

Lauren Ancel Meyers

List of Publications by Year in descending order

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Version: 2024-02-01

131
papers

11,171
citations

41258

49
h-index

37111

96
g-index

165
all docs

165
docs citations

165
times ranked

13199
citing authors

#	ARTICLE	IF	CITATIONS
1	Network theory and SARS: predicting outbreak diversity. <i>Journal of Theoretical Biology</i> , 2005, 232, 71-81.	0.8	592
2	When individual behaviour matters: homogeneous and network models in epidemiology. <i>Journal of the Royal Society Interface</i> , 2007, 4, 879-891.	1.5	557
3	Serial Interval of COVID-19 among Publicly Reported Confirmed Cases. <i>Emerging Infectious Diseases</i> , 2020, 26, 1341-1343.	2.0	546
4	PERSPECTIVE: EVOLUTION AND DETECTION OF GENETIC ROBUSTNESS. <i>Evolution; International Journal of Organic Evolution</i> , 2003, 57, 1959-1972.	1.1	504
5	PERSPECTIVE:EVOLUTION AND DETECTION OF GENETIC ROBUSTNESS. <i>Evolution; International Journal of Organic Evolution</i> , 2003, 57, 1959.	1.1	467
6	Projecting hospital utilization during the COVID-19 outbreaks in the United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 9122-9126.	3.3	441
7	Impact of international travel and border control measures on the global spread of the novel 2019 coronavirus outbreak. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7504-7509.	3.3	429
8	The Impact of Vaccination on Coronavirus Disease 2019 (COVID-19) Outbreaks in the United States. <i>Clinical Infectious Diseases</i> , 2021, 73, 2257-2264.	2.9	376
9	Risk for Transportation of Coronavirus Disease from Wuhan to Other Cities in China. <i>Emerging Infectious Diseases</i> , 2020, 26, 1049-1052.	2.0	323
10	Fighting change with change: adaptive variation in an uncertain world. <i>Trends in Ecology and Evolution</i> , 2002, 17, 551-557.	4.2	311
11	Contact network epidemiology: Bond percolation applied to infectious disease prediction and control. <i>Bulletin of the American Mathematical Society</i> , 2006, 44, 63-87.	0.8	259
12	Predicting epidemics on directed contact networks. <i>Journal of Theoretical Biology</i> , 2006, 240, 400-418.	0.8	242
13	Susceptible–infected–recovered epidemics in dynamic contact networks. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2007, 274, 2925-2934.	1.2	220
14	The dynamics of risk perceptions and precautionary behavior in response to 2009 (H1N1) pandemic influenza. <i>BMC Infectious Diseases</i> , 2010, 10, 296.	1.3	219
15	Applying Network Theory to Epidemics: Control Measures for <i>Mycoplasma pneumoniae</i> Outbreaks. <i>Emerging Infectious Diseases</i> , 2003, 9, 204-210.	2.0	177
16	The dynamic nature of contact networks in infectious disease epidemiology. <i>Journal of Biological Dynamics</i> , 2010, 4, 478-489.	0.8	170
17	Epidemic thresholds in dynamic contact networks. <i>Journal of the Royal Society Interface</i> , 2009, 6, 233-241.	1.5	168
18	ON THE ABUNDANCE OF POLYPLOIDS IN FLOWERING PLANTS. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 1198-1206.	1.1	153

