Madhav Marathe

List of Publications by Year
in descending order

54	1,565	331670	361022
papers	citations	21 h-index	35 g-index

58	58	58	1994
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling the Impact of Interventions on an Epidemic of Ebola in Sierra Leone and Liberia. PLOS Currents, 2014, 6, .	1.4	143
2	Using data-driven agent-based models for forecasting emerging infectious diseases. Epidemics, 2018, 22, 43-49.	3.0	133
3	Formal-Language-Constrained Path Problems. SIAM Journal on Computing, 2000, 30, 809-837.	1.0	131
4	Systems Modeling of Molecular Mechanisms Controlling Cytokine-driven CD4+ T Cell Differentiation and Phenotype Plasticity. PLoS Computational Biology, 2013, 9, e1003027.	3.2	111
5	Computational epidemiology. Communications of the ACM, 2013, 56, 88-96.	4.5	93
6	Mathematical models: A key tool for outbreak response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18095-18096.	7.1	78
7	Modeling of Wildlife-Associated Zoonoses: Applications and Caveats. Vector-Borne and Zoonotic Diseases, 2012, 12, 1005-1018.	1.5	73
8	Predictive Computational Modeling of the Mucosal Immune Responses during Helicobacter pylori Infection. PLoS ONE, 2013, 8, e73365.	2.5	53
9	Economic and social impact of influenza mitigation strategies by demographic class. Epidemics, 2011, 3, 19-31.	3.0	46
10	Modeling the Impact of Interventions on an Epidemic of Ebola in Sierra Leone and Liberia. PLOS Currents, 2014, 6, .	1.4	45
11	Optimizing spatial allocation of seasonal influenza vaccine under temporal constraints. PLoS Computational Biology, 2019, 15, e1007111.	3.2	44
12	A framework for evaluating epidemic forecasts. BMC Infectious Diseases, 2017, 17, 345.	2.9	42
13	Combining Participatory Influenza Surveillance with Modeling and Forecasting: Three Alternative Approaches. JMIR Public Health and Surveillance, 2017, 3, e83.	2.6	42
14	DEFSI: Deep Learning Based Epidemic Forecasting with Synthetic Information. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 9607-9612.	4.9	41
15	Disparities in spread and control of influenza in slums of Delhi: findings from an agent-based modelling study. BMJ Open, 2018, 8, e017353.	1.9	36
16	ENteric Immunity SImulator: A Tool for In Silico Study of Gastroenteric Infections. IEEE Transactions on Nanobioscience, 2012, 11, 273-288.	3.3	34
17	Recent Advances in Computational Epidemiology. IEEE Intelligent Systems, 2013, 28, 96-101.	4.0	34
18	Detail in network models of epidemiology: are we there yet?. Journal of Biological Dynamics, 2010, 4, 446-455.	1.7	30

