

Gergely RÃ¶st

List of Publications by Year in descending order

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79
papers

1,468
citations

394286

19
h-index

360920

35
g-index

87
all docs

87
docs citations

87
times ranked

1482
citing authors

#	ARTICLE	IF	CITATIONS
1	Risk Assessment of Novel Coronavirus COVID-19 Outbreaks Outside China. <i>Journal of Clinical Medicine</i> , 2020, 9, 571.	1.0	233
2	SEIR epidemiological model with varying infectivity and infinite delay. <i>Mathematical Biosciences and Engineering</i> , 2008, 5, 389-402.	1.0	85
3	Emergence of drug resistance: implications for antiviral control of pandemic influenza. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2007, 274, 1675-1684.	1.2	75
4	Generalization of Pairwise Models to non-Markovian Epidemics on Networks. <i>Physical Review Letters</i> , 2015, 115, 078701.	2.9	72
5	Population-Wide Emergence of Antiviral Resistance during Pandemic Influenza. <i>PLoS ONE</i> , 2008, 3, e1839.	1.1	69
6	A Delay Differential Model for Pandemic Influenza with Antiviral Treatment. <i>Bulletin of Mathematical Biology</i> , 2008, 70, 382-397.	0.9	57
7	Nonlinear model predictive control with logic constraints for COVID-19 management. <i>Nonlinear Dynamics</i> , 2020, 102, 1965-1986.	2.7	55
8	Transmission Dynamics and Final Epidemic Size of Ebola Virus Disease Outbreaks with Varying Interventions. <i>PLoS ONE</i> , 2015, 10, e0131398.	1.1	51
9	Domain-decomposition method for the global dynamics of delay differential equations with unimodal feedback. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 2655-2669.	1.0	49
10	Early Phase of the COVID-19 Outbreak in Hungary and Post-Lockdown Scenarios. <i>Viruses</i> , 2020, 12, 708.	1.5	48
11	Immuno-epidemiology of a population structured by immune status: a mathematical study of waning immunity and immune system boosting. <i>Journal of Mathematical Biology</i> , 2015, 71, 1737-1770.	0.8	40
12	Primary and secondary clarithromycin resistance in <i>Helicobacter pylori</i> and mathematical modeling of the role of macrolides. <i>Nature Communications</i> , 2021, 12, 2255.	5.8	37
13	On the global attractor of delay differential equations with unimodal feedback. <i>Discrete and Continuous Dynamical Systems</i> , 2009, 24, 1215-1224.	0.5	35
14	Persistence, Permanence and Global Stability for an n -Dimensional Nicholson System. <i>Journal of Dynamics and Differential Equations</i> , 2014, 26, 723-744.	1.0	34
15	Endemic Bubbles Generated by Delayed Behavioral Response: Global Stability and Bifurcation Switches in an SIS Model. <i>SIAM Journal on Applied Mathematics</i> , 2015, 75, 75-91.	0.8	34
16	Global analysis for spread of infectious diseases via transportation networks. <i>Journal of Mathematical Biology</i> , 2015, 70, 1411-1456.	0.8	29
17	Modeling the waning and boosting of immunity from infection or vaccination. <i>Journal of Theoretical Biology</i> , 2020, 497, 110265.	0.8	25
18	Modelling the strategies for age specific vaccination scheduling during influenza pandemic outbreaks. <i>Mathematical Biosciences and Engineering</i> , 2011, 8, 123-139.	1.0	24