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19	Quasispecies Made Simple. <i>PLoS Computational Biology</i> , 2005, 1, e61.	1.5	143
20	Effects of Heterogeneous and Clustered Contact Patterns on Infectious Disease Dynamics. <i>PLoS Computational Biology</i> , 2011, 7, e1002042.	1.5	139
21	Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2113561119.	3.3	136
22	Initial human transmission dynamics of the pandemic (H1N1) 2009 virus in North America. <i>Influenza and Other Respiratory Viruses</i> , 2009, 3, 215-222.	1.5	123
23	A Comparative Analysis of Influenza Vaccination Programs. <i>PLoS Medicine</i> , 2006, 3, e387.	3.9	122
24	Disease transmission in territorial populations: the small-world network of Serengeti lions. <i>Journal of the Royal Society Interface</i> , 2011, 8, 776-786.	1.5	121
25	Enhancing disease surveillance with novel data streams: challenges and opportunities. <i>EPJ Data Science</i> , 2015, 4, .	1.5	119
26	Infectious diseases and social distancing in nature. <i>Science</i> , 2021, 371, .	6.0	108
27	Comparative cost-effectiveness of SARS-CoV-2 testing strategies in the USA: a modelling study. <i>Lancet Public Health</i> , The, 2021, 6, e184-e191.	4.7	106
28	Network frailty and the geometry of herd immunity. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 2743-2748.	1.2	105
29	The Impact of Imitation on Vaccination Behavior in Social Contact Networks. <i>PLoS Computational Biology</i> , 2012, 8, e1002469.	1.5	102
30	Impact of Social Distancing Measures on Coronavirus Disease Healthcare Demand, Central Texas, USA. <i>Emerging Infectious Diseases</i> , 2020, 26, 2361-2369.	2.0	93
31	The Ascent of the Abundant: How Mutational Networks Constrain Evolution. <i>PLoS Computational Biology</i> , 2008, 4, e1000110.	1.5	91
32	Hierarchical social networks shape gut microbial composition in wild Verreaux's sifaka. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20172274.	1.2	82
33	Modeling Control Strategies of Respiratory Pathogens. <i>Emerging Infectious Diseases</i> , 2005, 11, 1249-1256.	2.0	81
34	Distinguishing epidemic waves from disease spillover in a wildlife population. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2009, 276, 1777-1785.	1.2	80
35	Mathematical models: A key tool for outbreak response. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 18095-18096.	3.3	78
36	Exploring biological network structure with clustered random networks. <i>BMC Bioinformatics</i> , 2009, 10, 405.	1.2	77

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37	Ebola control: effect of asymptomatic infection and acquired immunity. <i>Lancet</i> , The, 2014, 384, 1499-1500.	6.3	77
38	The Shifting Demographic Landscape of Pandemic Influenza. <i>PLoS ONE</i> , 2010, 5, e9360.	1.1	76
39	Reassessment of HIV-1 Acute Phase Infectivity: Accounting for Heterogeneity and Study Design with Simulated Cohorts. <i>PLoS Medicine</i> , 2015, 12, e1001801.	3.9	75
40	Cost-Effectiveness of Canine Vaccination to Prevent Human Rabies in Rural Tanzania. <i>Annals of Internal Medicine</i> , 2014, 160, 91-100.	2.0	71
41	Network-based vaccination improves prospects for disease control in wild chimpanzees. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140349.	1.5	65
42	Evolution of Genetic Potential. <i>PLoS Computational Biology</i> , 2005, 1, e32.	1.5	64
43	Statistical power and validity of Ebola vaccine trials in Sierra Leone: a simulation study of trial design and analysis. <i>Lancet Infectious Diseases</i> , The, 2015, 15, 703-710.	4.6	64
44	How Mutational Networks Shape Evolution: Lessons from RNA Models. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2007, 38, 203-230.	3.8	62
45	Erratic Flu Vaccination Emerges from Short-Sighted Behavior in Contact Networks. <i>PLoS Computational Biology</i> , 2011, 7, e1001062.	1.5	62
46	Epidemiological and Viral Genomic Sequence Analysis of the 2014 Ebola Outbreak Reveals Clustered Transmission. <i>Clinical Infectious Diseases</i> , 2015, 60, 1079-1082.	2.9	59
47	Terrestriality and bacterial transfer: a comparative study of gut microbiomes in sympatric Malagasy mammals. <i>ISME Journal</i> , 2019, 13, 50-63.	4.4	59
48	Epidemiology, hypermutation, within-host evolution and the virulence of <i>Neisseria meningitidis</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2003, 270, 1667-1677.	1.2	57
49	Timing social distancing to avert unmanageable COVID-19 hospital surges. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19873-19878.	3.3	56
50	Effects of Proactive Social Distancing on COVID-19 Outbreaks in 58 Cities, China. <i>Emerging Infectious Diseases</i> , 2020, 26, 2267-2269.	2.0	55
51	The Robustness of Naturally and Artificially Selected Nucleic Acid Secondary Structures. <i>Journal of Molecular Evolution</i> , 2004, 58, 681-691.	0.8	53
52	Stockpiling Ventilators for Influenza Pandemics. <i>Emerging Infectious Diseases</i> , 2017, 23, 914-921.	2.0	53
53	On the abundance of polyploids in flowering plants. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 1198-206.	1.1	50
54	Polyloid Formation Shapes Flowering Plant Diversity. <i>American Naturalist</i> , 2014, 184, 456-465.	1.0	49

