Peter M A Sloot

List of Publications by Year
in descending order

165 papers	3,677 citations	136740 32 h-index	189595 50 g-index
183 all docs	183 docs citations	183 times ranked	4326 citing authors

#	ARTICLE	IF	CITATIONS
1	Refining the causal loop diagram: A tutorial for maximizing the contribution of domain expertise in computational system dynamics modeling.. Psychological Methods, 2024, 29, 169-201.	2.7	14
2	Promises and pitfalls of computational modelling for insurgency conflicts. Journal of Defense Modeling and Simulation, 2023, 20, 333-350.	1.2	0
3	No robust relation between larger cities and depression. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	4
4	Dynamic importance of network nodes is poorly predicted by static structural features. Physica A: Statistical Mechanics and Its Applications, 2022, 593, 126889.	1.2	4
5	Behavioural thermal regulation explains pedestrian path choices in hot urban environments. Scientific Reports, 2022, 12, 2441.	1.6	13
6	The Future of Burn Care From a Complexity Science Perspective. Journal of Burn Care and Research, 2022, 43, 1312-1321.	0.2	6
7	State-space models reveal bursty movement behaviour of dance event visitors. EPJ Data Science, 2021, 10, .	1.5	2
8	A unifying model to estimate the effect of heat stress in the human innate immunity during physical activities. Scientific Reports, 2021, 11, 16688.	1.6	10
9	Advancing urban mental health research: from complexity science to actionable targets for intervention. Lancet Psychiatry,the, 2021, 8, 991-1000.	3.7	41
10	Inferring temporal dynamics from cross-sectional data using Langevin dynamics. Royal Society Open Science, 2021, 8, 211374.	1.1	1
11	Computational Science in the Interconnected World: Selected papers from 2019 International Conference on Computational Science. Journal of Computational Science, 2020, 47, 101222.	1.5	4
12	Convection and the Extracellular Matrix Dictate Inter- and Intra-Biofilm Quorum Sensing Communication in Environmental Systems. Environmental Science & Technology, 2020, 54, 6730-6740.	4.6	21
13	Social norms and obesity prevalence: From cohort to system dynamics models. Obesity Reviews, 2020, 21, e13044.	3.1	16
14	Questionnaire data analysis using information geometry. Scientific Reports, 2020, 10, 8633.	1.6	4
15	The impact of pace of life on pedestrian heat stress: A computational modelling approach.. Environmental Research, 2020, 186, 109397.	3.7	13
16	Detecting Critical Transitions in the Human Innate Immune System Post-cardiac Surgery. Lecture Notes in Computer Science, 2020, , 371-384.	1.0	1
17	Large-scale forecasting of information spreading. Journal of Big Data, 2020, 7, .	6.9	1
18	Medication management support in diabetes: a systematic assessment of diabetes self-management apps. BMC Medicine, 2019, 17, 127.	2.3	45

