

# Stephen Jarvis

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2993226/publications.pdf>

Version: 2024-02-01

138  
papers

2,905  
citations

279487

23  
h-index

233125

45  
g-index

141  
all docs

141  
docs citations

141  
times ranked

2604  
citing authors

#	ARTICLE	IF	CITATIONS
1	SAFA: A Semi-Asynchronous Protocol for Fast Federated Learning With Low Overhead. IEEE Transactions on Computers, 2021, 70, 655-668.	2.4	142
2	Does nature make us happier? A spatial error model of greenspace types and mental wellbeing. Environment and Planning B: Urban Analytics and City Science, 2021, 48, 655-670.	1.0	6
3	Quantifying people's experience during flood events with implications for hazard risk communication. PLoS ONE, 2021, 16, e0244801.	1.1	1
4	Understanding spatial patterns in rape reporting delays. Royal Society Open Science, 2021, 8, 201795.	1.1	7
5	Higher-order particle representation for particle-in-cell simulations. Journal of Computational Physics, 2021, 435, 110255.	1.9	1
6	Graph hierarchy: a novel framework to analyse hierarchical structures in complex networks. Scientific Reports, 2021, 11, 13943.	1.6	9
7	Road and travel time cross-validation for urban modelling. International Journal of Geographical Information Science, 2020, 34, 98-118.	2.2	5
8	An unstructured CFD mini-application for the performance prediction of a production CFD code. Concurrency Computation Practice and Experience, 2020, 32, e5443.	1.4	12
9	Should I Stay Or Should I Go? The importance of electricity rate design for household defection from the power grid. Applied Energy, 2020, 262, 114494.	5.1	20
10	Reducing and linking spatio-temporal datasets with kD-STR. , 2020, , .		0
11	The Power-optimised Software Envelope. Transactions on Architecture and Code Optimization, 2019, 16, 1-27.	1.6	8
12	A Study of Data Continuity in Adult Social Care Services. British Journal of Social Work, 2019, 49, 762-786.	0.9	1
13	A spatial analysis of proximate greenspace and mental wellbeing in London. Applied Geography, 2019, 109, 102036.	1.7	56
14	S101. EFFECTIVENESS & IMPLEMENTATION OF COGNITIVE ENHANCEMENT THERAPY IN A REAL-WORLD COMMUNITY PROGRAM. Schizophrenia Bulletin, 2019, 45, S345-S345.	2.3	0
15	An algorithm for computing short-range forces in molecular dynamics simulations with non-uniform particle densities. Journal of Parallel and Distributed Computing, 2019, 130, 1-11.	2.7	5
16	Resilience or robustness: identifying topological vulnerabilities in rail networks. Royal Society Open Science, 2019, 6, 181301.	1.1	40
17	Balancing information governance obligations when accessing social care data for collaborative research. Records Management Journal, 2019, 29, 194-209.	0.4	4
18	A Tale of Two Cities: Multiplexed Banking Access in Birmingham and London. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	Embedding road networks and travel time into distance metrics for urban modelling. <i>International Journal of Geographical Information Science</i> , 2019, 33, 512-536.	2.2	9
20	2D-STR: Reducing Spatio-temporal Traffic Datasets by Partitioning and Modelling. , 2019, , .		1
21	Mining association rules for admission control and service differentiation in e-commerce applications. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i> , 2018, 8, e1241.	4.6	6
22	Performance Optimisation of Inertial Confinement Fusion Codes using Mini-applications. <i>International Journal of High Performance Computing Applications</i> , 2018, 32, 570-581.	2.4	1
23	To dig or not to dig? Place and perception in subsurface housing. <i>Proceedings of the Institution of Civil Engineers: Engineering Sustainability</i> , 2018, 171, 211-220.	0.4	3
24	BookLeaf: An Unstructured Hydrodynamics Mini-Application. , 2018, , .		4
25	Isolating the effect of cycling on local business environments in London. <i>PLoS ONE</i> , 2018, 13, e0209090.	1.1	4
26	Developing and Using a Geometric Multigrid, Unstructured Grid Mini-Application to Assess Many-Core Architectures. , 2018, , .		1
27	Performance of a Second Order Electrostatic Particle-in-Cell Algorithm on Modern Many-Core Architectures. <i>Electronic Notes in Theoretical Computer Science</i> , 2018, 340, 67-84.	0.9	4
28	Understanding Communication Patterns in HPCG. <i>Electronic Notes in Theoretical Computer Science</i> , 2018, 340, 55-65.	0.9	2
29	Community Structures, Interactions and Dynamics in London's Bicycle Sharing Network. , 2018, , .		9
30	Road distance and travel time for an improved house price Kriging predictor. <i>Geo-Spatial Information Science</i> , 2018, 21, 185-194.	2.4	12
31	MapRDD. , 2018, , .		1
32	The relationship between greenspace and the mental wellbeing of adults: A systematic review. <i>PLoS ONE</i> , 2018, 13, e0203000.	1.1	241
33	Big data analytics in social care provision. , 2018, , .		3
34	An Indoor Test Methodology for Solar-Powered Wireless Sensor Networks. <i>Transactions on Embedded Computing Systems</i> , 2017, 16, 1-25.	2.1	10
35	Goal-based composition of scalable hybrid analytics for heterogeneous architectures. <i>Journal of Parallel and Distributed Computing</i> , 2017, 108, 59-73.	2.7	3
36	Google Trends can improve surveillance of Type 2 diabetes. <i>Scientific Reports</i> , 2017, 7, 4993.	1.6	50

