Madhav Marathe

List of Publications by Citations

52 papers	1,107 citations	19 h-index	32 g-index
58 ext. papers	1,385 ext. citations	4.3 avg, IF	4.4 L-index

#	Paper	IF	Citations
52	Modeling the impact of interventions on an epidemic of ebola in sierra leone and liberia. *PLOS Currents*, **2014**, 6,		104
51	Formal-Language-Constrained Path Problems. *SIAM Journal on Computing*, **2000**, 30, 809-837	1.1	103
50	Systems modeling of molecular mechanisms controlling cytokine-driven CD4+ T cell differentiation and phenotype plasticity. *PLoS Computational Biology*, **2013**, 9, e1003027	5	84
49	Using data-driven agent-based models for forecasting emerging infectious diseases. *Epidemics*, **2018**, 22, 43-49	5.1	83
48	Computational epidemiology. *Communications of the ACM*, **2013**, 56, 88-96	2.5	63
47	Opinion: Mathematical models: a key tool for outbreak response. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 18095-6	11.5	56
46	Modeling of wildlife-associated zoonoses: applications and caveats. *Vector-Borne and Zoonotic Diseases*, **2012**, 12, 1005-18	2.4	56
45	Predictive computational modeling of the mucosal immune responses during Helicobacter pylori infection. *PLoS ONE*, **2013**, 8, e73365	3.7	45
44	Economic and social impact of influenza mitigation strategies by demographic class. *Epidemics*, **2011**, 3, 19-31	5.1	39
43	Modeling the impact of interventions on an epidemic of ebola in sierra leone and liberia. *PLOS Currents*, **2014**, 6,		37
42	ENteric Immunity SImulator: a tool for in silico study of gastroenteric infections. *IEEE Transactions on Nanobioscience*, **2012**, 11, 273-88	3.4	32
41	Combining Participatory Influenza Surveillance with Modeling and Forecasting: Three Alternative Approaches. *JMIR Public Health and Surveillance*, **2017**, 3, e83	11.4	29
40	A framework for evaluating epidemic forecasts. *BMC Infectious Diseases*, **2017**, 17, 345	4	28
39	Optimizing spatial allocation of seasonal influenza vaccine under temporal constraints. *PLoS Computational Biology*, **2019**, 15, e1007111	5	23
38	DEFSI: Deep Learning Based Epidemic Forecasting with Synthetic Information. *Proceedings of the AAAI Conference on Artificial Intelligence*, **2019**, 33, 9607-9612	5	23
37	Disparities in spread and control of influenza in slums of Delhi: findings from an agent-based modelling study. *BMJ Open*, **2018**, 8, e017353	3	22
36	Detail in network models of epidemiology: are we there yet?. *Journal of Biological Dynamics*, **2010**, 4, 446-55	2.4	22

35	Recent Advances in Computational Epidemiology. *IEEE Intelligent Systems*, **2013**, 28, 96-101	4.2	19
34	Comparing effectiveness of top-down and bottom-up strategies in containing influenza. *PLoS ONE*, **2011**, 6, e25149	3.7	19
33	Modeling interaction between individuals, social networks and public policy to support public health epidemiology **2009**,		17
32	Sensitivity Analysis of an ENteric Immunity SImulator (ENISI)-Based Model of Immune Responses to Helicobacter pylori Infection. *PLoS ONE*, **2015**, 10, e0136139	3.7	14
31	Parametric Probabilistic Routing in Sensor Networks. *Mobile Networks and Applications*, **2005**, 10, 529-544	2.9	14
30	Calibrating a Stochastic, Agent-Based Model Using Quantile-Based Emulation. *SIAM-ASA Journal on Uncertainty Quantification*, **2018**, 6, 1685-1706	1.8	14
29	ENISI Visual, an agent-based simulator for modeling gut immunity **2012**,		13
28	ENteric Immunity SImulator: A Tool for in silico Study of Gut Immunopathologies **2011**,		12
27	A fast parallel algorithm for counting triangles in graphs using dynamic load balancing **2015**,		11
26	TDEFSI. *ACM Transactions on Spatial Algorithms and Systems*, **2020**, 6, 1-39	1.8	11
25	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	5	11
24	Assessing the multi-pathway threat from an invasive agricultural pest: in Asia. *Proceedings of the Royal Society B: Biological Sciences*, **2019**, 286, 20191159	4.4	10
23	Individual and Collective Behavior in Public Health Epidemiology. *Handbook of Statistics*, **2017**, 36, 329-365	0.6	10
22	Integrated Multi-Network Modeling Environment for Spectrum Management. *IEEE Journal on Selected Areas in Communications*, **2013**, 31, 1158-1168	14.2	9
21	An Efficient and Scalable Algorithmic Method for Generating Large-Scale Random Graphs **2016**,		9
20	What to know before forecasting the flu. *PLoS Computational Biology*, **2018**, 14, e1005964	5	7
19	Summarizing Simulation Results using Causally-relevant States. *Lecture Notes in Computer Science*, **2016**, 10003, 88-103	0.9	6
18	Spatio-Temporal Optimization of Seasonal Vaccination Using a Metapopulation Model of Influenza **2017**,		5

17	EpiCaster: An Integrated Web Application For Situation Assessment and Forecasting of Global Epidemics **2015**, 2015, 156-165		5
16	Parallel Algorithms for Switching Edges in Heterogeneous Graphs. *Journal of Parallel and Distributed Computing*, **2017**, 104, 19-35	4.4	4
15	A parallel algorithm for generating a random graph with a prescribed degree sequence **2017**,		4
14	Flu Caster: A Pervasive Web Application for High Resolution Situation Assessment and Forecasting of Flu Outbreaks **2015**,		4
13	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	1.5	4
12	Feedback Between Behavioral Adaptations and Disease Dynamics. *Scientific Reports*, **2018**, 8, 12452	4.9	4
11	The effect of demographic and spatial variability on epidemics: A comparison between Beijing, Delhi, and Los Angeles **2010**,		3
10	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,	11.5	3
9	Computational challenges in modeling & simulation of complex systems **2017**,		2
8	Evaluating Strategies for Pandemic Response in Delhi Using Realistic Social Networks **2013**,		2
7	Efficient implementation of complex interventions in large scale epidemic simulations **2011**,		2
6	**2019**,		2
5	Resilient Cities and Urban Analytics **2015**,		1
4	Finding and Counting Tree-Like Subgraphs Using MapReduce. *IEEE Transactions on Multi-Scale Computing Systems*, **2018**, 4, 217-230		1
3	Realistic Commodity Flow Networks to Assess Vulnerability of Food Systems. *Studies in Computational Intelligence*, **2022**, 168-179	0.8	1
2	Impact of SARS-CoV-2 vaccination of children ages 5-11 years on COVID-19 disease burden and resilience to new variants in the United States, November 2021-March 2022: a multi-model study. **2022**,		1
1	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	11.4	