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19	Prediction and quantification of bacterial biofilm detachment using Glazier–Graner–Hogeweg method based model simulations. Journal of Theoretical Biology, 2019, 482, 109994.	0.8	0
20	Boolean network modeling of β-cell apoptosis and insulin resistance in type 2 diabetes mellitus. BMC Systems Biology, 2019, 13, 36.	3.0	12
21	A Smartphone App to Improve Medication Adherence in Patients With Type 2 Diabetes in Asia: Feasibility Randomized Controlled Trial. JMIR MHealth and UHealth, 2019, 7, e14914.	1.8	49
22	Spatial segregation, inequality, and opportunity bias in the slums of Bengaluru. Cities, 2018, 74, 269-276.	2.7	20
23	Survey-based socio-economic data from slums in Bangalore, India. Scientific Data, 2018, 5, 170200.	2.4	35
24	Supplemented Alkaline Phosphatase Supports the Immune Response in Patients Undergoing Cardiac Surgery: Clinical and Computational Evidence. Frontiers in Immunology, 2018, 9, 2342.	2.2	24
25	Information Processing Features Can Detect Behavioral Regimes of Dynamical Systems. Complexity, 2018, 2018, 1-16.	0.9	6
26	System dynamics of human body thermal regulation in outdoor environments. Building and Environment, 2018, 143, 760-769.	3.0	15
27	A study on the dynamics of temporary HIV treatment to assess the controversial outcomes of clinical trials: An in-silico approach. PLoS ONE, 2018, 13, e0200892.	1.1	8
28	Understanding Malaria Induced Red Blood Cell Deformation Using Data-Driven Lattice Boltzmann Simulations. Lecture Notes in Computer Science, 2018, , 392-403.	1.0	2
29	Categorical and Geographical Separation in Science. Scientific Reports, 2018, 8, 8253.	1.6	5
30	Parallel Performance Analysis of Bacterial Biofilm Simulation Models. Lecture Notes in Computer Science, 2018, , 496-505.	1.0	5
31	eHealth in the future of medications management: personalisation, monitoring and adherence. BMC Medicine, 2017, 15, 73.	2.3	113
32	Modelling the impact of household life cycle on slums in Bangalore. Computers, Environment and Urban Systems, 2017, 64, 275-287.	3.3	14
33	Anomaly Detection in Clinical Data of Patients Undergoing Heart Surgery. Procedia Computer Science, 2017, 108, 99-108.	1.2	10
34	Models of Pedestrian Adaptive Behaviour in Hot Outdoor Public Spaces. Procedia Computer Science, 2017, 108, 185-194.	1.2	17
35	Quantifying Synergistic Information Using Intermediate Stochastic Variables. Entropy, 2017, 19, 85.	1.1	30
36	Information geometric analysis of phase transitions in complex patterns: the case of the Gray-Scott reaction–diffusion model. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 043301.	0.9	10

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37	Reproducibility of Two Innate Immune System Models. Communications in Computer and Information Science, 2016, , 501-514.	0.4	1
38	Immune System Model Calibration by Genetic Algorithm. Procedia Computer Science, 2016, 101, 161-171.	1.2	8
39	Nonparametric estimation of Fisher information from real data. Physical Review E, 2016, 93, 023301.	0.8	4
40	The influence of memory on indoor environment exploration: A numerical study. Behavior Research Methods, 2016, 48, 621-639.	2.3	5
41	Young Researchers Advancing Computational Science: Perspectives of the Young Scientists Conference 2015. Procedia Computer Science, 2015, 66, 1-4.	1.2	4
42	Data-driven Modeling of Transportation Systems and Traffic Data Analysis During a Major Power Outage in the Netherlands. Procedia Computer Science, 2015, 66, 336-345.	1.2	12
43	Topological Characterization of Complex Systems: Using Persistent Entropy. Entropy, 2015, 17, 6872-6892.	1.1	44
44	Numerical prediction of the IJkDijk trial embankment failure. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2015, 168, 158-171.	0.9	7
45	Russian-Dutch double-degree Master's programme in computational science in the age of global education. Journal of Computational Science, 2015, 10, 288-298.	1.5	23
46	From data to disruption. Digital Investigation, 2015, 15, 39-45.	3.2	10
47	Simulating city-level airborne infectious diseases. Computers, Environment and Urban Systems, 2015, 51, 97-105.	3.3	23
48	Combining Data-Driven Methods with Finite Element Analysis for Flood Early Warning Systems. Procedia Computer Science, 2015, 51, 2347-2356.	1.2	11
49	Complex agent networks: An emerging approach for modeling complex systems. Applied Soft Computing Journal, 2015, 37, 311-321.	4.1	22
50	Time-Frequency Methods for Structural Health Monitoring. Sensors, 2014, 14, 5147-5173.	2.1	29
51	Topology dependent epidemic spreading velocity in weighted networks. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P12020.	0.9	5
52	Dutch-Russian double degree master's program curricula in computational science and high performance computing. , 2014, , .		5
53	Quantitative comparison between crowd models for evacuation planning and evaluation. European Physical Journal B, 2014, 87, 1.	0.6	24
54	A novel feature-based approach to extract drug–drug interactions from biomedical text. Bioinformatics, 2014, 30, 3365-3371.	1.8	69

