Andreas Handel

List of Publications by Year
in descending order

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73 papers	3,352 citations	172207 29 h-index	161609 54 g-index
84 all docs	84 docs citations	84 times ranked	5302 citing authors

#	Article	IF	Citations
1	Community Outbreak Investigation of SARS-CoV-2 Transmission Among Bus Riders in Eastern China. JAMA Internal Medicine, 2020, 180, 1665.	2.6	299
2	A review of mathematical models of influenza A infections within a host or cell culture: lessons learned and challenges ahead. BMC Public Health, 2011, 11, S7.	1.2	191
3	Dominant protection from HLA-linked autoimmunity by antigen-specific regulatory T cells. Nature, 2017, 545, 243-247.	13.7	181
4	Severe Outcomes Are Associated With Genogroup 2 Genotype 4 Norovirus Outbreaks: A Systematic Literature Review. Clinical Infectious Diseases, 2012, 55, 189-193.	2.9	147
5	Molecular evolution and emergence of avian gammacoronaviruses. Infection, Genetics and Evolution, 2012, 12, 1305-1311.	1.0	140
6	Feasibility of achieving the 2025 WHO global tuberculosis targets in South Africa, China, and India: a combined analysis of 11 mathematical models. The Lancet Global Health, 2016, 4, e806-e815.	2.9	138
7	Towards a quantitative understanding of the within-host dynamics of influenza A infections. Journal of the Royal Society Interface, 2010, 7, 35-47.	1.5	126
8	Neuraminidase Inhibitor Resistance in Influenza: Assessing the Danger of Its Generation and Spread. PLoS Computational Biology, 2007, 3, e240.	1.5	121
9	Heterogeneity and longevity of antibody memory to viruses and vaccines. PLoS Biology, 2018, 16, e2006601.	2.6	118
10	The Role of Compensatory Mutations in the Emergence of Drug Resistance. PLoS Computational Biology, 2006, 2, e137.	1.5	110
11	Transmissibility and mortality impact of epidemic and pandemic influenza, with emphasis on the unusually deadly 1951 epidemic. Vaccine, 2006, 24, 6701-6707.	1.7	102
12	Crossing the scale from within-host infection dynamics to between-host transmission fitness: a discussion of current assumptions and knowledge. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140302.	1.8	95
13	What is the best control strategy for multiple infectious disease outbreaks?. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 833-837.	1.2	86
14	Viral factors in influenza pandemic risk assessment. ELife, 2016, 5, .	2.8	82
15	Heterogeneous Adaptive Trajectories of Small Populations on Complex Fitness Landscapes. PLoS ONE, 2008, 3, e1715.	1.1	80
16	Exploring the role of the immune response in preventing antibiotic resistance. Journal of Theoretical Biology, 2009, 256, 655-662.	0.8	75
17	Quantification of epitope abundance reveals the effect of direct and cross-presentation on influenza CTL responses. Nature Communications, 2019, 10, 2846.	5.8	70
18	Cost-effectiveness and resource implications of aggressive action on tuberculosis in China, India, and South Africa: a combined analysis of nine models. The Lancet Global Health, 2016, 4, e816-e826.	2.9	69

