Stefano Merler

List of Publications by Year in descending order

135 papers	11,554 citations	61984 43 h-index	37204 96 g-index
158 all docs	158 docs citations	158 times ranked	14650 citing authors

#	Article	IF	Citations
1	The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak. Science, 2020, 368, 395-400.	12.6	2,784
2	Changes in contact patterns shape the dynamics of the COVID-19 outbreak in China. Science, 2020, 368, 1481-1486.	12.6	942
3	Modelling the impact of testing, contact tracing and household quarantine on second waves of COVID-19. Nature Human Behaviour, 2020, 4, 964-971.	12.0	605
4	Evolving epidemiology and transmission dynamics of coronavirus disease 2019 outside Hubei province, China: a descriptive and modelling study. Lancet Infectious Diseases, The, 2020, 20, 793-802.	9.1	541
5	Spread of Zika virus in the Americas. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4334-E4343.	7.1	249
6	Spatiotemporal spread of the 2014 outbreak of Ebola virus disease in Liberia and the effectiveness of non-pharmaceutical interventions: a computational modelling analysis. Lancet Infectious Diseases, The, 2015, 15, 204-211.	9.1	226
7	The role of population heterogeneity and human mobility in the spread of pandemic influenza. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 557-565.	2.6	223
8	Comparing large-scale computational approaches to epidemic modeling: Agent-based versus structured metapopulation models. BMC Infectious Diseases, 2010, 10, 190.	2.9	222
9	Measurability of the epidemic reproduction number in data-driven contact networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12680-12685.	7.1	199
10	The RAPIDD ebola forecasting challenge: Synthesis and lessons learnt. Epidemics, 2018, 22, 13-21.	3.0	185
11	Inferring the Structure of Social Contacts from Demographic Data in the Analysis of Infectious Diseases Spread. PLoS Computational Biology, 2012, 8, e1002673.	3.2	166
12	Inferring high-resolution human mixing patterns for disease modeling. Nature Communications, 2021, 12, 323.	12.8	161
13	The early phase of the COVID-19 epidemic in Lombardy, Italy. Epidemics, 2021, 37, 100528.	3.0	158
14	The Effect of Risk Perception on the 2009 H1N1 Pandemic Influenza Dynamics. PLoS ONE, 2011, 6, e16460.	2.5	152
15	Towards a functional atlas of human white matter. Human Brain Mapping, 2015, 36, 3117-3136.	3.6	150
16	Mitigation Measures for Pandemic Influenza in Italy: An Individual Based Model Considering Different Scenarios. PLoS ONE, 2008, 3, e1790.	2.5	143
17	Mapping critical cortical hubs and white matter pathways by direct electrical stimulation: an original functional atlas of the human brain. NeuroImage, 2020, 205, 116237.	4.2	130
18	Spontaneous behavioural changes in response to epidemics. Journal of Theoretical Biology, 2009, 260, 31-40.	1.7	127

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19	Association of Age With Likelihood of Developing Symptoms and Critical Disease Among Close Contacts Exposed to Patients With Confirmed SARS-CoV-2 Infection in Italy. JAMA Network Open, 2021, 4, e211085.	5.9	127
20	Chikungunya Virus in North-Eastern Italy: A Seroprevalence Survey. American Journal of Tropical Medicine and Hygiene, 2010, 82, 508-511.	1.4	123
21	Transmission Potential of Chikungunya Virus and Control Measures: The Case of Italy. PLoS ONE, 2011, 6, e18860.	2.5	122
22	Epidemiological characteristics of COVID-19 cases and estimates of the reproductive numbers 1 month into the epidemic, Italy, 28 January to 31 March 2020. Eurosurveillance, 2020, 25, .	7.0	121
23	Entropy-based gene ranking without selection bias for the predictive classification of microarray data. BMC Bioinformatics, 2003, 4, 54.	2.6	116
24	Risk perception and effectiveness of uncoordinated behavioral responses in an emerging epidemic. Mathematical Biosciences, 2012, 238, 80-89.	1.9	109
25	Determinants of the Spatiotemporal Dynamics of the 2009 H1N1 Pandemic in Europe: Implications for Real-Time Modelling. PLoS Computational Biology, 2011, 7, e1002205.	3.2	102
26	Algebraic stability indicators for ranked lists in molecular profiling. Bioinformatics, 2008, 24, 258-264.	4.1	85
27	Social Contact Structures and Time Use Patterns in the Manicaland Province of Zimbabwe. PLoS ONE, 2017, 12, e0170459.	2.5	84
28	Despite vaccination, China needs non-pharmaceutical interventions to prevent widespread outbreaks of COVID-19 in 2021. Nature Human Behaviour, 2021, 5, 1009-1020.	12.0	81
29	Retrospective analysis of the Italian exit strategy from COVID-19 lockdown. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	72
30	Searching for mechanisms of synchrony in spatially structured gamebird populations. Journal of Animal Ecology, 2000, 69, 620-638.	2.8	71
31	Little Italy: An Agent-Based Approach to the Estimation of Contact Patterns- Fitting Predicted Matrices to Serological Data. PLoS Computational Biology, 2010, 6, e1001021.	3.2	69
32	Structural and functional integration between dorsal and ventral language streams as revealed by blunt dissection and direct electrical stimulation. Human Brain Mapping, 2016, 37, 3858-3872.	3.6	69
33	Machine learning methods for predictive proteomics. Briefings in Bioinformatics, 2007, 9, 119-128.	6.5	65
34	Perspectives on the Impact of Varicella Immunization on Herpes Zoster. A Model-Based Evaluation from Three European Countries. PLoS ONE, 2013, 8, e60732.	2.5	64
35	Impact of a Nationwide Lockdown on SARS-CoV-2 Transmissibility, Italy. Emerging Infectious Diseases, 2021, 27, 267-270.	4.3	64
36	Perspectives on model forecasts of the 2014â€“2015 Ebola epidemic in West Africa: lessons and the way forward. BMC Medicine, 2017, 15, 42.	5.5	63