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55	Inference of the Russian drug community from one of the largest social networks in the Russian Federation. Quality and Quantity, 2014, 48, 2739-2755.	2.0	11
56	The emergence of slums: A contemporary view on simulation models. Environmental Modelling and Software, 2014, 59, 76-90.	1.9	64
57	Double-degree Master's Program in Computational Science: Experiences of ITMO University and University of Amsterdam. Procedia Computer Science, 2014, 29, 1433-1445.	1.2	12
58	Short-Term Forecasting of Taiwanese Earthquakes Using a Universal Model of Fusion-Fission Processes. Scientific Reports, 2014, 4, 3624.	1.6	7
59	The Relative Ineffectiveness of Criminal Network Disruption. Scientific Reports, 2014, 4, 4238.	1.6	152
60	Distributed Simulation of City Inundation by Coupled Surface and Subsurface Porous Flow for Urban Flood Decision Support System. Procedia Computer Science, 2013, 18, 1046-1056.	1.2	23
61	Towards understanding the behavior of physical systems using information theory. European Physical Journal: Special Topics, 2013, 222, 1389-1401.	1.2	12
62	Inferring epidemiological parameters from phylogenetic information for the HIV-1 epidemic among MSM. European Physical Journal: Special Topics, 2013, 222, 1347-1358.	1.2	3
63	The importance of centralities in dark network value chains. European Physical Journal: Special Topics, 2013, 222, 1413-1439.	1.2	12
64	Combining social and genetic networks to study HIV transmission in mixing risk groups. European Physical Journal: Special Topics, 2013, 222, 1377-1387.	1.2	7
65	Advances in dynamic temporal networks: Understanding the temporal dynamics of complex adaptive networks. European Physical Journal: Special Topics, 2013, 222, 1287-1293.	1.2	8
66	Stochastic resonance for information flows on hierarchical networks. European Physical Journal: Special Topics, 2013, 222, 1335-1345.	1.2	7
67	An Approach for Real-time Levee Health Monitoring Using Signal Processing Methods. Procedia Computer Science, 2013, 18, 2357-2366.	1.2	14
68	A simulation framework to investigate in vitro viral infection dynamics. Journal of Computational Science, 2013, 4, 127-134.	1.5	13
69	Promoter Sequence Determines the Relationship between Expression Level and Noise. PLoS Biology, 2013, 11, e1001528.	2.6	143
70	RegaDB: community-driven data management and analysis for infectious diseases. Bioinformatics, 2013, 29, 1477-1480.	1.8	29
71	The diminishing role of hubs in dynamical processes on complex networks. Journal of the Royal Society Interface, 2013, 10, 20130568.	1.5	35
72	Are motorways rational from slime mould's point of view?. International Journal of Parallel, Emergent and Distributed Systems, 2013, 28, 230-248.	0.7	24

