Peter M A Sloot

List of Publications by Year in descending order

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Version: 2024-02-01

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

#	Article	IF	CITATIONS
1	Cancer Stem Cell Tumor Model Reveals Invasive Morphology and Increased Phenotypical Heterogeneity. Cancer Research, 2010, 70, 46-56.	0.4	180
2	The Relative Ineffectiveness of Criminal Network Disruption. Scientific Reports, 2014, 4, 4238.	1.6	152
3	Promoter Sequence Determines the Relationship between Expression Level and Noise. PLoS Biology, 2013, 11, e1001528.	2.6	143
4	eHealth in the future of medications management: personalisation, monitoring and adherence. BMC Medicine, 2017, 15, 73.	2.3	113
5	Effect of Nutrient Diffusion and Flow on Coral Morphology. Physical Review Letters, 1996, 77, 2328-2331.	2.9	107
6	Calcium homeostasis and signaling in yeast cells and cardiac myocytes. FEMS Yeast Research, 2009, 9, 1137-1147.	1.1	92
7	The distributed ASCI Supercomputer project. Operating Systems Review (ACM), 2000, 34, 76-96.	1.5	80
8	A hybrid approach to extract protein–protein interactions. Bioinformatics, 2011, 27, 259-265.	1.8	80
9	Mesoscopic simulations of systolic flow in the human abdominal aorta. Journal of Biomechanics, 2006, 39, 873-884.	0.9	77
10	Morphogenesis of the branching reef coral Madracis mirabilis. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 127-133.	1.2	76
11	Perspectives on grid computing. Future Generation Computer Systems, 2010, 26, 1104-1115.	4.9	71
12	Multi-scale modelling in computational biomedicine. Briefings in Bioinformatics, 2010, 11, 142-152.	3.2	71
13	A novel feature-based approach to extract drug–drug interactions from biomedical text. Bioinformatics, 2014, 30, 3365-3371.	1.8	69
14	The emergence of slums: A contemporary view on simulation models. Environmental Modelling and Software, 2014, 59, 76-90.	1.9	64
15	Application of parallel computing to stochastic parameter estimation in environmental models. Computers and Geosciences, 2006, 32, 1139-1155.	2.0	62
16	Osmotic response of lymphocytes measured by means of forward light scattering: Theoretical considerations. Cytometry, 1988, 9, 636-641.	1.8	60
17	Comparison of HIV-1 Genotypic Resistance Test Interpretation Systems in Predicting Virological Outcomes Over Time. PLoS ONE, 2010, 5, e11505.	1.1	56
18	Information dissipation as an early-warning signal for the Lehman Brothers collapse in financial time series. Scientific Reports, 2013, 3, 1898.	1.6	54

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19	Stochastic simulation of HIV population dynamics through complex network modelling. International Journal of Computer Mathematics, 2008, 85, 1175-1187.	1.0	53
20	Models of coral growth: spontaneous branching, compactification and the Laplacian growth assumption. Journal of Theoretical Biology, 2003, 224, 153-166.	0.8	51
21	From molecule to man: Decision support in individualized E-health. Computer, 2006, 39, 40-46.	1.2	50
22	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
23	Noise enhances information transfer in hierarchical networks. Scientific Reports, 2013, 3, 1223.	1.6	45
24	Medication management support in diabetes: a systematic assessment of diabetes self-management apps. BMC Medicine, 2019, 17, 127.	2.3	45
25	Topological Characterization of Complex Systems: Using Persistent Entropy. Entropy, 2015, 17, 6872-6892.	1.1	44
26	Polyp oriented modelling of coral growth. Journal of Theoretical Biology, 2004, 228, 559-576.	0.8	43
27	Advancing urban mental health research: from complexity science to actionable targets for intervention. Lancet Psychiatry,the, 2021, 8, 991-1000.	3.7	41
28	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
29	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
30	The diminishing role of hubs in dynamical processes on complex networks. Journal of the Royal Society Interface, 2013, 10, 20130568.	1.5	35
31	Survey-based socio-economic data from slums in Bangalore, India. Scientific Data, 2018, 5, 170200.	2.4	35
32	A hybrid agent-based approach for modeling microbiological systems. Journal of Theoretical Biology, 2008, 255, 163-175.	0.8	34
33	Extracting causal relations on HIV drug resistance from literature. BMC Bioinformatics, 2010, 11, 101.	1.2	34
34	Exploring cancer stem cell niche directed tumor growth. Cell Cycle, 2010, 9, 1472-1479.	1.3	32
35	Identifying potential survival strategies of HIV-1 through virus-host protein interaction networks. BMC Systems Biology, 2010, 4, 96.	3.0	31
36	Quantifying Synergistic Information Using Intermediate Stochastic Variables. Entropy, 2017, 19, 85.	1.1	30