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37	An accelerated procedure for recursive feature ranking on microarray data. Neural Networks, 2003, 16, 641-648.	5.9	62
38	Geographical Information Systems and Bootstrap Aggregation (Bagging) of Tree-Based Classifiers for Lyme Disease Risk Prediction in Trentino, Italian Alps. Journal of Medical Entomology, 2002, 39, 485-492.	1.8	61
39	Cryptic transmission of SARS-CoV-2 and the first COVID-19 wave. Nature, 2021, 600, 127-132.	27.8	61
40	Evaluating vaccination strategies for reducing infant respiratory syncytial virus infection in low-income settings. BMC Medicine, 2015, 13, 49.	5.5	56
41	Containing Ebola at the Source with Ring Vaccination. PLoS Neglected Tropical Diseases, 2016, 10, e0005093.	3.0	54
42	Age-specific SARS-CoV-2 infection fatality ratio and associated risk factors, Italy, February to April 2020. Eurosurveillance, 2020, 25, .	7.0	51
43	The 2014 Ebola virus disease outbreak in Pujehun, Sierra Leone: epidemiology and impact of interventions. BMC Medicine, 2015, 13, 281.	5.5	50
44	The Role of Climatic and Density Dependent Factors in Shaping Mosquito Population Dynamics: The Case of Culex pipiens in Northwestern Italy. PLoS ONE, 2016, 11, e0154018.	2.5	48
45	Potential short-term outcome of an uncontrolled COVID-19 epidemic in Lombardy, Italy, February to March 2020. Eurosurveillance, 2020, 25, .	7.0	47
46	Coinfection can trigger multiple pandemic waves. Journal of Theoretical Biology, 2008, 254, 499-507.	1.7	46
47	Impact of tiered restrictions on human activities and the epidemiology of the second wave of COVID-19 in Italy. Nature Communications, 2021, 12, 4570.	12.8	45
48	Transmission dynamics of the ongoing chikungunya outbreak in Central Italy: from coastal areas to the metropolitan city of Rome, summer 2017. Eurosurveillance, 2017, 22, .	7.0	44
49	Measles immunity gaps and the progress towards elimination: a multi-country modelling analysis. Lancet Infectious Diseases, The, 2017, 17, 1089-1097.	9.1	42
50	Synchrony, scale and temporal dynamics of rock partridge (Alectoris graeca saxatilis) populations in the Dolomites. Journal of Animal Ecology, 1999, 68, 540-549.	2.8	40
51	The effect of COVID-19 vaccination in Italy and perspectives for living with the virus. Nature Communications, 2021, 12, 7272.	12.8	40
52	Model predictions and evaluation of possible control strategies for the 2009 A/H1N1v influenza pandemic in Italy. Epidemiology and Infection, 2011, 139, 68-79.	2.1	39
53	The effect of interspecific competition on the temporal dynamics of Aedes albopictus and Culex pipiens. Parasites and Vectors, 2017, 10, 102.	2.5	39
54	Model-Based Comprehensive Analysis of School Closure Policies for Mitigating Influenza Epidemics and Pandemics. PLoS Computational Biology, 2016, 12, e1004681.	3.2	39