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73	BIO-DEVELOPMENT OF MOTORWAY NETWORK IN THE NETHERLANDS: A SLIME MOULD APPROACH. International Journal of Modeling, Simulation, and Scientific Computing, 2013, 16, 1250034.	0.9	18
74	Superinfection with drug-resistant HIV is rare and does not contribute substantially to therapy failure in a large European cohort. BMC Infectious Diseases, 2013, 13, 537.	1.3	8
75	Noise enhances information transfer in hierarchical networks. Scientific Reports, 2013, 3, 1223.	1.6	45
76	Information dissipation as an early-warning signal for the Lehman Brothers collapse in financial time series. Scientific Reports, 2013, 3, 1898.	1.6	54
77	Cost-Effectiveness of Pre-Exposure Prophylaxis (PrEP) in Preventing HIV-1 Infections in Rural Zambia: A Modeling Study. PLoS ONE, 2013, 8, e59549.	1.1	40
78	Topic Crawler for Social Networks Monitoring. Communications in Computer and Information Science, 2013, , 214-227.	0.4	8
79	Biorationality of motorways. , 2012, , 309-325.		1
80	Physarum in The Netherlands: responding to the flood. , 2012, , 213-234.		1
81	A robust approach to extract biomedical events from literature. Bioinformatics, 2012, 28, 2654-2661.	1.8	23
82	Information processing as a paradigm to model and simulate complex systems. Journal of Computational Science, 2012, 3, 247-249.	1.5	17
83	HIV Reservoirs and Immune Surveillance Evasion Cause the Failure of Structured Treatment Interruptions: A Computational Study. PLoS ONE, 2012, 7, e36108.	1.1	13
84	Combining Epidemiological and Genetic Networks Signifies the Importance of Early Treatment in HIV-1 Transmission. PLoS ONE, 2012, 7, e46156.	1.1	16
85	Editorial: communication optimization for scalable parallel system. Journal of Supercomputing, 2012, 60, 1-3.	2.4	0
86	Processing moldable tasks on the grid: Late job binding with lightweight user-level overlay. Future Generation Computer Systems, 2011, 27, 725-736.	4.9	20
87	Cellular automata models of tumour natural shrinkage. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 2283-2290.	1.2	9
88	A Simulation Framework to Investigate in vitro Viral Infection Dynamics. Procedia Computer Science, 2011, 4, 1798-1807.	1.2	2
89	A hybrid approach to extract protein–protein interactions. Bioinformatics, 2011, 27, 259-265.	1.8	80
90	SEECN: SIMULATING COMPLEX SYSTEMS USING DYNAMIC COMPLEX NETWORKS. International Journal for Multiscale Computational Engineering, 2011, 9, 201-214.	0.8	4

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91	Modeling HIV-1 intracellular replication: two simulation approaches. Procedia Computer Science, 2010, 1, 555-564.	1.2	10
92	Exploring individual user differences in the 2D/3D interaction with medical image data. Virtual Reality, 2010, 14, 105-118.	4.1	6
93	Extracting causal relations on HIV drug resistance from literature. BMC Bioinformatics, 2010, 11, 101.	1.2	34
94	Identifying potential survival strategies of HIV-1 through virus-host protein interaction networks. BMC Systems Biology, 2010, 4, 96.	3.0	31
95	The influence of mitoses rate on growth dynamics of a cellular automata model of tumour growth. Procedia Computer Science, 2010, 1, 971-978.	1.2	3
96	Individual-based simulation of sexual selection: A quantitative genetic approach. Procedia Computer Science, 2010, 1, 2003-2011.	1.2	0
97	Perspectives on grid computing. Future Generation Computer Systems, 2010, 26, 1104-1115.	4.9	71
98	Evaluation of 2D and 3D glove input applied to medical image analysis. International Journal of Human Computer Studies, 2010, 68, 355-369.	3.7	11
99	Comparison of HIV-1 Genotypic Resistance Test Interpretation Systems in Predicting Virological Outcomes Over Time. PLoS ONE, 2010, 5, e11505.	1.1	56
100	Antiretroviral Therapy Optimisation without Genotype Resistance Testing: A Perspective on Treatment History Based Models. PLoS ONE, 2010, 5, e13753.	1.1	21
101	Exploring cancer stem cell niche directed tumor growth. Cell Cycle, 2010, 9, 1472-1479.	1.3	32
102	Cancer Stem Cell Tumor Model Reveals Invasive Morphology and Increased Phenotypical Heterogeneity. Cancer Research, 2010, 70, 46-56.	0.4	180
103	Multi-scale modelling in computational biomedicine. Briefings in Bioinformatics, 2010, 11, 142-152.	3.2	71
104	Inference of Surface Membrane Factors of HIV-1 Infection through Functional Interaction Networks. PLoS ONE, 2010, 5, e13139.	1.1	7
105	Exploring 2D/3D Input Techniques for Medical Image Analysis. , 2009, , .		1
106	Grid Resource Allocation by Means of Option Contracts. IEEE Systems Journal, 2009, 3, 49-64.	2.9	12
107	Calcium homeostasis and signaling in yeast cells and cardiac myocytes. FEMS Yeast Research, 2009, 9, 1137-1147.	1.1	92
108	Simulations of time harmonic blood flow in the Mesenteric artery: comparing finite element and lattice Boltzmann methods. BioMedical Engineering OnLine, 2009, 8, 23.	1.3	29