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37	Lattice BGK simulations of flow in a symmetric bifurcation. Future Generation Computer Systems, 2004, 20, 909-916.	4.9	29
38	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
39	RegaDB: community-driven data management and analysis for infectious diseases. Bioinformatics, 2013, 29, 1477-1480.	1.8	29
40	Time-Frequency Methods for Structural Health Monitoring. Sensors, 2014, 14, 5147-5173.	2.1	29
41	A Grid-Based Hiv Expert System. Journal of Clinical Monitoring and Computing, 2005, 19, 263-278.	0.7	27
42	HIV decision support: from molecule to man. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2691-2703.	1.6	27
43	A Framework for HLA-Based Interactive Simulations on the Grid. Simulation, 2005, 81, 67-76.	1.1	26
44	Optimizing lattice Boltzmann simulations for unsteady flows. Computers and Fluids, 2006, 35, 227-240.	1.3	25
45	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
46	Quantitative comparison between crowd models for evacuation planning and evaluation. European Physical Journal B, 2014, 87, 1.	0.6	24
47	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
48	A robust approach to extract biomedical events from literature. Bioinformatics, 2012, 28, 2654-2661.	1.8	23
49	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
50	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
51	Simulating city-level airborne infectious diseases. Computers, Environment and Urban Systems, 2015, 51, 97-105.	3. 3	23
52	Complex agent networks: An emerging approach for modeling complex systems. Applied Soft Computing Journal, 2015, 37, 311-321.	4.1	22
53	Antiretroviral Therapy Optimisation without Genotype Resistance Testing: A Perspective on Treatment History Based Models. PLoS ONE, 2010, 5, e13753.	1.1	21
54	Convection and the Extracellular Matrix Dictate Inter- and Intra-Biofilm Quorum Sensing Communication in Environmental Systems. Environmental Science & Environmental Science	4.6	21

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55	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
56	Spatial segregation, inequality, and opportunity bias in the slums of Bengaluru. Cities, 2018, 74, 269-276.	2.7	20
57	Automatic Composition and Selection of Semantic Web Services. Lecture Notes in Computer Science, 2005, , 184-192.	1.0	18
58	Agent-Based Flow Control for HLA Components. Simulation, 2005, 81, 487-501.	1.1	18
59	A Grid-based Virtual Reactor: Parallel performance and adaptive load balancing. Journal of Parallel and Distributed Computing, 2008, 68, 596-608.	2.7	18
60	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
61	Information processing as a paradigm to model and simulate complex systems. Journal of Computational Science, 2012, 3, 247-249.	1.5	17
62	Models of Pedestrian Adaptive Behaviour in Hot Outdoor Public Spaces. Procedia Computer Science, 2017, 108, 185-194.	1.2	17
63	Combining Epidemiological and Genetic Networks Signifies the Importance of Early Treatment in HIV-1 Transmission. PLoS ONE, 2012, 7, e46156.	1.1	16
64	Social norms and obesity prevalence: From cohort to system dynamics models. Obesity Reviews, 2020, 21, e13044.	3.1	16
65	An integrative approach to high-performance biomedical problem solving environments on the Grid. Parallel Computing, 2004, 30, 1037-1055.	1.3	15
66	Unsteady flow in a 2D elastic tube with the LBGK method. Future Generation Computer Systems, 2004, 20, 917-924.	4.9	15
67	System dynamics of human body thermal regulation in outdoor environments. Building and Environment, 2018, 143, 760-769.	3.0	15
68	An Approach for Real-time Levee Health Monitoring Using Signal Processing Methods. Procedia Computer Science, 2013, 18, 2357-2366.	1.2	14
69	Modelling the impact of household life cycle on slums in Bangalore. Computers, Environment and Urban Systems, 2017, 64, 275-287.	3.3	14
70	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
71	New Computational Techniques to Simulate Light Scattering from Arbitrary Particles. Particle and Particle Systems Characterization, 1994, 11, 189-193.	1.2	13
72	HIV Reservoirs and Immune Surveillance Evasion Cause the Failure of Structured Treatment Interruptions: A Computational Study. PLoS ONE, 2012, 7, e36108.	1.1	13

