

# Lutz Brusch

## List of Publications by Year in descending order

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42  
papers

1,503  
citations

430874

18  
h-index

345221

36  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2112  
citing authors

#	ARTICLE	IF	CITATIONS
1	BioSimulators: a central registry of simulation engines and services for recommending specific tools. Nucleic Acids Research, 2022, 50, W108-W114.	14.5	11
2	An environment for sustainable research software in Germany and beyond: current state, open challenges, and call for action. F1000Research, 2020, 9, 295.	1.6	21
3	An environment for sustainable research software in Germany and beyond: current state, open challenges, and call for action. F1000Research, 2020, 9, 295.	1.6	16
4	Quantification of nematic cell polarity in three-dimensional tissues. PLoS Computational Biology, 2020, 16, e1008412.	3.2	6
5	A modular framework for multiscale, multicellular, spatiotemporal modeling of acute primary viral infection and immune response in epithelial tissues and its application to drug therapy timing and effectiveness. PLoS Computational Biology, 2020, 16, e1008451.	3.2	40
6	Bile canaliculi remodeling activates $\gamma$ -YAP via the actin cytoskeleton during liver regeneration. Molecular Systems Biology, 2020, 16, e8985.	7.2	29
7	Title is missing!. , 2020, 16, e1008451.		0
8	Title is missing!. , 2020, 16, e1008451.		0
9	Title is missing!. , 2020, 16, e1008451.		0
10	Title is missing!. , 2020, 16, e1008451.		0
11	Wet-tip versus dry-tip regimes of osmotically driven fluid flow. Scientific Reports, 2019, 9, 4528.	3.3	3
12	A Lattice-Gas Cellular Automaton Model for Discrete Excitable Media. The Frontiers Collection, 2019, , 253-264.	0.2	7
13	Dynamic Polarization of the Multiciliated Planarian Epidermis between Body Plan Landmarks. Developmental Cell, 2019, 51, 526-542.e6.	7.0	20
14	Three-dimensional spatially resolved geometrical and functional models of human liver tissue reveal new aspects of NAFLD progression. Nature Medicine, 2019, 25, 1885-1893.	30.7	58
15	Liquid-crystal organization of liver tissue. ELife, 2019, 8, .	6.0	42
16	A Predictive 3D Multi-Scale Model of Biliary Fluid Dynamics in the Liver Lobule. Cell Systems, 2017, 4, 277-290.e9.	6.2	79
17	A dynamically diluted alignment model reveals the impact of cell turnover on the plasticity of tissue polarity patterns. Journal of the Royal Society Interface, 2017, 14, 20170466.	3.4	6
18	pSSAlib: The partial-propensity stochastic chemical network simulator. PLoS Computational Biology, 2017, 13, e1005865.	3.2	8

#	ARTICLE	IF	CITATIONS
19	Accelerated cell divisions drive the outgrowth of the regenerating spinal cord in axolotls. <i>ELife</i> , 2016, 5, .	6.0	32
20	Cellular dynamics underlying regeneration of appropriate segment number during axolotl tail regeneration. <i>BMC Developmental Biology</i> , 2015, 15, 48.	2.1	15
21	Mathematical modelling of fluid transport and its regulation at multiple scales. <i>BioSystems</i> , 2015, 130, 1-10.	2.0	6
22	Morpheus: a user-friendly modeling environment for multiscale and multicellular systems biology. <i>Bioinformatics</i> , 2014, 30, 1331-1332.	4.1	235
23	Mathematical Modeling of Regenerative Processes. <i>Current Topics in Developmental Biology</i> , 2014, 108, 283-317.	2.2	21
24	Chevron formation of the zebrafish muscle segments. <i>Journal of Experimental Biology</i> , 2014, 217, 3870-82.	1.7	18
25	Phosphorylation of the Smo tail is controlled by membrane localization and is dispensable for clustering. <i>Journal of Cell Science</i> , 2013, 126, 4684-97.	2.0	14
26	On the role of lateral stabilization during early patterning in the pancreas. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20120766.	3.4	29
27	A General Theoretical Framework to Infer Endosomal Network Dynamics from Quantitative Image Analysis. <i>Current Biology</i> , 2012, 22, 1381-1390.	3.9	69
28	Predicting Pancreas Cell Fate Decisions and Reprogramming with a Hierarchical Multi-Attractor Model. <i>PLoS ONE</i> , 2011, 6, e14752.	2.5	63
29	Parameter estimation with a novel gradient-based optimization method for biological lattice-gas cellular automaton models. <i>Journal of Mathematical Biology</i> , 2011, 63, 173-200.	1.9	15
30	A model for cyst lumen expansion and size regulation via fluid secretion. <i>Journal of Theoretical Biology</i> , 2010, 264, 1077-1088.	1.7	19
31	Ligand-Specific c-Fos Expression Emerges from the Spatiotemporal Control of ErbB Network Dynamics. <i>Cell</i> , 2010, 141, 884-896.	28.9	217
32	The coherence of the vesicle theory of protein secretion. <i>Journal of Theoretical Biology</i> , 2008, 252, 370-373.	1.7	1
33	Membrane identity and GTPase cascades regulated by toggle and cut-out switches. <i>Molecular Systems Biology</i> , 2008, 4, 206.	7.2	117
34	Mechanism for Spiral Wave Breakup in Excitable and Oscillatory Media. <i>Physical Review Letters</i> , 2004, 92, 119801.	7.8	15
35	Antispiral Waves as Sources in Oscillatory Reaction-Diffusion Media. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14733-14740.	2.6	50
36	Breakup of spiral waves caused by radial dynamics: Eckhaus and finite wavenumber instabilities. <i>New Journal of Physics</i> , 2004, 6, 5-5.	2.9	56

#	ARTICLE	IF	CITATIONS
37	Nonlinear analysis of the Eckhaus instability: modulated amplitude waves and phase chaos with nonzero average phase gradient. <i>Physica D: Nonlinear Phenomena</i> , 2003, 174, 152-167.	2.8	18
38	Doppler Effect of Nonlinear Waves and Superspirals in Oscillatory Media. <i>Physical Review Letters</i> , 2003, 91, 108302.	7.8	19
39	Fold-Hopf Bursting in a Model for Calcium Signal Transduction. <i>Zeitschrift Fur Physikalische Chemie</i> , 2002, 216, .	2.8	13
40	Modulated amplitude waves and defect formation in the one-dimensional complex Ginzburg-Landau equation. <i>Physica D: Nonlinear Phenomena</i> , 2001, 160, 127-148.	2.8	51
41	Modulated Amplitude Waves and the Transition from Phase to Defect Chaos. <i>Physical Review Letters</i> , 2000, 85, 86-89.	7.8	59
42	Simplified replica treatment of various random-energy and random-field models with confinement potential. <i>Physical Review E</i> , 1999, 60, 3573-3579.	2.1	1