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	Statistical mechanics of cell decision-making: the cell migration force distribution. Journal of the Mechanical Behavior of Materials, 2018, 27, .	0.7	9
22	Therapeutic Potential of Bacteria against Solid Tumors. Cancer Research, 2017, 77, 1553-1563.	0.4	14
23	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
24	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
25	Cellular automaton models for time-correlated random walks: derivation and analysis. Scientific Reports, 2017, 7, 16952.	1.6	14
26	The biology and mathematical modelling of glioma invasion: a review. Journal of the Royal Society Interface, 2017, 14, 20170490.	1.5	156
27	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
28	The Extrinsic Noise Effect on Lateral Inhibition Differentiation Waves. ACM Transactions on Modeling and Computer Simulation, 2016, 26, 1-18.	0.6	3
29	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
30	Why one-size-fits-all vaso-modulatory interventions fail to control glioma invasion: in silico insights. Scientific Reports, 2016, 6, 37283.	1.6	47
31	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
32	<i>In silico</i> tumor control induced via alternating immunostimulating and immunosuppressive phases. Virulence, 2016, 7, 174-186.	1.8	15
33	Model-based Comparison of Cell Density-dependent Cell Migration Strategies. Mathematical Modelling of Natural Phenomena, 2015, 10, 94-107.	0.9	10
34	Cancer therapeutic potential of combinatorial immuno- and vasomodulatory interventions. Journal of the Royal Society Interface, 2015, 12, 20150439.	1.5	16
35	A Mechanistic Collective Cell Model for Epithelial Colony Growth and Contact Inhibition. Biophysical Journal, 2015, 109, 1347-1357.	0.2	24
36	An Emerging Allee Effect Is Critical for Tumor Initiation and Persistence. PLoS Computational Biology, 2015, 11, e1004366.	1.5	81

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37	Avian photoreceptor patterns represent a disordered hyperuniform solution to a multiscale packing problem. Physical Review E, 2014, 89, 022721.	0.8	154
38	Encoding of cellular positional information and maximum capacity of parallel coupled channels. , 2014, , .		1
39	Detecting Emergent Phenomena in Cellular Automata Using Temporal Description Logics. Lecture Notes in Computer Science, 2014, , 357-366.	1.0	0
40	Cellular Automaton Modeling of Tumor Invasion. , 2014, , 1-13.		1
41	In Silico Analysis of Cell Cycle Synchronisation Effects in Radiotherapy of Tumour Spheroids. PLoS Computational Biology, 2013, 9, e1003295.	1.5	39
42	Lattice-Gas Cellular Automaton Models. , 2013, , 1106-1108.		0
43	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
44	'Go or Grow': the key to the emergence of invasion in tumour progression?. Mathematical Medicine and Biology, 2012, 29, 49-65.	0.8	281
45	Density-dependent quiescence in glioma invasion: instability in a simple reaction–diffusion model for the migration/proliferation dichotomy. Journal of Biological Dynamics, 2012, 6, 54-71.	0.8	52
46	Integrative physical oncology. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 1-14.	6.6	29
47	Effect of Vascularization on Glioma Tumor Growth. , 2012, , 237-259.		3
48	Cellular Automaton Modeling of Tumor Invasion. , 2012, , 456-464.		2
49	Dynamic density functional theory of solid tumor growth: Preliminary models. AIP Advances, 2012, 2, 011210.	0.6	31
50	Identification of intrinsic in vitro cellular mechanisms for glioma invasion. Journal of Theoretical Biology, 2011, 287, 131-147.	0.8	85
51	Title is missing!. Acta Physica Polonica B, Proceedings Supplement, 2011, 4, 167.	0.0	4
52	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
53	Lattice-Gas Cellular Automaton Models for Biology: From Fluids to Cells. Acta Biotheoretica, 2010, 58, 329-340.	0.7	35
54	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

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55	Lattice-Gas Cellular Automaton Modeling of Emergent Behavior in Interacting Cell Populations. Understanding Complex Systems, 2010, , 301-331.	0.3	6
56	Studying the emergence of invasiveness in tumours using game theory. European Physical Journal B, 2008, 63, 393-397.	0.6	69
57	Evolutionary game theory elucidates the role of glycolysis in glioma progression and invasion. Cell Proliferation, 2008, 41, 980-987.	2.4	117
58	Cellular Automata as Microscopic Models of Cell Migration in Heterogeneous Environments. Current Topics in Developmental Biology, 2008, 81, 401-434.	1.0	66
59	Multiple discontinuities in nonhuman vocal tracts – A reply. Journal of Human Evolution, 2006, 50, 222-225.	1.3	42
60	Vocal production mechanisms in a non-human primate: morphological data and a model. Journal of Human Evolution, 2005, 48, 85-96.	1.3	120
61	MATHEMATICAL MODELLING OF GLIOBLASTOMA TUMOUR DEVELOPMENT: A REVIEW. Mathematical Models and Methods in Applied Sciences, 2005, 15, 1779-1794.	1.7	117
62	On the Immunological Consequences of Conventionally Fractionated Radiotherapy: In silico Insights. SSRN Electronic Journal, 0, , .	0.4	0