Christian A Yates

List of Publications by Year
in descending order

54	1,162	516561 16	454834 30
papers	citations	h-index	g-index

66	66	66	1243
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Misinformation can prevent the suppression of epidemics. Journal of the Royal Society Interface, 2022, 19, 20210668.	1.5	5
2	Critical weaknesses in shielding strategies for COVID-19. PLOS Global Public Health, 2022, 2, e0000298.	0.5	9
3	Pleiotropic constraints promote the evolution of cooperation in cellular groups. PLoS Biology, 2022, 20, e3001626.	2.6	5
4	Equivalence framework for an age-structured multistage representation of the cell cycle. Physical Review E, 2022, 105, .	0.8	2
5	Pigment Patterning in Teleosts. , 2021, , 247-292.		3
6	Synchronized oscillations in growing cell populations are explained by demographic noise. Biophysical Journal, 2021, 120, 1314-1322.	0.2	6
7	Incorporating domain growth into hybrid methods for reactionâ€"diffusion systems. Journal of the Royal Society Interface, 2021, 18, 20201047.	1.5	4
8	The blending region hybrid framework for the simulation of stochastic reactionâ€"diffusion processes. Journal of the Royal Society Interface, 2020, 17, 20200563.	1.5	2
9	A theoretical framework for transitioning from patient-level to population-scale epidemiological dynamics: influenza A as a case study. Journal of the Royal Society Interface, 2020, 17, 20200230.	1.5	26
10	A quantitative modelling approach to zebrafish pigment pattern formation. ELife, 2020, 9, .	2.8	35
11	Pulling in models of cell migration. Physical Review E, 2019, 99, 062413.	0.8	2
12	Unbiased on-lattice domain growth. Physical Review E, 2019, 100, 063307.	0.8	1
13	The invasion speed of cell migration models with realistic cell cycle time distributions. Journal of Theoretical Biology, 2019, 481, 91-99.	0.8	15
14	Spatially extended hybrid methods: a review. Journal of the Royal Society Interface, 2018, 15, 20170931.	1.5	32
15	Modeling persistence of motion in a crowded environment: The diffusive limit of excluding velocity-jump processes. Physical Review E, 2018, 97, 032416.	0.8	8
16	The auxiliary region method: a hybrid method for coupling PDE- and Brownian-based dynamics for reactionâ€"diffusion systems. Royal Society Open Science, 2018, 5, 180920.	1.1	13
17	Robustly simulating biochemical reaction kinetics using multi-level Monte Carlo approaches. Journal of Computational Physics, 2018, 375, 1401-1423.	1.9	3
18	Stochastic and Deterministic Modeling of Cell Migration. Handbook of Statistics, 2018, 39, 37-91.	0.4	10

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19	Pair correlation functions for identifying spatial correlation in discrete domains. Physical Review E, 2018, 97, 062104.	0.8	17
20	Efficient parameter sensitivity computation for spatially extended reaction networks. Journal of Chemical Physics, 2017, 146, 044106.	1.2	3
21	Zebrafish adult pigment stem cells are multipotent and form pigment cells by a progressive fate restriction process. BioEssays, 2017, 39, 1600234.	1.2	12
22	Variable species densities are induced by volume exclusion interactions upon domain growth. Physical Review E, 2017, 95, 032416.	0.8	5
23	Using approximate Bayesian computation to quantify cellâ€"cell adhesion parameters in a cell migratory process. Npj Systems Biology and Applications, 2017, 3, 9.	1.4	18
24	The effect of domain growth on spatial correlations. Physica A: Statistical Mechanics and Its Applications, 2017, 466, 334-345.	1.2	7
25	A Multi-stage Representation of Cell Proliferation as a Markov Process. Bulletin of Mathematical Biology, 2017, 79, 2905-2928.	0.9	70
26	How domain growth is implemented determines the long-term behavior of a cell population through its effect on spatial correlations. Physical Review E, 2016, 94, 012408.	0.8	14
27	A hybrid algorithm for coupling partial differential equation and compartment-based dynamics. Journal of the Royal Society Interface, 2016, 13, 20160335.	1.5	13
28	Extending the Multi-level Method for the Simulation of Stochastic Biological Systems. Bulletin of Mathematical Biology, 2016, 78, 1640-1677.	0.9	12
29	Coupling volume-excluding compartment-based models of diffusion at different scales: Voronoi and pseudo-compartment approaches. Journal of the Royal Society Interface, 2016, 13, 20160336.	1.5	8
30	Hard-sphere interactions in velocity-jump models. Physical Review E, 2016, 94, 012129.	0.8	7
31	Reconciling diverse mammalian pigmentation patterns with a fundamental mathematical model. Nature Communications, 2016, 7, 10288.	5.8	53
32	Incorporating pushing in exclusion-process models of cell migration. Physical Review E, 2015, 91, 052711.	0.8	15
33	Reconciling transport models across scales: The role of volume exclusion. Physical Review E, 2015, 92, 040701.	0.8	9
34	Onset of collective motion in locusts is captured by a minimal model. Physical Review E, 2015, 92, 052708.	0.8	18
35	Publisher's Note: Incorporating pushing in exclusion-process models of cell migration [Phys. Rev. E91, 052711 (2015)]. Physical Review E, 2015, 91, .	0.8	1
36	The pseudo-compartment method for coupling partial differential equation and compartment-based models of diffusion. Journal of the Royal Society Interface, 2015, 12, 20150141.	1.5	24