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73	A simulation framework to investigate in vitro viral infection dynamics. Journal of Computational Science, 2013, 4, 127-134.	1.5	13
74	The impact of pace of life on pedestrian heat stress: A computational modelling approach Environmental Research, 2020, 186, 109397.	3.7	13
75	Behavioural thermal regulation explains pedestrian path choices in hot urban environments. Scientific Reports, 2022, 12, 2441.	1.6	13
76	Performance Modeling of 2D Cellular Automata on FPGA., 2007,,.		12
77	Grid Resource Allocation by Means of Option Contracts. IEEE Systems Journal, 2009, 3, 49-64.	2.9	12
78	Towards understanding the behavior of physical systems using information theory. European Physical Journal: Special Topics, 2013, 222, 1389-1401.	1.2	12
79	The importance of centralities in dark network value chains. European Physical Journal: Special Topics, 2013, 222, 1413-1439.	1.2	12
80	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
81	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
82	Boolean network modeling of \hat{l}^2 -cell apoptosis and insulin resistance in type 2 diabetes mellitus. BMC Systems Biology, 2019, 13, 36.	3.0	12
83	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
84	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
85	Combining Data-Driven Methods with Finite Element Analysis for Flood Early Warning Systems. Procedia Computer Science, 2015, 51, 2347-2356.	1.2	11
86	Grid Resource Selection by Application Benchmarking for Computational Haemodynamics Applications. Lecture Notes in Computer Science, 2005, , 534-543.	1.0	11
87	Modeling HIV-1 intracellular replication: two simulation approaches. Procedia Computer Science, 2010, 1, 555-564.	1.2	10
88	From data to disruption. Digital Investigation, 2015, 15, 39-45.	3.2	10
89	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
90	Anomaly Detection in Clinical Data of Patients Undergoing Heart Surgery. Procedia Computer Science, 2017, 108, 99-108.	1.2	10

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91	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
92	Grid-Based Simulation of Industrial Thin-Film Production. Simulation, 2005, 81, 77-85.	1.1	9
93	SIMULATING TIME HARMONIC FLOWS WITH THE REGULARIZED L-BGK METHOD. International Journal of Modern Physics C, 2007, 18, 661-666.	0.8	9
94	Cellular automata models of tumour natural shrinkage. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 2283-2290.	1.2	9
95	Toward Grid-Aware Time Warp. Simulation, 2005, 81, 293-306.	1.1	8
96	Simulating time harmonic flows with the lattice Boltzmann method. Physical Review E, 2007, 75, 036709.	0.8	8
97	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
98	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
99	Immune System Model Calibration by Genetic Algorithm. Procedia Computer Science, 2016, 101, 161-171.	1.2	8
100	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
101	Topic Crawler for Social Networks Monitoring. Communications in Computer and Information Science, 2013, , 214-227.	0.4	8
102	Semantic Integration for Research Environments. , 2009, , 514-530.		8
103	Bringing combined interaction to a problem solving environment for vascular reconstruction. Future Generation Computer Systems, 2005, 21, 1167-1176.	4.9	7
104	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
105	Stochastic resonance for information flows on hierarchical networks. European Physical Journal: Special Topics, 2013, 222, 1335-1345.	1.2	7
106	Short-Term Forecasting of Taiwanese Earthquakes Using a Universal Model of Fusion-Fission Processes. Scientific Reports, 2014, 4, 3624.	1.6	7
107	Numerical prediction of the IJkDijk trial embankment failure. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2015, 168, 158-171.	0.9	7
108	Inference of Surface Membrane Factors of HIV-1 Infection through Functional Interaction Networks. PLoS ONE, 2010, 5, e13139.	1.1	7

