

# Marco Scianna

## List of Publications by Year in descending order

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44  
papers

886  
citations

567281  
15  
h-index

501196  
28  
g-index

45  
all docs

45  
docs citations

45  
times ranked

938  
citing authors

#	ARTICLE	IF	CITATIONS
1	A phenotype-structured model to reproduce the avascular growth of a tumor and its interaction with the surrounding environment. <i>Journal of Theoretical Biology</i> , 2022, 535, 110980.	1.7	3
2	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.	2.6	4
3	Multi-level Mathematical Models for Cell Migration in Confined Environments. <i>Springer Proceedings in Mathematics and Statistics</i> , 2021, , 124-140.	0.2	2
4	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.	4.4	3
5	A Cellular Potts Model for Analyzing Cell Migration across Constraining Pillar Arrays. <i>Axioms</i> , 2021, 10, 32.	1.9	7
6	A hybrid integro-differential model for the early development of the zebrafish posterior lateral line. <i>Journal of Theoretical Biology</i> , 2021, 514, 110578.	1.7	2
7	Modelling chase-and-run migration in heterogeneous populations. <i>Journal of Mathematical Biology</i> , 2020, 80, 423-456.	1.9	7
8	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.	4.0	8
9	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.	4.0	6
10	Extension of tumor fingers: A comparison between an individual-cell based model and a measure theoretic approach. <i>Communications in Applied and Industrial Mathematics</i> , 2019, 10, 54-69.	0.3	0
11	A discrete particle model reproducing collective dynamics of a bee swarm. <i>Computers in Biology and Medicine</i> , 2018, 93, 158-174.	7.0	6
12	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.	1.7	9
13	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.	4.1	4
14	Adhesion and volume constraints via nonlocal interactions determine cell organisation and migration profiles. <i>Journal of Theoretical Biology</i> , 2018, 445, 75-91.	1.7	23
15	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
16	An Innovative Assay for the Analysis of In Vitro Endothelial Remodeling: Experimental and Computational Evidence. <i>Journal of Cellular Physiology</i> , 2017, 232, 243-248.	4.1	0
17	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.	5.2	66
18	Modelling human perception processes in pedestrian dynamics: a hybrid approach. <i>Royal Society Open Science</i> , 2017, 4, 160561.	2.4	27

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19	Coherent modelling switch between pointwise and distributed representations of cell aggregates. <i>Journal of Mathematical Biology</i> , 2017, 74, 783-808.	1.9	15
20	A coherent modeling procedure to describe cell activation in biological systems. <i>Communications in Applied and Industrial Mathematics</i> , 2017, 8, 1-22.	0.3	10
21	A node-based version of the cellular Potts model. <i>Computers in Biology and Medicine</i> , 2016, 76, 94-112.	7.0	4
22	Mathematical Models of the Interaction of Cells and Cell Aggregates with the Extracellular Matrix. <i>Lecture Notes in Mathematics</i> , 2016, , 131-210.	0.2	3
23	A Cellular Potts Model of single cell migration in presence of durotaxis. <i>Mathematical Biosciences</i> , 2016, 275, 57-70.	1.9	34
24	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
25	Computational Approaches for Translational Oncology: Concepts and Patents. <i>Recent Patents on Anti-Cancer Drug Discovery</i> , 2016, 11, 384-392.	1.6	3
26	Relevance of Cell-ECM Interactions: From a Biological Perspective to the Mathematical Modeling. <i>ITM Web of Conferences</i> , 2015, 5, 00004.	0.5	0
27	A Measure-Theoretic Model for Collective Cell Migration and Aggregation. <i>Mathematical Modelling of Natural Phenomena</i> , 2015, 10, 4-35.	2.4	14
28	Growing avascular tumours as elasto-plastic bodies by the theory of evolving natural configurations. <i>Mechanics Research Communications</i> , 2015, 68, 31-39.	1.8	32
29	An extended Cellular Potts Model analyzing a wound healing assay. <i>Computers in Biology and Medicine</i> , 2015, 62, 33-54.	7.0	10
30	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.	7.0	16
31	Differentiated cell behavior: a multiscale approach using measure theory. <i>Journal of Mathematical Biology</i> , 2015, 71, 1049-1079.	1.9	20
32	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.	4.0	22
33	Modeling the influence of nucleus elasticity on cell invasion in fiber networks and microchannels. <i>Journal of Theoretical Biology</i> , 2013, 317, 394-406.	1.7	42
34	A review of mathematical models for the formation of vascular networks. <i>Journal of Theoretical Biology</i> , 2013, 333, 174-209.	1.7	131
35	A Cellular Potts model simulating cell migration on and in matrix environments. <i>Mathematical Biosciences and Engineering</i> , 2013, 10, 235-261.	1.9	93
36	A Hybrid Model Describing Different Morphologies of Tumor Invasion Fronts. <i>Mathematical Modelling of Natural Phenomena</i> , 2012, 7, 78-104.	2.4	15

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37	Multiscale Developments of the Cellular Potts Model. Multiscale Modeling and Simulation, 2012, 10, 342-382.	1.6	75
38	Multilevel complexity of calcium signaling: Modeling angiogenesis. World Journal of Biological Chemistry, 2012, 3, 121.	4.3	13
39	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
40	Hybrid Cellular Potts Model for Solid Tumor Growth. SIMAI Springer Series, 2012, , 205-224.	0.4	2
41	A multiscale hybrid approach for vasculogenesis and related potential blocking therapies. Progress in Biophysics and Molecular Biology, 2011, 106, 450-462.	2.9	51
42	Multiscale model of tumor-derived capillary-like network formation. Networks and Heterogeneous Media, 2011, 6, 597-624.	1.1	4
43	Individual Cell-Based Model for In-Vitro Mesothelial Invasion of Ovarian Cancer. Mathematical Modelling of Natural Phenomena, 2010, 5, 203-223.	2.4	31
44	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