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109	HIV decision support: from molecule to man. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2691-2703.	1.6	27
110	Interactive Control over a Programmable Computer Network Using a Multi-touch Surface. Lecture Notes in Computer Science, 2009, , 719-728.	1.0	1
111	Semantic Integration for Research Environments. , 2009, , 514-530.		8
112	Simulating Individual-Based Models of Epidemics in Hierarchical Networks. Lecture Notes in Computer Science, 2009, , 725-734.	1.0	1
113	A collaborative environment allowing clinical investigations on integrated biomedical databases. Studies in Health Technology and Informatics, 2009, 147, 51-61.	0.2	2
114	A Grid-based Virtual Reactor: Parallel performance and adaptive load balancing. Journal of Parallel and Distributed Computing, 2008, 68, 596-608.	2.7	18
115	A hybrid agent-based approach for modeling microbiological systems. Journal of Theoretical Biology, 2008, 255, 163-175.	0.8	34
116	Guest Editorial Introduction to the Special Section on BioGrid: Biomedical Computations on the Grid. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 133-137.	3.6	3
117	Stochastic simulation of HIV population dynamics through complex network modelling. International Journal of Computer Mathematics, 2008, 85, 1175-1187.	1.0	53
118	Dynamic Interactions in HLA Component Model for Multiscale Simulations. Lecture Notes in Computer Science, 2008, , 217-226.	1.0	1
119	Using HLA and Grid for Distributed Multiscale Simulations. Lecture Notes in Computer Science, 2008, , 780-787.	1.0	2
120	Hla Component Based Environment For Distributed Multiscale Simulations. , 2008, , 229-239.		1
121	Problem Solving Environment for Distributed Interactive Applications. , 2008, , 55-66.		4
122	Multi-science decision support for HIV drug resistance treatment. Studies in Health Technology and Informatics, 2008, 138, 188-98.	0.2	1
123	SIMULATING TIME HARMONIC FLOWS WITH THE REGULARIZED L-BGK METHOD. International Journal of Modern Physics C, 2007, 18, 661-666.	0.8	9
124	Simulating time harmonic flows with the lattice Boltzmann method. Physical Review E, 2007, 75, 036709.	0.8	8
125	Performance Modeling of 2D Cellular Automata on FPGA. , 2007, , .		12
126	Regular Paper: Interactive N-Body Simulations On the Grid: HLA Versus MPI. International Journal of High Performance Computing Applications, 2007, 21, 210-221.	2.4	5

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127	Towards Distributed Petascale Computing. Chapman & Hall/CRC Computational Science, 2007, , 147-164.	0.5	3
128	Grid Support for HLA-Based Collaborative Environment for Vascular Reconstruction. , 2006, , .		0
129	Problem-solving environments for biological morphogenesis. Computing in Science and Engineering, 2006, 8, 61-72.	1.2	6
130	Optimizing lattice Boltzmann simulations for unsteady flows. Computers and Fluids, 2006, 35, 227-240.	1.3	25
131	Mesoscopic simulations of systolic flow in the human abdominal aorta. Journal of Biomechanics, 2006, 39, 873-884.	0.9	77
132	Highly interactive distributed visualization. Future Generation Computer Systems, 2006, 22, 896-900.	4.9	3
133	Application of parallel computing to stochastic parameter estimation in environmental models. Computers and Geosciences, 2006, 32, 1139-1155.	2.0	62
134	From molecule to man: Decision support in individualized E-health. Computer, 2006, 39, 40-46.	1.2	50
135	A Conceptual Grid Architecture for Interactive Biomedical Applications. , 2006, , .		2
136	A Grid Service for Management of Multiple HLA Federate Processes. Lecture Notes in Computer Science, 2006, , 699-706.	1.0	2
137	Automatic Composition and Selection of Semantic Web Services. Lecture Notes in Computer Science, 2005, , 184-192.	1.0	18
138	Bringing combined interaction to a problem solving environment for vascular reconstruction. Future Generation Computer Systems, 2005, 21, 1167-1176.	4.9	7
139	A Grid-Based Hiv Expert System. Journal of Clinical Monitoring and Computing, 2005, 19, 263-278.	0.7	27
140	A Problem Solving Environment for Image-Based Computational Hemodynamics. Lecture Notes in Computer Science, 2005, , 287-294.	1.0	1
141	Morphogenesis of the branching reef coral Madracis mirabilis. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 127-133.	1.2	76
142	Toward Grid-Aware Time Warp. Simulation, 2005, 81, 293-306.	1.1	8
143	Equilibrium spherically curved two-dimensional Lennard-Jones systems. Journal of Chemical Physics, 2005, 123, 084105.	1.2	3
144	Grid-Based Simulation of Industrial Thin-Film Production. Simulation, 2005, 81, 77-85.	1.1	9