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109	Problem-solving environments for biological morphogenesis. Computing in Science and Engineering, 2006, 8, 61-72.	1.2	6
110	Exploring individual user differences in the 2D/3D interaction with medical image data. Virtual Reality, 2010, 14, 105-118.	4.1	6
111	Information Processing Features Can Detect Behavioral Regimes of Dynamical Systems. Complexity, 2018, 2018, 1-16.	0.9	6
112	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
113	The Future of Burn Care From a Complexity Science Perspective. Journal of Burn Care and Research, 2022, 43, 1312-1321.	0.2	6
114	Agent technology and scientific workflow management in an e-science environment., 2005,,.		5
115	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
116	Topology dependent epidemic spreading velocity in weighted networks. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P12020.	0.9	5
117	Dutch-Russian double degree master's program curricula in computational science and high performance computing. , 2014, , .		5
118	The influence of memory on indoor environment exploration: A numerical study. Behavior Research Methods, 2016, 48, 621-639.	2.3	5
119	Categorical and Geographical Separation in Science. Scientific Reports, 2018, 8, 8253.	1.6	5
120	Parallel Performance Analysis of Bacterial Biofilm Simulation Models. Lecture Notes in Computer Science, 2018, , 496-505.	1.0	5
121	Scientific workflow management: between generality and applicability. , 0, , .		4
122	Young Researchers Advancing Computational Science: Perspectives of the Young Scientists Conference 2015. Procedia Computer Science, 2015, 66, 1-4.	1.2	4
123	Nonparametric estimation of Fisher information from real data. Physical Review E, 2016, 93, 023301.	0.8	4
124	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
125	Questionnaire data analysis using information geometry. Scientific Reports, 2020, 10, 8633.	1.6	4
126	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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127	Problem Solving Environment for Distributed Interactive Applications. , 2008, , 55-66.		4
128	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
129	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
130	Equilibrium spherically curved two-dimensional Lennard-Jones systems. Journal of Chemical Physics, 2005, 123, 084105.	1.2	3
131	Highly interactive distributed visualization. Future Generation Computer Systems, 2006, 22, 896-900.	4.9	3
132	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
133	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
134	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
135	Towards Distributed Petascale Computing. Chapman & Hall/CRC Computational Science, 2007, , 147-164.	0.5	3
136	Efficient estimation of sensitivities for counterparty credit risk with the finite difference Monte Carlo method. Journal of Computational Finance, 0, , .	0.3	3
137	A Conceptual Grid Architecture for Interactive Biomedical Applications. , 2006, , .		2
138	A Simulation Framework to Investigate in vitro Viral Infection Dynamics. Procedia Computer Science, 2011, 4, 1798-1807.	1.2	2
139	Understanding Malaria Induced Red Blood Cell Deformation Using Data-Driven Lattice Boltzmann Simulations. Lecture Notes in Computer Science, 2018, , 392-403.	1.0	2
140	State-space models reveal bursty movement behaviour of dance event visitors. EPJ Data Science, 2021, 10, .	1.5	2
141	Stochastic Modeling of Temporal Variability of HIV-1 Population. Lecture Notes in Computer Science, 2003, , 125-135.	1.0	2
142	Multi-modal Interaction in Biomedicine. Lecture Notes in Computer Science, 2005, , 184-201.	1.0	2
143	Agent Technology and Generic Workflow Management in an e-Science Environment. Lecture Notes in Computer Science, 2005, , 480-485.	1.0	2
144	A Grid Service for Management of Multiple HLA Federate Processes. Lecture Notes in Computer Science, 2006, , 699-706.	1.0	2

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145	Using HLA and Grid for Distributed Multiscale Simulations. Lecture Notes in Computer Science, 2008, , 780-787.	1.0	2
146	A collaborative environment allowing clinical investigations on integrated biomedical databases. Studies in Health Technology and Informatics, 2009, 147, 51-61.	0.2	2
147	A Problem Solving Environment for Image-Based Computational Hemodynamics. Lecture Notes in Computer Science, 2005, , 287-294.	1.0	1
148	Exploring 2D/3D Input Techniques for Medical Image Analysis. , 2009, , .		1
149	Biorationality of motorways. , 2012, , 309-325.		1
150	Physarum in The Netherlands: responding to the flood. , 2012, , 213-234.		1
151	Reproducibility of Two Innate Immune System Models. Communications in Computer and Information Science, 2016, , 501-514.	0.4	1
152	Detecting Critical Transitions in the Human Innate Immune System Post-cardiac Surgery. Lecture Notes in Computer Science, 2020, , 371-384.	1.0	1
153	Interactive Control over a Programmable Computer Network Using a Multi-touch Surface. Lecture Notes in Computer Science, 2009, , 719-728.	1.0	1
154	Dynamic Interactions in HLA Component Model for Multiscale Simulations. Lecture Notes in Computer Science, 2008, , 217-226.	1.0	1
155	Hla Component Based Environment For Distributed Multiscale Simulations. , 2008, , 229-239.		1
156	Simulating Individual-Based Models of Epidemics in Hierarchical Networks. Lecture Notes in Computer Science, 2009, , 725-734.	1.0	1
157	Large-scale forecasting of information spreading. Journal of Big Data, 2020, 7, .	6.9	1
158	Inferring temporal dynamics from cross-sectional data using Langevin dynamics. Royal Society Open Science, 2021, 8, 211374.	1.1	1
159	Multi-science decision support for HIV drug resistance treatment. Studies in Health Technology and Informatics, 2008, 138, 188-98.	0.2	1
160	Grid Support for HLA-Based Collaborative Environment for Vascular Reconstruction., 2006,,.		0
161	Grid-Based Interactive Decision Support in Biomedicine. , 0, , 225-246.		0
162	Individual-based simulation of sexual selection: A quantitative genetic approach. Procedia Computer Science, 2010, 1, 2003-2011.	1.2	0

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163	Editorial: communication optimization for scalable parallel system. Journal of Supercomputing, 2012, 60, 1-3.	2.4	O
164	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
165	Promises and pitfalls of computational modelling for insurgency conflicts. Journal of Defense Modeling and Simulation, 2023, 20, 333-350.	1.2	O