#	Article	IF	Citations
19	Sensitivity Analysis of an ENteric Immunity SImulator (ENISI)-Based Model of Immune Responses to Helicobacter pylori Infection. PLoS ONE, 2015, 10, e0136139.	2.5	24
20	Calibrating a Stochastic, Agent-Based Model Using Quantile-Based Emulation. SIAM-ASA Journal on Uncertainty Quantification, 2018, 6, 1685-1706.	2.0	24
21	Comparing Effectiveness of Top-Down and Bottom-Up Strategies in Containing Influenza. PLoS ONE, 2011, 6, e25149.	2.5	24
22	Parametric Probabilistic Routing in Sensor Networks. Mobile Networks and Applications, 2005, 10, 529-544.	3.3	23
23	Modeling interaction between individuals, social networks and public policy to support public health epidemiology. , 2009, , .		21
24	Forecasting dengue and influenza incidences using a sparse representation of Google trends, electronic health records, and time series data. PLoS Computational Biology, 2019, 15, e1007518.	3.2	20
25	TDEFSI. ACM Transactions on Spatial Algorithms and Systems, 2020, 6, 1-39.	1.4	18
26	Assessing the multi-pathway threat from an invasive agricultural pest: Tuta absoluta in Asia. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191159.	2.6	17
27	ENteric Immunity SImulator: A Tool for in silico Study of Gut Immunopathologies. , 2011, , .		14
28	ENISI Visual, an agent-based simulator for modeling gut immunity. , 2012, , .		14
29	A fast parallel algorithm for counting triangles in graphs using dynamic load balancing. , 2015, , .		14
30	Individual and Collective Behavior in Public Health Epidemiology. Handbook of Statistics, 2017, 36, 329-365.	0.6	13
31	Integrated Multi-Network Modeling Environment for Spectrum Management. IEEE Journal on Selected Areas in Communications, 2013, 31, 1158-1168.	14.0	11
32	What to know before forecasting the flu. PLoS Computational Biology, 2018, 14, e1005964.	3.2	11
33	An Efficient and Scalable Algorithmic Method for Generating Large-Scale Random Graphs. , 2016, , .		10
34	All Models Are Useful: Bayesian Ensembling for Robust High Resolution COVID-19 Forecasting. , 2021, , .		9
35	Fundamental limitations on efficiently forecasting certain epidemic measures in network models. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
36	Summarizing Simulation Results Using Causally-Relevant States. Lecture Notes in Computer Science, 2016, 10003, 88-103.	1.3	8

#	Article	IF	Citations
37	The effect of demographic and spatial variability on epidemics: A comparison between Beijing, Delhi, and Los Angeles. , 2010, , .		7
38	EpiCaster. , 2015, 2015, 156-165.		7
39	Parallel algorithms for switching edges in heterogeneous graphs. Journal of Parallel and Distributed Computing, 2017, 104, 19-35.	4.1	6
40	Spatio-Temporal Optimization of Seasonal Vaccination Using a Metapopulation Model of Influenza. , 2017, , .		6
41	Feedback Between Behavioral Adaptations and Disease Dynamics. Scientific Reports, 2018, 8, 12452.	3.3	6
42	Flu Caster: A Pervasive Web Application for High Resolution Situation Assessment and Forecasting of Flu Outbreaks. , 2015, , .		5
43	A parallel algorithm for generating a random graph with a prescribed degree sequence. , 2017, , .		5
44	Efficient implementation of complex interventions in large scale epidemic simulations. , 2011, , .		4
45	Computational challenges in modeling & simulation of complex systems. , 2017, , .		4
46	Statistical Analysis of Algorithms: A Case Study of Market-Clearing Mechanisms in the Power Industry. Journal of Graph Algorithms and Applications, 2003, 7, 3-31.	0.4	4
47	Evaluating Strategies for Pandemic Response in Delhi Using Realistic Social Networks. , 2013, , .		3
48	SubGraph2Vec: Highly-Vectorized Tree-like Subgraph Counting. , 2019, , .		3
49	Finding and Counting Tree-Like Subgraphs Using MapReduce. IEEE Transactions on Multi-Scale Computing Systems, 2018, 4, 217-230.	2.4	2
50	Poster: Parallel Algorithms for Counting Triangles and Computing Clustering Coefficients. , 2012, , .		1
51	Resilient Cities and Urban Analytics. , 2015, , .		1
52	Bounds and Complexity Results for Learning Coalition-Based Interaction Functions in Networked Social Systems. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 3138-3145.	4.9	0
53	An Automated Approach for Finding Spatio-Temporal Patterns of Seasonal Influenza in the United States: Algorithm Validation Study. JMIR Public Health and Surveillance, 2020, 6, e12842.	2.6	0
54	Computational Modeling of Immune System Interactions during Cytokine Release Syndrome (CRS) and Immune Effector Cell Associated Neurotoxicity Syndrome (ICANS) after Chimeric Antigen Receptor (CAR) T-Cell Therapy. Transplantation and Cellular Therapy, 2022, 28, S145-S146.	1.2	0