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37	Mathematical modelling of turning delays in swarm robotics. IMA Journal of Applied Mathematics, 2015, 80, 1454-1474.	0.8	16
38	Deriving appropriate boundary conditions, and accelerating position-jump simulations, of diffusion using non-local jumping. Physical Biology, 2015, 12, 016006.	0.8	11
39	Inference of cellâ€"cell interactions from population density characteristics and cell trajectories on static and growing domains. Mathematical Biosciences, 2015, 264, 108-118.	0.9	15
40	Ten Simple Rules for a Successful Cross-Disciplinary Collaboration. PLoS Computational Biology, 2015, 11, e1004214.	1.5	46
41	An adaptive multi-level simulation algorithm for stochastic biological systems. Journal of Chemical Physics, 2015, 142, 024113.	1.2	21
42	Ten Simple Rules for Effective Computational Research. PLoS Computational Biology, 2014, 10, e1003506.	1.5	47
43	Discrete and continuous models for tissue growth and shrinkage. Journal of Theoretical Biology, 2014, 350, 37-48.	0.8	26
44	Recycling random numbers in the stochastic simulation algorithm. Journal of Chemical Physics, 2013, 138, 094103.	1.2	14
45	Novel Methods for Analysing Bacterial Tracks Reveal Persistence in Rhodobacter sphaeroides. PLoS Computational Biology, 2013, 9, e1003276.	1.5	19
46	Importance of the Voronoi domain partition for position-jump reaction-diffusion processes on nonuniform rectilinear lattices. Physical Review E, 2013, 88, 054701.	0.8	6
47	Isotropic model for cluster growth on a regular lattice. Physical Review E, 2013, 88, 023304.	0.8	4
48	Going from microscopic to macroscopic on nonuniform growing domains. Physical Review E, 2012, 86, 021921.	0.8	37
49	Simplified Multitarget Tracking Using the PHD Filter for Microscopic Video Data. IEEE Transactions on Circuits and Systems for Video Technology, 2012, 22, 702-713.	5.6	32
50	Modelling Cell Migration and Adhesion During Development. Bulletin of Mathematical Biology, 2012, 74, 2793-2809.	0.9	21
51	Look before you leap: A confidence-based method for selecting species criticality while avoiding negative populations in Ï„-leaping. Journal of Chemical Physics, 2011, 134, 084109.	1.2	10
52	From Microscopic to Macroscopic Descriptions of Cell Migration on Growing Domains. Bulletin of Mathematical Biology, 2010, 72, 719-762.	0.9	87
53	Ergodic directional switching in mobile insect groups. Physical Review E, 2010, 82, 011926.	0.8	14
54	Inherent noise can facilitate coherence in collective swarm motion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5464-5469.	3.3	240