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55	Estimated Association of Construction Work With Risks of COVID-19 Infection and Hospitalization in Texas. JAMA Network Open, 2020, 3, e2026373.	2.8	48
56	Distributions of Beneficial Fitness Effects in RNA. Genetics, 2005, 170, 1449-1457.	1.2	47
57	Potential for Rabies Control through Dog Vaccination in Wildlife-Abundant Communities of Tanzania. PLoS Neglected Tropical Diseases, 2012, 6, e1796.	1.3	46
58	Respiratory virus transmission dynamics determine timing of asthma exacerbation peaks: Evidence from a population-level model. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2194-2199.	3.3	46
59	Disease Surveillance on Complex Social Networks. PLoS Computational Biology, 2016, 12, e1004928.	1.5	46
60	Optimizing Provider Recruitment for Influenza Surveillance Networks. PLoS Computational Biology, 2012, 8, e1002472.	1.5	43
61	Geographic prioritization of distributing pandemic influenza vaccines. Health Care Management Science, 2012, 15, 175-187.	1.5	42
62	Assessing real-time Zika risk in the United States. BMC Infectious Diseases, 2017, 17, 284.	1.3	41
63	Dengue dynamics and vaccine cost-effectiveness in Brazil. Vaccine, 2013, 31, 3957-3961.	1.7	40
64	Efficacy and Optimization of Palivizumab Injection Regimens Against Respiratory Syncytial Virus Infection. JAMA Pediatrics, 2015, 169, 341.	3.3	39
65	Optimizing Tactics for Use of the U.S. Antiviral Strategic National Stockpile for Pandemic Influenza. PLoS ONE, 2011, 6, e16094.	1.1	38
66	Simulating school closure policies for cost effective pandemic decision making. BMC Public Health, 2012, 12, 449.	1.2	38
67	Ebola vaccination in the Democratic Republic of the Congo. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10178-10183.	3.3	38
68	Optimizing allocation for a delayed influenza vaccination campaign. PLOS Currents, 2009, 1, RRN1134.	1.4	38
69	Optimal H1N1 vaccination strategies based on self-interest versus group interest. BMC Public Health, 2011, 11, S4.	1.2	37
70	Seasonality in risk of pandemic influenza emergence. PLoS Computational Biology, 2017, 13, e1005749.	1.5	37
71	Vaccination against 2009 pandemic H1N1 in a population dynamical model of Vancouver, Canada: timing is everything. BMC Public Health, 2011, 11, 932.	1.2	36
72	Modeling mitigation of influenza epidemics by baloxavir. Nature Communications, 2020, 11, 2750.	5.8	36