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19	COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19. JAMA Internal Medicine, 2021, 181, 1343.	2.6	68
20	Recognition of Distinct Cross-Reactive Virus-Specific CD8+ T Cells Reveals a Unique TCR Signature in a Clinical Setting. Journal of Immunology, 2014, 192, 5039-5049.	0.4	59
21	Modeling inoculum dose dependent patterns of acute virus infections. Journal of Theoretical Biology, 2014, 347, 63-73.	0.8	52
22	A Multi-scale Analysis of Influenza A Virus Fitness Trade-offs due to Temperature-dependent Virus Persistence. PLoS Computational Biology, 2013, 9, e1002989.	1.5	48
23	Heightened self-reactivity associated with selective survival, but not expansion, of naÃ¯ve virus-specific CD8 ⁺ T cells in aged mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1333-1338.	3.3	45
24	Antiviral resistance and the control of pandemic influenza: The roles of stochasticity, evolution and model details. Journal of Theoretical Biology, 2009, 256, 117-125.	0.8	41
25	Progress and trends in mathematical modelling of influenza A virus infections. Current Opinion in Systems Biology, 2018, 12, 30-36.	1.3	37
26	The impact of population size on the evolution of asexual microbes on smooth versus rugged fitness landscapes. BMC Evolutionary Biology, 2009, 9, 236.	3.2	36
27	Simulation modelling for immunologists. Nature Reviews Immunology, 2020, 20, 186-195.	10.6	34
28	Indirect benefits are a crucial consideration when evaluating SARS-CoV-2 vaccine candidates. Nature Medicine, 2021, 27, 4-5.	15.2	34
29	Mathematical Model Reveals the Role of Memory CD8 T Cell Populations in Recall Responses to Influenza. Frontiers in Immunology, 2016, 7, 165.	2.2	33
30	Within-Host Models of High and Low Pathogenic Influenza Virus Infections: The Role of Macrophages. PLoS ONE, 2016, 11, e0150568.	1.1	32
31	Surviving the Bottleneck: Transmission Mutants and the Evolution of Microbial Populations. Genetics, 2008, 180, 2193-2200.	1.2	31
32	Intervention strategies for an influenza pandemic taking into account secondary bacterial infections. Epidemics, 2009, 1, 185-195.	1.5	31
33	Trade-offs between and within scales: environmental persistence and within-host fitness of avian influenza viruses. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20133051.	1.2	30
34	Exploring the impact of inoculum dose on host immunity and morbidity to inform model-based vaccine design. PLoS Computational Biology, 2018, 14, e1006505.	1.5	28
35	A modeling study to inform screening and testing interventions for the control of SARS-CoV-2 on university campuses. Scientific Reports, 2021, 11, 5900.	1.6	27
36	How sticky should a virus be? The impact of virus binding and release on transmission fitness using influenza as an example. Journal of the Royal Society Interface, 2014, 11, 20131083.	1.5	26

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37	Targeting pediatric versus elderly populations for norovirus vaccines: a model-based analysis of mass vaccination options. Epidemics, 2016, 17, 42-49.	1.5	26
38	A Simple Mathematical Model Helps To Explain the Immunodominance of CD8 T Cells in Influenza A Virus Infections. Journal of Virology, 2008, 82, 7768-7772.	1.5	25
39	Oseltamivir Prophylaxis Reduces Inflammation and Facilitates Establishment of Cross-Strain Protective T Cell Memory to Influenza Viruses. PLoS ONE, 2015, 10, e0129768.	1.1	24
40	Gap junction-mediated antigen transport in immune responses. Trends in Immunology, 2007, 28, 463-466.	2.9	23
41	Effectiveness of WHO's pragmatic screening algorithm for child contacts of tuberculosis cases in resource-constrained settings: a prospective cohort study in Uganda. Lancet Respiratory Medicine,the, 2018, 6, 276-286.	5.2	23
42	A Cluster of Novel Coronavirus Disease 2019 Infections Indicating Person-to-Person Transmission Among Casual Contacts From Social Gatherings: An Outbreak Case-Contact Investigation. Open Forum Infectious Diseases, 2020, 7, ofaa231.	0.4	18
43	Four Degrees of Separation: Social Contacts and Health Providers Influence the Steps to Final Diagnosis of Active Tuberculosis Patients in Urban Uganda. BMC Infectious Diseases, 2015, 15, 361.	1.3	17
44	Impact of a Rapid Point of Care Test for Influenza on Guideline Consistent Care and Antibiotic Use. Journal of the American Board of Family Medicine, 2019, 32, 226-233.	0.8	17
45	A software package for immunologists to learn simulation modeling. BMC Immunology, 2020, 21, 1.	0.9	16
46	The impact of social distancing, contact tracing, and case isolation interventions to suppress the COVID-19 epidemic: A modeling study. Epidemics, 2021, 36, 100483.	1.5	15
47	How to Minimize the Attack Rate during Multiple Influenza Outbreaks in a Heterogeneous Population. PLoS ONE, 2012, 7, e36573.	1.1	14
48	Influenza Epitope-Specific CD8+ T Cell Avidity, but Not Cytokine Polyfunctionality, Can Be Determined by TCRÎ² Clonotype. Journal of Immunology, 2010, 185, 6850-6856.	0.4	13
49	Modeling the Potential Impact of Host Population Survival on the Evolution of M. tuberculosis Latency. PLoS ONE, 2014, 9, e105721.	1.1	12
50	A Bayesian approach to estimate parameters of ordinary differential equation. Computational Statistics, 2020, 35, 1481-1499.	0.8	12
51	An attempt to reproduce a previous meta-analysis and a new analysis regarding the impact of directly observed therapy on tuberculosis treatment outcomes. PLoS ONE, 2019, 14, e0217219.	1.1	10
52	Varying Inoculum Dose to Assess the Roles of the Immune Response and Target Cell Depletion by the Pathogen in Control of Acute Viral Infections. Bulletin of Mathematical Biology, 2020, 82, 35.	0.9	10
53	Pattern selection and control via localized feedback. Physical Review E, 2005, 72, 066208.	0.8	9
54	Sharing the burden: antigen transport and firebreaks in immune responses. Journal of the Royal Society Interface, 2009, 6, 447-454.	1.5	9