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145	Agent-Based Flow Control for HLA Components. Simulation, 2005, 81, 487-501.	1.1	18
146	A Framework for HLA-Based Interactive Simulations on the Grid. Simulation, 2005, 81, 67-76.	1.1	26
147	Agent technology and scientific workflow management in an e-science environment. , 2005, , .		5
148	Grid Resource Selection by Application Benchmarking for Computational Haemodynamics Applications. Lecture Notes in Computer Science, 2005, , 534-543.	1.0	11
149	Multi-modal Interaction in Biomedicine. Lecture Notes in Computer Science, 2005, , 184-201.	1.0	2
150	Agent Technology and Generic Workflow Management in an e-Science Environment. Lecture Notes in Computer Science, 2005, , 480-485.	1.0	2
151	Polyp oriented modelling of coral growth. Journal of Theoretical Biology, 2004, 228, 559-576.	0.8	43
152	An integrative approach to high-performance biomedical problem solving environments on the Grid. Parallel Computing, 2004, 30, 1037-1055.	1.3	15
153	Lattice BGK simulations of flow in a symmetric bifurcation. Future Generation Computer Systems, 2004, 20, 909-916.	4.9	29
154	Unsteady flow in a 2D elastic tube with the LBGK method. Future Generation Computer Systems, 2004, 20, 917-924.	4.9	15
155	Models of coral growth: spontaneous branching, compactification and the Laplacian growth assumption. Journal of Theoretical Biology, 2003, 224, 153-166.	0.8	51
156	Simulation and analysis of flow patterns around the scleractinian coral Madracis mirabilis (Duchassaing and Michelotti). Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 1551-1557.	1.8	37
157	Stochastic Modeling of Temporal Variability of HIV-1 Population. Lecture Notes in Computer Science, 2003, , 125-135.	1.0	2
158	Experimental Grid Access for Dynamic Discovery and Data Transfer in Distributed Interactive Simulation Systems. Lecture Notes in Computer Science, 2003, , 284-292.	1.0	6
159	The distributed ASCI Supercomputer project. Operating Systems Review (ACM), 2000, 34, 76-96.	1.5	80
160	Effect of Nutrient Diffusion and Flow on Coral Morphology. Physical Review Letters, 1996, 77, 2328-2331.	2.9	107
161	New Computational Techniques to Simulate Light Scattering from Arbitrary Particles. Particle and Particle Systems Characterization, 1994, 11, 189-193.	1.2	13
162	Osmotic response of lymphocytes measured by means of forward light scattering: Theoretical considerations. Cytometry, 1988, 9, 636-641.	1.8	60

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163	Scientific workflow management: between generality and applicability. , 0, , .		4
164	Grid-Based Interactive Decision Support in Biomedicine. , 0, , 225-246.		0
165	Efficient estimation of sensitivities for counterparty credit risk with the finite difference Monte Carlo method. Journal of Computational Finance, 0, , .	0.3	3