Chad M Topaz

List of Publications by Year
in descending order

34 papers	1,788 citations	394421 19 h-index	454955 30 g-index
44 all docs	44 docs citations	44 times ranked	1143 citing authors

#	Article	IF	Citations
1	Swarming Patterns in a Two-Dimensional Kinematic Model for Biological Groups. SIAM Journal on Applied Mathematics, 2004, 65, 152-174.	1.8	384
2	A Nonlocal Continuum Model for Biological Aggregation. Bulletin of Mathematical Biology, 2006, 68, 1601-1623.	1.9	340
3	Topological Data Analysis of Biological Aggregation Models. PLoS ONE, 2015, 10, e0126383.	2.5	120
4	A model for rolling swarms of locusts. European Physical Journal: Special Topics, 2008, 157, 93-109.	2.6	111
5	A Primer of Swarm Equilibria. SIAM Journal on Applied Dynamical Systems, 2011, 10, 212-250.	1.6	93
6	Locust Dynamics: Behavioral Phase Change and Swarming. PLoS Computational Biology, 2012, 8, e1002642.	3.2	83
7	Gender Representation on Journal Editorial Boards in the Mathematical Sciences. PLoS ONE, 2016, 11, e0161357.	2.5	71
8	Two-frequency forced Faraday waves: weakly damped modes and pattern selection. Physica D: Nonlinear Phenomena, 2000, 143, 205-225.	2.8	68
9	Asymptotic Dynamics of Attractive-Repulsive Swarms. SIAM Journal on Applied Dynamical Systems, 2009, 8, 880-908.	1.6	60
10	Nonlocal Aggregation Models: A Primer of Swarm Equilibria. SIAM Review, 2013, 55, 709-747.	9.5	51
11	Flipped Calculus: A Study of Student Performance and Perceptions. Primus, 2015, 25, 847-860.	0.5	39
12	Blogs and Wikis as Instructional Tools: A Social Software Adaptation of Just-in-Time Teaching. College Teaching, 2009, 57, 105-110.	0.6	38
13	Multifrequency control of Faraday wave patterns. Physical Review E, 2004, 70, 066206.	2.1	35
14	Diversity of artists in major U.S. museums. PLoS ONE, 2019, 14, e0212852.	2.5	32
15	Analyzing collective motion with machine learning and topology. Chaos, 2019, 29, 123125.	2.5	31
16	Pattern Control via Multifrequency Parametric Forcing. Physical Review Letters, 2004, 93, 034502.	7.8	30
17	Resonances and superlattice pattern stabilization in two-frequency forced Faraday waves. Physica D: Nonlinear Phenomena, 2002, 172, 1-29.	2.8	27
18	Instabilities and patterns in coupled reaction-diffusion layers. Physical Review E, 2012, 85, 026215.	2.1	26

#	Article	IF	Citations
19	A topological approach to selecting models of biological experiments. PLoS ONE, 2019, 14, e0213679.	2.5	24
20	Biological Aggregation Driven by Social and Environmental Factors: A Nonlocal Model and Its Degenerate Cahn--Hilliard Approximation. SIAM Journal on Applied Dynamical Systems, 2016, 15, 1528-1562.	1.6	19
21	Model reconstruction from temporal data for coupled oscillator networks. Chaos, 2019, 29, 103116.	2.5	19
22	Modeling the potential impact of rectal microbicides to reduce HIV transmission in bathhouses. Mathematical Biosciences and Engineering, 2006, 3, 459-466.	1.9	16
23	Forced patterns near a Turing-Hopf bifurcation. Physical Review E, 2010, 81, 026213.	2.1	14
24	Social Aggregation in Pea Aphids: Experiment and Random Walk Modeling. PLoS ONE, 2013, 8, e83343.	2.5	13
25	Spatiotemporal chaos and quasipatterns in coupled reaction–diffusion systems. Physica D: Nonlinear Phenomena, 2020, 409, 132475.	2.8	10
26	Capturing dynamics of time-varying data via topology. , 2021, .		10
27	Race- and gender-based under-representation of creative contributors: art, fashion, film, and music. Humanities and Social Sciences Communications, 2022, 9, .	2.9	9
28	Comparing demographics of signatories to public letters on diversity in the mathematical sciences. PLoS ONE, 2020, 15, e0232075.	2.5	2
29	Impacts of California Proposition 47 on crime in Santa Monica, California. PLoS ONE, 2021, 16, e0251199.	2.5	2
30	JUSTFAIR: Judicial System Transparency through Federal Archive Inferred Records. PLoS ONE, 2020, 15, e0241381.	2.5	2
31	New York City jails: COVID discharge policy, data transparency, and reform. PLoS ONE, 2022, 17, e0262255.	2.5	2
32	Connecting the Dots: Discovering the "Shape" of Data. Frontiers for Young Minds, 0, 9, .	0.8	1
33	Continuum Modeling in the Physical Sciences by VAN GROESEN, E. and MOLENAAR, J.. Biometrics, 2008, 64, 1299-1300.	1.4	0
34	Affirmative action, critical mass, and a predictive model of undergraduate student body demographics. PLoS ONE, 2021, 16, e0250266.	2.5	0