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55	Assessing the potential risk of Zika virus epidemics in temperate areas with established Aedes albopictus populations. Eurosurveillance, 2016, 21, .	7.0	39
56	Quantifying the spatial spread of dengue in a non-endemic Brazilian metropolis via transmission chain reconstruction. Nature Communications, 2018, 9, 2837.	12.8	38
57	Classification Tree Methods for Analysis of Mesoscale Distribution of Ixodes ricinus (Acari: Ixodidae) in Trentino, Italian Alps. Journal of Medical Entomology, 1996, 33, 888-893.	1.8	37
58	Impact of mass effect, tumor location, age, and surgery on the cognitive outcome of patients with high-grade gliomas: a longitudinal study. Neuro-Oncology Practice, 2017, 4, 229-240.	1.6	37
59	Hope-Simpson's Progressive Immunity Hypothesis as a Possible Explanation for Herpes Zoster Incidence Data. American Journal of Epidemiology, 2013, 177, 1134-1142.	3.4	35
60	Potential Risk of Dengue and Chikungunya Outbreaks in Northern Italy Based on a Population Model of Aedes albopictus (Diptera: Culicidae). PLoS Neglected Tropical Diseases, 2016, 10, e0004762.	3.0	34
61	Pressure on the Health-Care System and Intensive Care Utilization During the COVID-19 Outbreak in the Lombardy Region of Italy: A Retrospective Observational Study in 43,538 Hospitalized Patients. American Journal of Epidemiology, 2022, 191, 137-146.	3.4	34
62	Intrinsic generation time of the SARS-CoV-2 Omicron variant: An observational study of household transmission. Lancet Regional Health - Europe, The, 2022, 19, 100446.	5.6	34
63	Parallelizing AdaBoost by weights dynamics. Computational Statistics and Data Analysis, 2007, 51, 2487-2498.	1.2	32
64	Modeling socio-demography to capture tuberculosis transmission dynamics in a low burden setting. Journal of Theoretical Biology, 2011, 289, 197-205.	1.7	32
65	The role of different social contexts in shaping influenza transmission during the 2009 pandemic. Scientific Reports, 2014, 4, 7218.	3.3	32
66	Containing the accidental laboratory escape of potential pandemic influenza viruses. BMC Medicine, 2013, 11, 252.	5.5	30
67	The impact of demographic changes on the epidemiology of herpes zoster: Spain as a case study. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20142509.	2.6	30
68	Spatiotemporal dynamics of the Ebola epidemic in Guinea and implications for vaccination and disease elimination: a computational modeling analysis. BMC Medicine, 2016, 14, 130.	5.5	30
69	The Epidemiology of Herpes Zoster After Varicella Immunization Under Different Biological Hypotheses: Perspectives From Mathematical Modeling. American Journal of Epidemiology, 2016, 183, 765-773.	3.4	30
70	Effectiveness and economic assessment of routine larviciding for prevention of chikungunya and dengue in temperate urban settings in Europe. PLoS Neglected Tropical Diseases, 2017, 11, e0005918.	3.0	30
71	The impact of demographic changes, exogenous boosting and new vaccination policies on varicella and herpes zoster in Italy: a modelling and cost-effectiveness study. BMC Medicine, 2018, 16, 117.	5.5	29
72	Deciphering the relative weights of demographic transition and vaccination in the decrease of measles incidence in Italy. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132676.	2.6	28

