

Istvan Z Kiss

List of Publications by Year in descending order

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63
papers

2,558
citations

230014

27
h-index

223390

49
g-index

63
all docs

63
docs citations

63
times ranked

2260
citing authors

#	ARTICLE	IF	CITATIONS
1	How can risk of COVID-19 transmission be minimised in domiciliary care for older people: development, parameterisation and initial results of a simple mathematical model. <i>Epidemiology and Infection</i> , 2022, 150, .	1.0	2
2	Network analysis of England's single parent household COVID-19 control policy impact: a proof-of-concept study. <i>Epidemiology and Infection</i> , 2022, , 1-20.	1.0	1
3	Optimal timing of one-shot interventions for epidemic control. <i>PLoS Computational Biology</i> , 2021, 17, e1008763.	1.5	44
4	The Impact of Contact Structure and Mixing on Control Measures and Disease-Induced Herd Immunity in Epidemic Models: A Mean-Field Model Perspective. <i>Bulletin of Mathematical Biology</i> , 2021, 83, 117.	0.9	8
5	Key questions for modelling COVID-19 exit strategies. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2020, 287, 20201405.	1.2	106
6	Epidemic threshold in pairwise models for clustered networks: closures and fast correlations. <i>Journal of Mathematical Biology</i> , 2019, 79, 823-860.	0.8	7
7	Mean-field models for non-Markovian epidemics on networks. <i>Journal of Mathematical Biology</i> , 2018, 76, 755-778.	0.8	42
8	Edge-Based Compartmental Modelling of an SIR Epidemic on a Dual-Layer Static–Dynamic Multiplex Network with Tunable Clustering. <i>Bulletin of Mathematical Biology</i> , 2018, 80, 2698-2733.	0.9	9
9	Constraints and entropy in a model of network evolution. <i>European Physical Journal B</i> , 2017, 90, 1.	0.6	4
10	Super compact pairwise model for SIS epidemic on heterogeneous networks. <i>Journal of Complex Networks</i> , 2016, 4, 187-200.	1.1	15
11	Compact pairwise models for epidemics with multiple infectious stages on degree heterogeneous and clustered networks. <i>Journal of Theoretical Biology</i> , 2016, 407, 387-400.	0.8	4
12	Oscillating epidemics in a dynamic network model: stochastic and mean-field analysis. <i>Journal of Mathematical Biology</i> , 2016, 72, 1153-1176.	0.8	27
13	Beyond clustering: mean-field dynamics on networks with arbitrary subgraph composition. <i>Journal of Mathematical Biology</i> , 2016, 72, 255-281.	0.8	12
14	Solvable non-Markovian dynamic network. <i>Physical Review E</i> , 2015, 92, 042801.	0.8	19
15	Analysis of an epidemic model with awareness decay on regular random networks. <i>Journal of Theoretical Biology</i> , 2015, 365, 457-468.	0.8	27
16	Exact Equations for SIR Epidemics on Tree Graphs. <i>Bulletin of Mathematical Biology</i> , 2015, 77, 614-645.	0.9	33
17	Exact deterministic representation of Markovian SIR epidemics on networks with and without loops. <i>Journal of Mathematical Biology</i> , 2015, 70, 437-464.	0.8	28
18	Impact of constrained rewiring on network structure and node dynamics. <i>Physical Review E</i> , 2014, 90, 052806.	0.8	11

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19	Approximate Master Equations for Dynamical Processes on Graphs. <i>Mathematical Modelling of Natural Phenomena</i> , 2014, 9, 43-57.	0.9	7
20	Interdependency and hierarchy of exact and approximate epidemic models on networks. <i>Journal of Mathematical Biology</i> , 2014, 69, 183-211.	0.8	15
21	Higher-order structure and epidemic dynamics in clustered networks. <i>Journal of Theoretical Biology</i> , 2014, 348, 21-32.	0.8	31
22	A Class of Pairwise Models for Epidemic Dynamics on Weighted Networks. <i>Bulletin of Mathematical Biology</i> , 2013, 75, 466-490.	0.9	28
23	From exact stochastic to mean-field ODE models: a new approach to prove convergence results. <i>IMA Journal of Applied Mathematics</i> , 2013, 78, 945-964.	0.8	18
24	Modelling approaches for simple dynamic networks and applications to disease transmission models. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 1332-1355.	1.0	47
25	Epidemic threshold and control in a dynamic network. <i>Physical Review E</i> , 2012, 85, 016103.	0.8	56
26	Models to capture the potential for disease transmission in domestic sheep flocks. <i>Preventive Veterinary Medicine</i> , 2012, 106, 174-184.	0.7	6
27	Approximating evolutionary dynamics on networks using a Neighbourhood Configuration model. <i>Journal of Theoretical Biology</i> , 2012, 312, 13-21.	0.8	8
28	New Moment Closures Based on A Priori Distributions with Applications to Epidemic Dynamics. <i>Bulletin of Mathematical Biology</i> , 2012, 74, 1501-1515.	0.9	11
29	From Markovian to pairwise epidemic models and the performance of moment closure approximations. <i>Journal of Mathematical Biology</i> , 2012, 64, 1021-1042.	0.8	50
30	Differential equation approximations of stochastic network processes: An operator semigroup approach. <i>Networks and Heterogeneous Media</i> , 2012, 7, 43-58.	0.5	7
31	Multiple sources and routes of information transmission: Implications for epidemic dynamics. <i>Mathematical Biosciences</i> , 2011, 231, 197-209.	0.9	35
32	Tools to study trends in community structure: Application to fish and livestock trading networks. <i>Preventive Veterinary Medicine</i> , 2011, 99, 225-228.	0.7	19
33	Exact epidemic models on graphs using graph-automorphism driven lumping. <i>Journal of Mathematical Biology</i> , 2011, 62, 479-508.	0.8	89
34	The potential spread of highly pathogenic avian influenza virus via dynamic contacts between poultry premises in Great Britain. <i>BMC Veterinary Research</i> , 2011, 7, 59.	0.7	19
35	Can epidemic models describe the diffusion of topics across disciplines?. <i>Journal of Informetrics</i> , 2010, 4, 74-82.	1.4	71
36	Large-scale properties of clustered networks: implications for disease dynamics. <i>Journal of Biological Dynamics</i> , 2010, 4, 431-445.	0.8	20

