Marco Scianna

List of Publications by Year
in descending order

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44	886	567281	501196
papers	citations	15	28
		h-index	g-index

45	45	45	938
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of mathematical models for the formation of vascular networks. Journal of Theoretical Biology, 2013, 333, 174-209.	1.7	131
2	A Cellular Potts model simulating cell migration on and in matrix environments. Mathematical Biosciences and Engineering, 2013, 10, 235-261.	1.9	93
3	Multiscale Developments of the Cellular Potts Model. Multiscale Modeling and Simulation, 2012, 10, 342-382.	1.6	75
4	TRPM8 inhibits endothelial cell migration via a non-channel function by trapping the small GTPase Rap1. Journal of Cell Biology, 2017, 216, 2107-2130.	5.2	66
5	A multiscale hybrid approach for vasculogenesis and related potential blocking therapies. Progress in Biophysics and Molecular Biology, 2011, 106, 450-462.	2.9	51
6	Modeling the influence of nucleus elasticity on cell invasion in fiber networks and microchannels. Journal of Theoretical Biology, 2013, 317, 394-406.	1.7	42
7	A Cellular Potts Model of single cell migration in presence of durotaxis. Mathematical Biosciences, 2016, 275, 57-70.	1.9	34
8	Growing avascular tumours as elasto-plastic bodies by the theory of evolving natural configurations. Mechanics Research Communications, 2015, 68, 31-39.	1.8	32
9	Individual Cell-Based Model for In-Vitro Mesothelial Invasion of Ovarian Cancer. Mathematical Modelling of Natural Phenomena, 2010, 5, 203-223.	2.4	31
10	Modelling human perception processes in pedestrian dynamics: a hybrid approach. Royal Society Open Science, 2017, 4, 160561.	2.4	27
11	Adhesion and volume constraints via nonlocal interactions determine cell organisation and migration profiles. Journal of Theoretical Biology, 2018, 445, 75-91.	1.7	23
12	A cellular Potts model for the MMP-dependent and -independent cancer cell migration in matrix microtracks of different dimensions. Computational Mechanics, 2014, 53, 485-497.	4.0	22
13	Differentiated cell behavior: a multiscale approach using measure theory. Journal of Mathematical Biology, 2015, 71, 1049-1079.	1.9	20
14	Individual cell-based models of cell scatter of ARO and MLP-29 cells in response to hepatocyte growth factor. Journal of Theoretical Biology, 2009, 260, 151-160.	1.7	19
15	A cellular Potts model analyzing differentiated cell behavior during in vivo vascularization of a hypoxic tissue. Computers in Biology and Medicine, 2015, 63, 143-156.	7.0	16
16	A Hybrid Model Describing Different Morphologies of Tumor Invasion Fronts. Mathematical Modelling of Natural Phenomena, 2012, 7, 78-104.	2.4	15
17	Coherent modelling switch between pointwise and distributed representations of cell aggregates. Journal of Mathematical Biology, 2017, 74, 783-808.	1.9	15
18	A Measure-Theoretic Model for Collective Cell Migration and Aggregation. Mathematical Modelling of Natural Phenomena, 2015, 10, 4-35.	2.4	14

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19	A discrete mathematical model for the dynamics of a crowd of gazing pedestrians with and without an evolving environmental awareness. Computational and Applied Mathematics, 2017, 36, 1113-1141.	1.3	14
20	Multilevel complexity of calcium signaling: Modeling angiogenesis. World Journal of Biological Chemistry, 2012, 3, 121.	4.3	13
21	A Multiscale Hybrid Model for Pro-angiogenic Calcium Signals in a Vascular Endothelial Cell. Bulletin of Mathematical Biology, 2012, 74, 1253-1291.	1.9	10
22	An extended Cellular Potts Model analyzing a wound healing assay. Computers in Biology and Medicine, 2015, 62, 33-54.	7.0	10
23	A coherent modeling procedure to describe cell activation in biological systems. Communications in Applied and Industrial Mathematics, 2017, 8, 1-22.	0.3	10
24	A particle model analysing the behavioural rules underlying the collective flight of a bee swarm towards the new nest. Journal of Biological Dynamics, 2018, 12, 632-662.	1.7	9
25	Collective migration and patterning during early development of zebrafish posterior lateral line. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190385.	4.0	8
26	Modelling chase-and-run migration in heterogeneous populations. Journal of Mathematical Biology, 2020, 80, 423-456.	1.9	7
27	A Cellular Potts Model for Analyzing Cell Migration across Constraining Pillar Arrays. Axioms, 2021, 10, 32.	1.9	7
28	A discrete particle model reproducing collective dynamics of a bee swarm. Computers in Biology and Medicine, 2018, 93, 158-174.	7.0	6
29	An agent-based approach for modelling collective dynamics in animal groups distinguishing individual speed and orientation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190383.	4.0	6
30	A node-based version of the cellular Potts model. Computers in Biology and Medicine, 2016, 76, 94-112.	7.0	4
31	Kinesin-2 Controls the Motility of RAB5 Endosomes and Their Association with the Spindle in Mitosis. International Journal of Molecular Sciences, 2018, 19, 2575.	4.1	4
32	Moving in a crowd: Human perception as a multiscale process. Journal of Coupled Systems and Multiscale Dynamics, 2016, 4, 25-29.	0.2	4
33	Multiscale model of tumor-derived capillary-like network formation. Networks and Heterogeneous Media, 2011, 6, 597-624.	1.1	4
34	A hybrid modeling environment to describe aggregates of cells heterogeneous for genotype and behavior with possible phenotypic transitions. International Journal of Non-Linear Mechanics, 2022, 144, 104063.	2.6	4
35	Mathematical Models of the Interaction of Cells and Cell Aggregates with the Extracellular Matrix. Lecture Notes in Mathematics, 2016, , 131-210.	0.2	3
36	An integro-differential non-local model for cell migration and its efficient numerical solution. Mathematics and Computers in Simulation, 2021, 180, 179-204.	4.4	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.	1.6	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.	1.7	3
39	Multi-level Mathematical Models for Cell Migration in Confined Environments. Springer Proceedings in Mathematics and Statistics, 2021, , 124-140.	0.2	2
40	A hybrid integro-differential model for the early development of the zebrafish posterior lateral line. Journal of Theoretical Biology, 2021, 514, 110578.	1.7	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.	0.5	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.	4.1	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.	0.3	0