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19	Post-exposure prophylaxis during pandemic outbreaks. BMC Medicine, 2009, 7, 73.	2.3	23
20	Dichotomy results for delay differential equations with negative Schwarzian derivative. Nonlinear Analysis: Real World Applications, 2010, 11, 1422-1430.	0.9	23
21	Microsimulation based quantitative analysis of COVID-19 management strategies. PLoS Computational Biology, 2022, 18, e1009693.	1.5	19
22	Global dynamics in a commodity market model. Journal of Mathematical Analysis and Applications, 2013, 398, 707-714.	0.5	16
23	Stability Switches Induced by Immune System Boosting in an SIRS Model with Discrete and Distributed Delays. SIAM Journal on Applied Mathematics, 2017, 77, 905-923.	0.8	16
24	COVID-19 Seroprevalence in Canada Modelling Waning and Boosting COVID-19 Immunity in Canada a Canadian Immunization Research Network Study. Vaccines, 2022, 10, 17.	2.1	16
25	Pairwise approximation for SIR -type network epidemics with non-Markovian recovery. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170695.	1.0	15
26	Assessing systemic and non-systemic transmission risk of tick-borne encephalitis virus in Hungary. PLoS ONE, 2019, 14, e0217206.	1.1	15
27	Rich Bifurcation Structure in a Two-Patch Vaccination Model. SIAM Journal on Applied Dynamical Systems, 2015, 14, 980-1017.	0.7	14
28	On the global attractivity controversy for a delay model of hematopoiesis. Applied Mathematics and Computation, 2007, 190, 846-850.	1.4	13
29	SIS model on homogeneous networks with threshold type delayed contact reduction. Computers and Mathematics With Applications, 2013, 66, 1534-1546.	1.4	13
30	Epidemic Spread and Variation of Peak Times in Connected Regions Due to Travel-Related Infections—Dynamics of an Antigravity-Type Delay Differential Model. SIAM Journal on Applied Dynamical Systems, 2013, 12, 1722-1762.	0.7	13
31	On Spread of Phage Infection of Bacteria in a Petri Dish. SIAM Journal on Applied Mathematics, 2012, 72, 670-688.	0.8	12
32	Global Dynamics of a Novel Delayed Logistic Equation Arising from Cell Biology. Journal of Nonlinear Science, 2020, 30, 397-418.	1.0	12
33	Impact of Spring Bird Migration on the Range Expansion of Ixodes scapularis Tick Population. Bulletin of Mathematical Biology, 2016, 78, 138-168.	0.9	11
34	Neimark–Sacker bifurcation for periodic delay differential equations. Nonlinear Analysis: Theory, Methods & Applications, 2005, 60, 1025-1044.	0.6	10
35	A hybrid PDE–ABM model for viral dynamics with application to SARS-CoV-2 and influenza. Royal Society Open Science, 2021, 8, 210787.	1.1	10
36	Malaria dynamics with long incubation period in hosts. Computers and Mathematics With Applications, 2014, 68, 915-930.	1.4	9

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37	IMPACT OF NON-MARKOVIAN RECOVERY ON NETWORK EPIDEMICS. , 2016, , .		9
38	Reconstructing social mixing patterns via weighted contact matrices from online and representative surveys. <i>Scientific Reports</i> , 2022, 12, 4690.	1.6	9
39	Delay in booster schedule as a control parameter in vaccination dynamics. <i>Journal of Mathematical Biology</i> , 2019, 79, 2157-2182.	0.8	8
40	Global dynamics for the spread of ectoparasite-borne diseases. <i>Nonlinear Analysis: Real World Applications</i> , 2014, 18, 100-107.	0.9	7
41	Spatially heterogeneous populations with mixed negative and positive local density dependence. <i>Theoretical Population Biology</i> , 2016, 109, 6-15.	0.5	7
42	Controlling Mackeyâ€“Glass chaos. <i>Chaos</i> , 2017, 27, 114321.	1.0	7
43	Large number of endemic equilibria for disease transmission models in patchy environment. <i>Mathematical Biosciences</i> , 2014, 258, 201-222.	0.9	6
44	Fleeing lockdown and its impact on the size of epidemic outbreaks in the source and target regions â€“ a COVID-19 lesson. <i>Scientific Reports</i> , 2021, 11, 9233.	1.6	6
45	Structure of the Global Attractors in a Model for Ectoparasite Borne Diseases. <i>Biomath</i> , 2012, 1, .	0.3	5
46	Large time behavior of a linear delay differential equation with asymptotically small coefficient. <i>Boundary Value Problems</i> , 2014, 2014, .	0.3	5
47	Uniform Persistence in a Model for Bluetongue Dynamics. <i>SIAM Journal on Mathematical Analysis</i> , 2014, 46, 1160-1184.	0.9	5
48	Age-dependent intra-specific competition in pre-adult life stages and its effects on adult population dynamics. <i>European Journal of Applied Mathematics</i> , 2016, 27, 131-156.	1.4	5
49	A monotonic relationship between the variability of the infectious period and final size in pairwise epidemic modelling. <i>Journal of Mathematics in Industry</i> , 2019, 9, .	0.7	5
50	Unbounded and blow-up solutions for a delay logistic equation with positive feedback. <i>Communications on Pure and Applied Analysis</i> , 2018, 17, 2845-2854.	0.4	5
51	Global stability for SIR and SIRS models with nonlinear incidence and removal terms via Dulac functions. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2016, 21, 1101-1117.	0.5	5
52	Backward Bifurcation in SIVS Model with Immigration of Non-Infectives. <i>Biomath</i> , 2013, 2, .	0.3	4
53	Modeling the transmission dynamics of varicella in Hungary. <i>Journal of Mathematics in Industry</i> , 2020, 10, .	0.7	4
54	Periodic Orbits and Global Stability for a Discontinuous SIR Model with Delayed Control. <i>Qualitative Theory of Dynamical Systems</i> , 2020, 19, 1.	0.8	3