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73	Cost-effectiveness of a community-based intervention for reducing the transmission of <i>Schistosoma haematobium</i> and HIV in Africa. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7952-7957.	3.3	35
74	The impact of past epidemics on future disease dynamics. Journal of Theoretical Biology, 2012, 309, 176-184.	0.8	33
75	Potential Cost-Effectiveness of Schistosomiasis Treatment for Reducing HIV Transmission in Africa – The Case of Zimbabwean Women. PLoS Neglected Tropical Diseases, 2013, 7, e2346.	1.3	33
76	From Bad to Good: Fitness Reversals and the Ascent of Deleterious Mutations. PLoS Computational Biology, 2006, 2, e141.	1.5	31
77	EpiFire: An open source C++ library and application for contact network epidemiology. BMC Bioinformatics, 2012, 13, 76.	1.2	31
78	Harnessing Case Isolation and Ring Vaccination to Control Ebola. PLoS Neglected Tropical Diseases, 2015, 9, e0003794.	1.3	31
79	Real-time pandemic surveillance using hospital admissions and mobility data. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	31
80	Probabilistic uncertainty analysis of epidemiological modeling to guide public health intervention policy. Epidemics, 2014, 6, 37-45.	1.5	29
81	Local risk perception enhances epidemic control. PLoS ONE, 2019, 14, e0225576.	1.1	28
82	The Experience of 2 Independent Schools With Person Learning During the COVID-19 Pandemic. Journal of School Health, 2021, 91, 347-355.	0.8	28
83	Mathematical Approaches to Infectious Disease Prediction and Control. , 2010, , 1-25.		27
84	Design of COVID-19 staged alert systems to ensure healthcare capacity with minimal closures. Nature Communications, 2021, 12, 3767.	5.8	27
85	Epidemiological bridging by injection drug use drives an early HIV epidemic. Epidemics, 2010, 2, 155-164.	1.5	26
86	Future epidemiological and economic impacts of universal influenza vaccines. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20786-20792.	3.3	26
87	Selecting pharmacies for COVID-19 testing to ensure access. Health Care Management Science, 2021, 24, 330-338.	1.5	26
88	The cost-effectiveness of oral HIV pre-exposure prophylaxis and early antiretroviral therapy in the presence of drug resistance among men who have sex with men in San Francisco. BMC Medicine, 2018, 16, 58.	2.3	25
89	Reducing Influenza Virus Transmission: The Potential Value of Antiviral Treatment. Clinical Infectious Diseases, 2022, 74, 532-540.	2.9	25
90	Epidemiological effects of group size variation in social species. Journal of the Royal Society Interface, 2013, 10, 20130206.	1.5	22

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91	Epidemic Wave Dynamics Attributable to Urban Community Structure: A Theoretical Characterization of Disease Transmission in a Large Network. <i>Journal of Medical Internet Research</i> , 2015, 17, e169.	2.1	22
92	Equalizing access to pandemic influenza vaccines through optimal allocation to public health distribution points. <i>PLoS ONE</i> , 2017, 12, e0182720.	1.1	21
93	Controlling Antimicrobial Resistance through Targeted, Vaccine-Induced Replacement of Strains. <i>PLoS ONE</i> , 2012, 7, e50688.	1.1	20
94	Evaluating Large-scale Blood Transfusion Therapy for the Current Ebola Epidemic in Liberia. <i>Journal of Infectious Diseases</i> , 2015, 211, 1262-1267.	1.9	19
95	Using the COVID-19 to influenza ratio to estimate early pandemic spread in Wuhan, China and Seattle, US. <i>EClinicalMedicine</i> , 2020, 26, 100479.	3.2	19
96	Socioeconomic bias in influenza surveillance. <i>PLoS Computational Biology</i> , 2020, 16, e1007941.	1.5	18
97	Optimal multi-source forecasting of seasonal influenza. <i>PLoS Computational Biology</i> , 2018, 14, e1006236.	1.5	17
98	Conflict and accord of optimal treatment strategies for HIV infection within and between hosts. <i>Mathematical Biosciences</i> , 2019, 309, 107-117.	0.9	17
99	CDC Grand Rounds: Modeling and Public Health Decision-Making. <i>Morbidity and Mortality Weekly Report</i> , 2016, 65, 1374-1377.	9.0	17
100	Who got vaccinated against H1N1 pandemic influenza? â€œ A longitudinal study in four US cities. <i>Psychology and Health</i> , 2012, 27, 101-115.	1.2	16
101	Early prediction of antigenic transitions for influenza A/H3N2. <i>PLoS Computational Biology</i> , 2020, 16, e1007683.	1.5	16
102	Social groups constrain the spatiotemporal dynamics of wild sifaka gut microbiomes. <i>Molecular Ecology</i> , 2021, 30, 6759-6775.	2.0	16
103	Transmission of Infectious Diseases En Route to Habitat Hotspots. <i>PLoS ONE</i> , 2012, 7, e31290.	1.1	15
104	Effects of COVID-19 Vaccination Timing and Risk Prioritization on Mortality Rates, United States. <i>Emerging Infectious Diseases</i> , 2021, 27, 1976-1979.	2.0	15
105	Optimizing Distribution of Pandemic Influenza Antiviral Drugs. <i>Emerging Infectious Diseases</i> , 2015, 21, 251-258.	2.0	14
106	Design Strategies for Efficient Arbovirus Surveillance. <i>Emerging Infectious Diseases</i> , 2017, 23, 642-644.	2.0	14
107	Optimal targeting of seasonal influenza vaccination toward younger ages is robust to parameter uncertainty. <i>Vaccine</i> , 2013, 31, 3079-3089.	1.7	13
108	Conscientious vaccination exemptions in kindergarten to eighth-grade children across Texas schools from 2012 to 2018: A regression analysis. <i>PLoS Medicine</i> , 2020, 17, e1003049.	3.9	13

