

Marco Scianna

List of Publications by Year in descending order

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44
papers

886
citations

566801

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28
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45
all docs

45
docs citations

45
times ranked

938
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of mathematical models for the formation of vascular networks. <i>Journal of Theoretical Biology</i> , 2013, 333, 174-209.	0.8	131
2	A Cellular Potts model simulating cell migration on and in matrix environments. <i>Mathematical Biosciences and Engineering</i> , 2013, 10, 235-261.	1.0	93
3	Multiscale Developments of the Cellular Potts Model. <i>Multiscale Modeling and Simulation</i> , 2012, 10, 342-382.	0.6	75
4	TRPM8 inhibits endothelial cell migration via a non-channel function by trapping the small GTPase Rap1. <i>Journal of Cell Biology</i> , 2017, 216, 2107-2130.	2.3	66
5	A multiscale hybrid approach for vasculogenesis and related potential blocking therapies. <i>Progress in Biophysics and Molecular Biology</i> , 2011, 106, 450-462.	1.4	51
6	Modeling the influence of nucleus elasticity on cell invasion in fiber networks and microchannels. <i>Journal of Theoretical Biology</i> , 2013, 317, 394-406.	0.8	42
7	A Cellular Potts Model of single cell migration in presence of durotaxis. <i>Mathematical Biosciences</i> , 2016, 275, 57-70.	0.9	34
8	Growing avascular tumours as elasto-plastic bodies by the theory of evolving natural configurations. <i>Mechanics Research Communications</i> , 2015, 68, 31-39.	1.0	32
9	Individual Cell-Based Model for In-Vitro Mesothelial Invasion of Ovarian Cancer. <i>Mathematical Modelling of Natural Phenomena</i> , 2010, 5, 203-223.	0.9	31
10	Modelling human perception processes in pedestrian dynamics: a hybrid approach. <i>Royal Society Open Science</i> , 2017, 4, 160561.	1.1	27
11	Adhesion and volume constraints via nonlocal interactions determine cell organisation and migration profiles. <i>Journal of Theoretical Biology</i> , 2018, 445, 75-91.	0.8	23
12	A cellular Potts model for the MMP-dependent and -independent cancer cell migration in matrix microtracks of different dimensions. <i>Computational Mechanics</i> , 2014, 53, 485-497.	2.2	22
13	Differentiated cell behavior: a multiscale approach using measure theory. <i>Journal of Mathematical Biology</i> , 2015, 71, 1049-1079.	0.8	20
14	Individual cell-based models of cell scatter of ARO and MLP-29 cells in response to hepatocyte growth factor. <i>Journal of Theoretical Biology</i> , 2009, 260, 151-160.	0.8	19
15	A cellular Potts model analyzing differentiated cell behavior during in vivo vascularization of a hypoxic tissue. <i>Computers in Biology and Medicine</i> , 2015, 63, 143-156.	3.9	16
16	A Hybrid Model Describing Different Morphologies of Tumor Invasion Fronts. <i>Mathematical Modelling of Natural Phenomena</i> , 2012, 7, 78-104.	0.9	15
17	Coherent modelling switch between pointwise and distributed representations of cell aggregates. <i>Journal of Mathematical Biology</i> , 2017, 74, 783-808.	0.8	15
18	A Measure-Theoretic Model for Collective Cell Migration and Aggregation. <i>Mathematical Modelling of Natural Phenomena</i> , 2015, 10, 4-35.	0.9	14