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55	Intermediate levels of vaccination coverage may minimize seasonal influenza outbreaks. PLoS ONE, 2018, 13, e0199674.	1.1	8
56	Virulence-mediated infectiousness and activity trade-offs and their impact on transmission potential of influenza patients. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200496.	1.2	8
57	Migration interacts with the local transmission of HIV in developed trade areas: A molecular transmission network analysis in China. Infection, Genetics and Evolution, 2020, 84, 104376.	1.0	8
58	Longitudinal Assessment of Immune Responses to Repeated Annual Influenza Vaccination in a Human Cohort of Adults and Teenagers. Frontiers in Immunology, 2021, 12, 642791.	2.2	7
59	Non-normality and the localized control of extended systems. Physical Review E, 2002, 66, 067201.	0.8	6
60	SARS-CoV-2 Viral and Serological Testing When College Campuses Reopen: Some Practical Considerations. Disaster Medicine and Public Health Preparedness, 2021, 15, e4-e8.	0.7	6
61	Transient dynamics and nonlinear stability of spatially extended systems. Physical Review E, 2006, 74, 036302.	0.8	5
62	Spectral theory for the failure of linear control in a nonlinear stochastic system. Physical Review E, 2002, 66, 065301.	0.8	4
63	Five approaches to the suppression of SARS-CoV-2 without intensive social distancing. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20203074.	1.2	4
64	Learning infectious disease epidemiology in a modern framework. PLoS Computational Biology, 2017, 13, e1005642.	1.5	3
65	Associations Between Relative Viral Load at Diagnosis and Influenza A Symptoms and Recovery. Open Forum Infectious Diseases, 2020, 7, ofaa494.	0.4	3
66	Neuraminidase inhibitors for influenza: fully evaluating benefits and harms. Lancet Respiratory Medicine,the, 2015, 3, e7-e8.	5.2	2
67	Influenza hemagglutinin antigenic distance measures capture trends in HAI differences and infection outcomes, but are not suitable predictive tools. Vaccine, 2020, 38, 5822-5830.	1.7	2
68	Effectiveness of neuraminidase inhibitors to prevent mortality in patients with laboratory-confirmed avian influenza A H7N9. International Journal of Infectious Diseases, 2021, 103, 573-578.	1.5	1
69	Community drivers of tuberculosis diagnostic delay in Kampala, Uganda: a retrospective cohort study. BMC Infectious Diseases, 2021, 21, 641.	1.3	1
70	Localized Control of Spatiotemporal Chaos. , 0, , 159-180.		0
71	Applying functional data analysis to assess tele-interpersonal psychotherapy's efficacy to reduce depression. Journal of Applied Statistics, 2019, 46, 203-216.	0.6	0
72	Validation of a Pictorial Survey Tool to Measure Time Use in an African Urban Setting. Sociological Methods and Research, 2019, , 004912411982615.	4.3	0

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73	Dataset of antigenic distance measures, hemagglutination inhibition, viral lung titers, and weight loss in mice and ferrets when exposed to HA-based vaccination or sub-lethal A(H1) influenza infection. Data in Brief, 2020, 32, 106118.	0.5	0