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73	Transmission Potential and Design of Adequate Control Measures for Marburg Hemorrhagic Fever. PLoS ONE, 2012, 7, e50948.	2.5	28
74	Age-prioritized use of antivirals during an influenza pandemic. BMC Infectious Diseases, 2009, 9, 117.	2.9	27
75	An individual-based model of hepatitis A transmission. Journal of Theoretical Biology, 2009, 259, 478-488.	1.7	27
76	Quantifying the transmission dynamics of MRSA in the community and healthcare settings in a low-prevalence country. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14599-14605.	7.1	26
77	Combining feature selection and DTW for time-varying functional genomics. IEEE Transactions on Signal Processing, 2006, 54, 2436-2443.	5.3	24
78	The hidden burden of measles in Ethiopia: how distance to hospital shapes the disease mortality rate. BMC Medicine, 2018, 16, 177.	5.5	23
79	The introduction of â€˜No jab, No schoolâ€™ policy and the refinement of measles immunisation strategies in high-income countries. BMC Medicine, 2019, 17, 86.	5.5	23
80	School closure policies at municipality level for mitigating influenza spread: a model-based evaluation. BMC Infectious Diseases, 2016, 16, 576.	2.9	22
81	Semisupervised Learning for Molecular Profiling. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2005, 2, 110-118.	3.0	21
82	The Impact of the Unstructured Contacts Component in Influenza Pandemic Modeling. PLoS ONE, 2008, 3, e1519.	2.5	21
83	First report of the influence of temperature on the bionomics and population dynamics of Aedes koreicus, a new invasive alien species in Europe. Parasites and Vectors, 2019, 12, 524.	2.5	20
84	Co-circulation of SARS-CoV-2 Alpha and Gamma variants in Italy, February and March 2021. Eurosurveillance, 2022, 27, .	7.0	20
85	The RAPIDD Ebola forecasting challenge: Model description and synthetic data generation. Epidemics, 2018, 22, 3-12.	3.0	19
86	Human mobility and population heterogeneity in the spread of an epidemic. Procedia Computer Science, 2010, 1, 2237-2244.	2.0	17
87	Pandemic Influenza A/H1N1pdm in Italy: Age, Risk and Population Susceptibility. PLoS ONE, 2013, 8, e74785.	2.5	17
88	A normalized dataset of 1821 cortical and subcortical functional responses collected during direct electrical stimulation in patients undergoing awake brain surgery. Data in Brief, 2020, 28, 104892.	1.0	17
89	Spatial modes for transmission of chikungunya virus during a large chikungunya outbreak in Italy: a modeling analysis. BMC Medicine, 2020, 18, 226.	5.5	17
90	A comparative analysis of the 2007 and 2017 Italian chikungunya outbreaks and implication for public health response. PLoS Neglected Tropical Diseases, 2020, 14, e0008159.	3.0	17

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91	The COVID-19 outbreak in Sichuan, China: Epidemiology and impact of interventions. PLoS Computational Biology, 2020, 16, e1008467.	3.2	17
92	First outbreak of Zika virus in the continental United States: a modelling analysis. Eurosurveillance, 2017, 22, .	7.0	17
93	Model-based evaluation of alternative reactive class closure strategies against COVID-19. Nature Communications, 2022, 13, 322.	12.8	17
94	BIAS-VARIANCE CONTROL VIA HARD POINTS SHAVING. International Journal of Pattern Recognition and Artificial Intelligence, 2004, 18, 891-903.	1.2	16
95	Effectiveness of Ultra-Low Volume insecticide spraying to prevent dengue in a non-endemic metropolitan area of Brazil. PLoS Computational Biology, 2019, 15, e1006831.	3.2	16
96	Automatic model selection in cost-sensitive boosting. Information Fusion, 2003, 4, 3-10.	19.1	15
97	Heterogeneity in social and epidemiological factors determines the risk of measles outbreaks. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30118-30125.	7.1	14
98	Modeling the interplay between demography, social contact patterns, and SARS-CoV-2 transmission in the South West Shewa Zone of Oromia Region, Ethiopia. BMC Medicine, 2021, 19, 89.	5.5	13
99	Effectiveness of contact investigations for tuberculosis control in Arkansas. Journal of Theoretical Biology, 2015, 380, 238-246.	1.7	12
100	Population dynamics of wild rodents induce stochastic fadeouts of a zoonotic pathogen. Journal of Animal Ecology, 2017, 86, 451-459.	2.8	12
101	Terminated Rampâ€“Support Vector Machines: A nonparametric data dependent kernel. Neural Networks, 2006, 19, 1597-1611.	5.9	11
102	Quantifying the risk of local Zika virus transmission in the contiguous US during the 2015â€“2016 ZIKV epidemic. BMC Medicine, 2018, 16, 195.	5.5	11
103	Tuning Cost-Sensitive Boosting and Its Application to Melanoma Diagnosis. Lecture Notes in Computer Science, 2001, , 32-42.	1.3	11
104	Characterizing the transmission patterns of seasonal influenza in Italy: lessons from the last decade. BMC Public Health, 2022, 22, 19.	2.9	11
105	The New Quadrivalent Adjuvanted Influenza Vaccine for the Italian Elderly: A Health Technology Assessment. International Journal of Environmental Research and Public Health, 2022, 19, 4166.	2.6	11
106	Modeling the impact of changes in day-care contact patterns on the dynamics of varicella transmission in France between 1991 and 2015. PLoS Computational Biology, 2018, 14, e1006334.	3.2	10
107	The containment of potential outbreaks triggered by imported Chikungunya cases in Italy: a cost utility epidemiological assessment of vector control measures. Scientific Reports, 2018, 8, 9034.	3.3	10
108	COVID-19 response: effectiveness of weekly rapid risk assessments, Italy. Bulletin of the World Health Organization, 2022, 100, 161-167.	3.3	10