#	ARTICLE	IF	CITATIONS
19	A discrete mathematical model for the dynamics of a crowd of gazing pedestrians with and without an evolving environmental awareness. <i>Computational and Applied Mathematics</i> , 2017, 36, 1113-1141.	1.3	14
20	Multilevel complexity of calcium signaling: Modeling angiogenesis. <i>World Journal of Biological Chemistry</i> , 2012, 3, 121.	1.7	13
21	A Multiscale Hybrid Model for Pro-angiogenic Calcium Signals in a Vascular Endothelial Cell. <i>Bulletin of Mathematical Biology</i> , 2012, 74, 1253-1291.	0.9	10
22	An extended Cellular Potts Model analyzing a wound healing assay. <i>Computers in Biology and Medicine</i> , 2015, 62, 33-54.	3.9	10
23	A coherent modeling procedure to describe cell activation in biological systems. <i>Communications in Applied and Industrial Mathematics</i> , 2017, 8, 1-22.	0.6	10
24	A particle model analysing the behavioural rules underlying the collective flight of a bee swarm towards the new nest. <i>Journal of Biological Dynamics</i> , 2018, 12, 632-662.	0.8	9
25	Collective migration and patterning during early development of zebrafish posterior lateral line. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190385.	1.8	8
26	Modelling chase-and-run migration in heterogeneous populations. <i>Journal of Mathematical Biology</i> , 2020, 80, 423-456.	0.8	7
27	A Cellular Potts Model for Analyzing Cell Migration across Constraining Pillar Arrays. <i>Axioms</i> , 2021, 10, 32.	0.9	7
28	A discrete particle model reproducing collective dynamics of a bee swarm. <i>Computers in Biology and Medicine</i> , 2018, 93, 158-174.	3.9	6
29	An agent-based approach for modelling collective dynamics in animal groups distinguishing individual speed and orientation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190383.	1.8	6
30	A node-based version of the cellular Potts model. <i>Computers in Biology and Medicine</i> , 2016, 76, 94-112.	3.9	4
31	Kinesin-2 Controls the Motility of RAB5 Endosomes and Their Association with the Spindle in Mitosis. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2575.	1.8	4
32	Moving in a crowd: Human perception as a multiscale process. <i>Journal of Coupled Systems and Multiscale Dynamics</i> , 2016, 4, 25-29.	0.2	4
33	Multiscale model of tumor-derived capillary-like network formation. <i>Networks and Heterogeneous Media</i> , 2011, 6, 597-624.	0.5	4
34	A hybrid modeling environment to describe aggregates of cells heterogeneous for genotype and behavior with possible phenotypic transitions. <i>International Journal of Non-Linear Mechanics</i> , 2022, 144, 104063.	1.4	4
35	Mathematical Models of the Interaction of Cells and Cell Aggregates with the Extracellular Matrix. <i>Lecture Notes in Mathematics</i> , 2016, , 131-210.	0.1	3
36	An integro-differential non-local model for cell migration and its efficient numerical solution. <i>Mathematics and Computers in Simulation</i> , 2021, 180, 179-204.	2.4	3

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37	Computational Approaches for Translational Oncology: Concepts and Patents. Recent Patents on Anti-Cancer Drug Discovery, 2016, 11, 384-392.	0.8	3
38	A phenotype-structured model to reproduce the avascular growth of a tumor and its interaction with the surrounding environment. Journal of Theoretical Biology, 2022, 535, 110980.	0.8	3
39	Multi-level Mathematical Models for Cell Migration in Confined Environments. Springer Proceedings in Mathematics and Statistics, 2021, , 124-140.	0.1	2
40	A hybrid integro-differential model for the early development of the zebrafish posterior lateral line. Journal of Theoretical Biology, 2021, 514, 110578.	0.8	2
41	Hybrid Cellular Potts Model for Solid Tumor Growth. SIMAI Springer Series, 2012, , 205-224.	0.4	2
42	Relevance of Cell-ECM Interactions: From a Biological Perspective to the Mathematical Modeling. ITM Web of Conferences, 2015, 5, 00004.	0.4	0
43	An Innovative Assay for the Analysis of In Vitro Endothelial Remodeling: Experimental and Computational Evidence. Journal of Cellular Physiology, 2017, 232, 243-248.	2.0	0
44	Extension of tumor fingers: A comparison between an individual-cell based model and a measure theoretic approach. Communications in Applied and Industrial Mathematics, 2019, 10, 54-69.	0.6	0