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109	Optimizing Tactics for use of the U.S. Antiviral Strategic National Stockpile for Pandemic (H1N1) Influenza, 2009. PLOS Currents, 2009, 1, RRN1127.	1.4	12
110	Ebola virus vaccine trials: the ethical mandate for a therapeutic safety net. BMJ, The, 2014, 349, g7518-g7518.	3.0	11
111	Uncertainty analysis of species distribution models. PLoS ONE, 2019, 14, e0214190.	1.1	11
112	Early antiretroviral therapy and potent second-line drugs could decrease HIV incidence of drug resistance. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170525.	1.2	10
113	Cost-effective proactive testing strategies during COVID-19 mass vaccination: A modelling study. The Lancet Regional Health Americas, 2022, 8, 100182.	1.5	10
114	Impact of Imitation Processes on the Effectiveness of Ring Vaccination. Bulletin of Mathematical Biology, 2011, 73, 2748-2772.	0.9	9
115	Early Real-Time Estimation of the Basic Reproduction Number of Emerging Infectious Diseases. Physical Review X, 2012, 2, .	2.8	9
116	Constraints on Variation from Genotype through Phenotype to Fitness. , 2005, , 87-111.		6
117	Downgrading disease transmission risk estimates using terminal importations. PLoS Neglected Tropical Diseases, 2019, 13, e0007395.	1.3	6
118	The Shifting Demographic Landscape of Influenza. PLOS Currents, 2009, 1, RRN1047.	1.4	6
119	Evaluating Ebola vaccine trials: insights from simulation. Lancet Infectious Diseases, The, 2015, 15, 1134.	4.6	5
120	Projecting COVID-19 isolation bed requirements for people experiencing homelessness. PLoS ONE, 2021, 16, e0251153.	1.1	5
121	Data Blindspots: High-Tech Disease Surveillance Misses the Poor. Online Journal of Public Health Informatics, 2016, 8, .	0.4	5
122	Impact of the Timing of Stay-at-Home Orders and Mobility Reductions on First-Wave COVID-19 Deaths in US Counties. American Journal of Epidemiology, 2022, 191, 900-907.	1.6	5
123	ON THE ABUNDANCE OF POLYPLOIDS IN FLOWERING PLANTS. Evolution; International Journal of Organic Evolution, 2006, 60, 1198.	1.1	4
124	Network Perspectives on Infectious Disease Dynamics. Interdisciplinary Perspectives on Infectious Diseases, 2011, 2011, 1-2.	0.6	4
125	Projecting the Combined Health Care Burden of Seasonal Influenza and COVID-19 in the 2020-2021 Season. MDM Policy and Practice, 2022, 7, 238146832210846.	0.5	4
126	Estimation of single-year-of-age counts of live births, fetal losses, abortions, and pregnant women for counties of Texas. BMC Research Notes, 2017, 10, 178.	0.6	3

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127	Location based surveillance for early detection of contagious outbreaks. , 2015, , .		2
128	Optimizing COVID-19 surveillance using historical electronic health records of influenza infections. , 0, , .		2
129	Expanding Access to COVID-19 Tests through US Postal Service Facilities. Medical Decision Making, 2021, 41, 3-8.	1.2	1
130	Couple serostatus patterns in sub-Saharan Africa illuminate the relative roles of transmission rates and sexual network characteristics in HIV epidemiology. Scientific Reports, 2018, 8, 6675.	1.6	0
131	Early COVID-19 Pandemic Modeling: Three Compartmental Model Case Studies From Texas, USA. Computing in Science and Engineering, 2021, 23, 25-34.	1.2	0