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55	Stability and oscillations of multistage SIS models depend on the number of stages. Applied Mathematics and Computation, 2020, 380, 125259.	1.4	3
56	Population dynamics of epidemic and endemic states of drug-resistance emergence in infectious diseases. PeerJ, 2017, 5, e2817.	0.9	3
57	Global stability of a multistrain SIS model with superinfection. Mathematical Biosciences and Engineering, 2016, 13, 4-4.	1.0	3
58	Dynamics of an SIS model on homogeneous networks with delayed reduction of contact numbers. Biomath, 2012, 1, .	0.3	2
59	Backward bifurcation for pulse vaccination. Nonlinear Analysis: Hybrid Systems, 2014, 14, 99-113.	2.1	2
60	Global dynamics of delay recruitment models with maximized lifespan. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	0.7	2
61	HOW THE INTERVAL BETWEEN PRIMARY AND BOOSTER VACCINATION AFFECTS LONG-TERM DISEASE DYNAMICS. , 2017, , 60-71.		2
62	Symptom-Based Testing in a Compartmental Model of Covid-19. Infosys Science Foundation Series, 2021, , 357-376.	0.3	2
63	Exotic Bifurcations in Three Connected Populations with Allee Effect. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	0.7	2
64	In Silico Evaluation of Paxlovid's Pharmacometrics for SARS-CoV-2: A Multiscale Approach. Viruses, 2022, 14, 1103.	1.5	2
65	On an approximate method for the delay logistic equation. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 3470-3474.	1.7	1
66	Multiregional SIR model with infection during transportation. Biomath, 2012, 1, .	0.3	1
67	Risk of Infectious Disease Outbreaks by Imported Cases with Application to the European Football Championship 2012. International Journal of Stochastic Analysis, 2013, 2013, 1-9.	0.3	1
68	Stability Threshold for Scalar Linear Periodic Delay Differential Equations. Canadian Mathematical Bulletin, 2016, 59, 849-857.	0.3	1
69	Hopf bifurcation for Wright-type delay differential equations: The simplest formula, period estimates, and the absence of folds. Communications in Nonlinear Science and Numerical Simulation, 2020, 84, 105188.	1.7	1
70	Global convergence and uniform bounds of fluctuating prices in a single commodity market model of Bălaş and Mackey. Electronic Journal of Qualitative Theory of Differential Equations, 2012, , 1-9.	0.2	1
71	Global dynamics of a compartmental system modeling ectoparasite-borne diseases. Acta Scientiarum Mathematicarum, 2014, 80, 553-572.	0.2	1
72	MODELLING MALARIA DYNAMICS IN TEMPERATE REGIONS WITH LONG TERM INCUBATION PERIOD. , 2014, , .		0

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73	Variance of Infectious Periods and Reproduction Numbers for Network Epidemics with Non-Markovian Recovery. <i>Mathematics in Industry</i> , 2017, , 171-178.	0.1	0
74	Global dynamics of an epidemiological model with age-of-infection dependent treatment rate. <i>Ricerche Di Matematica</i> , 2018, 67, 125-140.	0.6	0
75	Global stability of a multistrain SIS model with superinfection and patch structure. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 9671-9680.	1.2	0
76	Hopf Bifurcations in Nicholson's Blowfly Equation are Always Supercritical. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2021, 31, 2150071.	0.7	0
77	SEI MODEL WITH VARYING TRANSMISSION AND MORTALITY RATES. , 2011, , .		0
78	Convergence of Solutions in a Mean-Field Model of Go-or-Grow Type with Reservation of Sites for Proliferation and Cell Cycle Delay. <i>Mathematics in Industry</i> , 2019, , 381-387.	0.1	0
79	Challenges in the Modelling and Control of Varicella in Hungary. <i>Mathematics in Industry</i> , 2019, , 249-255.	0.1	0