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109	Detecting a Surprisingly Low Transmission Distance in the Early Phase of the 2009 Influenza Pandemic. Scientific Reports, 2017, 7, 12324.	3.3	9
110	Different Clinical Phenotypes of Embolic Stroke of Undetermined Source: A Subgroup Analysis of 86 Patients. Journal of Stroke and Cerebrovascular Diseases, 2018, 27, 3578-3586.	1.6	9
111	A Grid Environment for High-Throughput Proteomics. IEEE Transactions on Nanobioscience, 2007, 6, 117-123.	3.3	8
112	Integrating gene expression profiling and clinical data. International Journal of Approximate Reasoning, 2008, 47, 58-69.	3.3	8
113	Household transmission and disease transmissibility of a large HAV outbreak in Lazio, Italy, 2016â€“2017. Epidemics, 2019, 29, 100351.	3.0	8
114	Parental vaccination to reduce measles immunity gaps in Italy. ELife, 2019, 8, .	6.0	8
115	A quantitative assessment of epidemiological parameters required to investigate COVID-19 burden. Epidemics, 2021, 37, 100530.	3.0	8
116	Selection of Tree-Biased Classifiers with the Bootstrap 632+ Rule. Biometrical Journal, 1997, 39, 369-382.	1.0	7
117	Epidemiology and transmission dynamics of the 1918â€“19 pandemic influenza in Florence, Italy. Vaccine, 2011, 29, B27-B32.	3.8	7
118	The interplay between individual social behavior and clinical symptoms in small clustered groups. BMC Infectious Diseases, 2017, 17, 521.	2.9	7
119	Investigating the relationship between interventions, contact patterns, and SARS-CoV-2Âtransmissibility. Epidemics, 2022, 40, 100601.	3.0	7
120	Spatiotemporal dynamics of viral hepatitis A in Italy. Theoretical Population Biology, 2011, 79, 1-11.	1.1	6
121	Individualâ€™s daily behaviour and intergenerational mixing in different social contexts of Kenya. Scientific Reports, 2021, 11, 21589.	3.3	6
122	Risk of Symptomatic Infection During a Second Coronavirus Disease 2019 Wave in Severe Acute Respiratory Syndrome Coronavirus 2â€“Seropositive Individuals. Clinical Infectious Diseases, 2022, 74, 893-896.	5.8	5
123	Proteome Profiling without Selection Bias. , 2006, , .		4
124	Highlighting Hard Patterns via AdaBoost Weights Evolution. Lecture Notes in Computer Science, 2002, , 72-80.	1.3	4
125	A Combinatorial Model of Malware Diffusion via Bluetooth Connections. PLoS ONE, 2013, 8, e59468.	2.5	4
126	Navigating Concepts in the Human Mind Unravels the Latent Geometry of Its Semantic Space. Complexity, 2021, 2021, 1-13.	1.6	4

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127	Speaker Normalization and Model Selection of Combined Neural Networks. Connection Science, 1997, 9, 31-50.	3.0	3
128	Assessing the risk of autochthonous yellow fever transmission in Lazio, central Italy. PLoS Neglected Tropical Diseases, 2019, 13, e0006970.	3.0	3
129	Uncoordinated Human Responses During Epidemic Outbreaks. , 2013, , 79-91.		3
130	Early prediction of SARS-CoV-2 reproductive number from environmental, atmospheric and mobility data: A supervised machine learning approach. International Journal of Medical Informatics, 2022, 162, 104755.	3.3	3
131	Strategies for containing an influenza pandemic: the case of Italy. , 2006, , .		1
132	Effects of clustered transmission on epidemic growth Comment on â€œMathematical models to characterize early epidemic growth: A reviewâ€•by Gerardo Chowell et al.. Physics of Life Reviews, 2016, 18, 112-113.	2.8	1
133	Estimating measles transmission potential in Italy over the period 2010-2011. Annali Dell'Istituto Superiore Di Sanita, 2014, 50, 351-6.	0.4	1
134	Semisupervised Profiling of Gene Expressions and Clinical Data. Lecture Notes in Computer Science, 2006, , 284-289.	1.3	0
135	Behavioral Changes and Adaptation Induced by Epidemics. , 2015, , 155-175.		0