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37	The impact of information transmission on epidemic outbreaks. <i>Mathematical Biosciences</i> , 2010, 225, 1-10.	0.9	172
38	A Contact-Network-Based Formulation of a Preferential Mixing Model. <i>Bulletin of Mathematical Biology</i> , 2009, 71, 888-905.	0.9	14
39	Contact structures in the poultry industry in Great Britain: Exploring transmission routes for a potential avian influenza virus epidemic.. <i>BMC Veterinary Research</i> , 2008, 4, 27.	0.7	67
40	A network approach to modeling population aggregation and genetic control of pest insects. <i>Theoretical Population Biology</i> , 2008, 74, 324-331.	0.5	12
41	The effect of network mixing patterns on epidemic dynamics and the efficacy of disease contact tracing. <i>Journal of the Royal Society Interface</i> , 2008, 5, 791-799.	1.5	67
42	Estimates for local and movement-based transmission of bovine tuberculosis in British cattle. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 1001-1005.	1.2	110
43	Comment on "Properties of highly clustered networks" <i>Physical Review E</i> , 2008, 78, 048101.	0.8	31
44	Disease dynamics over very different time-scales: foot-and-mouth disease and scrapie on the network of livestock movements in the UK. <i>Journal of the Royal Society Interface</i> , 2007, 4, 907-916.	1.5	143
45	Demographic risk factors for classical and atypical scrapie in Great Britain. <i>Journal of General Virology</i> , 2007, 88, 3486-3492.	1.3	35
46	Parasite strain coexistence in a heterogeneous host population. <i>Oikos</i> , 2006, 115, 495-503.	1.2	2
47	Infectious disease control using contact tracing in random and scale-free networks. <i>Journal of the Royal Society Interface</i> , 2006, 3, 55-62.	1.5	96
48	The network of sheep movements within Great Britain: network properties and their implications for infectious disease spread. <i>Journal of the Royal Society Interface</i> , 2006, 3, 669-677.	1.5	195
49	The effect of contact heterogeneity and multiple routes of transmission on final epidemic size. <i>Mathematical Biosciences</i> , 2006, 203, 124-136.	0.9	94
50	Parameterization of individual-based models: Comparisons with deterministic mean-field models. <i>Journal of Theoretical Biology</i> , 2006, 239, 289-297.	0.8	25
51	Demographic structure and pathogen dynamics on the network of livestock movements in Great Britain. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 1999-2007.	1.2	198
52	Modelling the initial spread of foot-and-mouth disease through animal movements. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 2729-2735.	1.2	131
53	Disease contact tracing in random and clustered networks. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 1407-1414.	1.2	88
54	Effects of constant electric fields on the buoyant stability of reaction fronts. <i>Physical Review E</i> , 2005, 71, 026224.	0.8	8

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55	Dispersion curves in the diffusional instability of autocatalytic reaction fronts. <i>Physical Review E</i> , 2005, 72, 026219.	0.8	18
56	Homogenization induced by chaotic mixing and diffusion in an oscillatory chemical reaction. <i>Physical Review E</i> , 2004, 70, 026216.	0.8	9
57	Noise-sustained oscillation and synchronization of excitable media with stirring. , 2004, 5471, 193.		0
58	The structure of flame filaments in chaotic flows. <i>Physica D: Nonlinear Phenomena</i> , 2003, 176, 67-81.	1.3	17
59	Combustion initiation and extinction in a 2D chaotic flow. <i>Physica D: Nonlinear Phenomena</i> , 2003, 183, 175-189.	1.3	20
60	Travelling waves in the Oregonator model for the BZ reaction. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 5448.	1.3	8
61	Synchronization and Oscillator Death in Oscillatory Media with Stirring. <i>Physical Review Letters</i> , 2003, 91, 084101.	2.9	35
62	Noise-Sustained Coherent Oscillation of Excitable Media in a Chaotic Flow. <i>Physical Review Letters</i> , 2003, 91, 150601.	2.9	18
63	Generation and analysis of networks with a prescribed degree sequence and subgraph family: higher-order structure matters. <i>Journal of Complex Networks</i> , 0, , cnw011.	1.1	9