Pascal R Buenzli

List of Publications by Year
in descending order

39 papers	1,030 citations	471371 17 h-index	454834 30 g-index
49 all docs	49 docs citations	49 times ranked	967 citing authors

#	Article	IF	Citations
1	Interpreting how nonlinear diffusion affects the fate of bistable populations using a discrete modelling framework. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	1.0	6
2	Travelling waves in a free boundary mechanobiological model of an epithelial tissue. Applied Mathematics Letters, 2021, 111, 106636.	1.5	10
3	The role of mechanical interactions in EMT. Physical Biology, 2021, 18, 046001.	0.8	9
4	Modelling cell guidance and curvature control in evolving biological tissues. Journal of Theoretical Biology, 2021, 520, 110658.	0.8	9
5	A quantitative analysis of cell bridging kinetics on a scaffold using computer vision algorithms. Acta Biomaterialia, 2021, 136, 429-440.	4.1	8
6	Model-based data analysis of tissue growth in thin 3D printed scaffolds. Journal of Theoretical Biology, 2021, 528, 110852.	0.8	23
7	A levelâ€set method for the evolution of cells and tissue during curvatureâ€controlled growth. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3279.	1.0	13
8	Mechanical Cell Competition in Heterogeneous Epithelial Tissues. Bulletin of Mathematical Biology, 2020, 82, 130.	0.9	15
9	Cell proliferation and migration explain pore bridging dynamics in 3D printed scaffolds of different pore size. Acta Biomaterialia, 2020, 114, 285-295.	4.1	61
10	Mineral density differences between femoral cortical bone and trabecular bone are not explained by turnover rate alone. Bone Reports, 2020, 13, 100731.	0.2	9
11	Modeling Osteocyte Network Formation: Healthy and Cancerous Environments. Frontiers in Bioengineering and Biotechnology, 2020, 8, 757.	2.0	4
12	A free boundary mechanobiological model of epithelial tissues. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200528.	1.0	8
13	A one-dimensional individual-based mechanical model of cell movement in heterogeneous tissues and its coarse-grained approximation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180838.	1.0	25
14	Osteoblasts infill irregular pores under curvature and porosity controls: a hypothesis-testing analysis of cell behaviours. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1357-1371.	1.4	22
15	Late stages of mineralization and their signature on the bone mineral density distribution. Connective Tissue Research, 2018, 59, 74-80.	1.1	8
16	Differing Effects of Parathyroid Hormone, Alendronate, and Odanacatib on Bone Formation and on the Mineralization Process in Intracortical and Endocortical Bone of Ovariectomized Rabbits. Calcified Tissue International, 2018, 103, 625-637.	1.5	13
17	Modeling the Effect of Curvature on the Collective Behavior of Cells Growing New Tissue. Biophysical Journal, 2017, 112, 193-204.	0.2	39
18	Governing Equations of Tissue Modelling and Remodelling: A Unified Generalised Description of Surface and Bulk Balance. PLoS ONE, 2016, 11, e0152582.	1.1	13

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19	Response to â€œLetter to the Editor: On osteocyte density in the human bodyâ€ Bone, 2016, 88, 73.	1.4	0
20	Towards a cell-based mechanostat theory of bone: the need to account for osteocyte desensitisation and osteocyte replacement. Journal of Biomechanics, 2016, 49, 2600-2606.	0.9	17
21	A multiscale mechanobiological model of bone remodelling predicts site-specific bone loss in the femur during osteoporosis and mechanical disuse. Biomechanics and Modeling in Mechanobiology, 2016, 15, 43-67.	1.4	48
22	Osteocytes as a record of bone formation dynamics: A mathematical model of osteocyte generation in bone matrix. Journal of Theoretical Biology, 2015, 364, 418-427.	0.8	24
23	Quantifying the osteocyte network in the human skeleton. Bone, 2015, 75, 144-150.	1.4	226
24	The relationship between porosity and specific surface in human cortical bone is subject specific. Bone, 2015, 72, 109-117.	1.4	34
25	Mathematical Modelling of Basic Multicellular Units: The Functional Units of Bone Remodeling. , 2015, , 45-74.		0
26	Bone refilling in cortical basic multicellular units: insights into tetracycline double labelling from a computational model. Biomechanics and Modeling in Mechanobiology, 2014, 13, 185-203.	1.4	24
27	The influence of bone surface availability in bone remodellingâ€"A mathematical model including coupled geometrical and biomechanical regulations of bone cells. Engineering Structures, 2013, 47, 134-147.	2.6	63
28	Endocortical bone loss in osteoporosis: the role of bone surface availability. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 1307-1322.	1.0	27
29	Investigation of bone resorption within a cortical basic multicellular unit using a lattice-based computational model. Bone, 2012, 50, 378-389.	1.4	24
30	A Systems Approach to Understanding Bone Cell Interactions in Health and Disease. , 2012, , .		11
31	Modelling the anabolic response of bone using a cell population model. Journal of Theoretical Biology, 2012, 307, 42-52.	0.8	43
32	Spatio-temporal structure of cell distribution in cortical Bone Multicellular Units: A mathematical model. Bone, 2011, 48, 918-926.	1.4	54
33	Computational Modeling of Interactions between Multiple Myeloma and the Bone Microenvironment. PLoS ONE, 2011, 6, e27494.	1.1	37
34	Fluctuation-induced self-force and violation of action-reaction in a nonequilibrium steady state fluid. Journal of Physics: Conference Series, 2009, 161, 012036.	0.3	4
35	Violation of the action-reaction principle and self-forces induced by nonequilibrium fluctuations. Physical Review E, 2008, 78, 020102.	0.8	25
36	Thermal quantum electrodynamics of nonrelativistic charged fluids. Physical Review E, 2007, 75, 041125.	0.8	5

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37	Equilibrium correlations in charged fluids coupled to the radiation field. Physical Review E, 2006, 73, 036113.	0.8	7
38	Microscopic Origin of Universality in Casimir Forces. Journal of Statistical Physics, 2005, 119, 273-307.	0.5	8
39	The Casimir force at high temperature. Europhysics Letters, 2005, 72, 42-48.	0.7	45