#	ARTICLE	IF	CITATIONS
37	A cross-sectional analysis of green space prevalence and mental wellbeing in England. BMC Public Health, 2017, 17, 460.	1.2	44
38	An Efficient Task-based All-Reduce for Machine Learning Applications. , 2017, , .		3
39	Achieving Performance Portability for a Heat Conduction Solver Mini-Application on Modern Multi-core Systems. , 2017, , .		14
40	Predicting floods with Flickr tags. PLoS ONE, 2017, 12, e0172870.	1.1	37
41	How do eyewitness social media reports reflect socio-economic effects of natural hazards?. Lecture Notes in Computer Science, 2017, , 221-229.	1.0	0
42	Replicating HPC I/O Workloads with Proxy Applications. , 2016, , .		5
43	Spatially-Intensive Decision Tree Prediction of Traffic Flow across the Entire UK Road Network. , 2016, , .		9
44	Optimisation of a Molecular Dynamics Simulation of Chromosome Condensation. , 2016, , .		0
45	Heuristic solutions to the target identifiability problem in directional sensor networks. Journal of Network and Computer Applications, 2016, 65, 84-102.	5.8	2
46	Understanding happiness in cities using Twitter: Jobs, children, and transport. , 2016, , .		20
47	Predicting the impact of urban flooding using open data. Royal Society Open Science, 2016, 3, 160013.	1.1	8
48	Developing Graph-Based Co-Scheduling Algorithms on Multicore Computers. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 1617-1632.	4.0	10
49	Offload Decision Models and the Price of Anarchy in Mobile Cloud Application Ecosystems. IEEE Access, 2016, , 1-1.	2.6	5
50	A spatio-temporal, Gaussian process regression, real-estate price predictor. , 2016, , .		8
51	POSE: A mathematical and visual modelling tool to guide energy aware code optimisation. , 2015, , .		1
52	Quantifying the Effects of Contention on Parallel File Systems. , 2015, , .		1
53	Goal-Based Analytic Composition for On-and Off-line Execution at Scale. , 2015, , .		0
54	Resident Block-Structured Adaptive Mesh Refinement on Thousands of Graphics Processing Units. , 2015, , .		17

#	ARTICLE	IF	CITATIONS
55	Mini-App Driven Optimisation of Inertial Confinement Fusion Codes. , 2015, , .		3
56	Guest Editorial: Ubiquitous Multimedia Systems and Applications. Multimedia Tools and Applications, 2015, 74, 2743-2744.	2.6	2
57	A distributed heuristic solution to the target identifiability problem in directional sensor networks. , 2015, , .		2
58	Quality over quantity: Target identifiability in directional sensor networks. , 2014, , .		2
59	On the design of an energy-harvesting noise-sensing WSN mote. Eurasip Journal on Wireless Communications and Networking, 2014, 2014, .	1.5	7
60	Towards unified secure on- and off-line analytics at scale. Parallel Computing, 2014, 40, 738-753.	1.3	4
61	Developing resource consolidation frameworks for moldable virtual machines in clouds. Future Generation Computer Systems, 2014, 32, 69-81.	4.9	61
62	Developing security-aware resource management strategies for workflows. Future Generation Computer Systems, 2014, 38, 61-68.	4.9	6
63	An investigation of the performance portability of OpenCL. Journal of Parallel and Distributed Computing, 2013, 73, 1439-1450.	2.7	41
64	Exploring SIMD for Molecular Dynamics, Using Intel&#x00AE; Xeon&#x00AE; Processors and Intel&#x00AE; Xeon Phi Coprocessors. , 2013, , .		97
65	Energy harvesting noise pollution sensing WSN mote: Survey of capabilities and limitations. , 2013, , .		3
66	Determination of maximum supportable receiver wakeup intervals in energy harvesting WSN nodes using a client-server setup. , 2013, , .		2
67	Self-determination of maximum supportable receiver wakeup intervals in Energy Harvesting WSN nodes. , 2013, , .		1
68	Developing communication-aware service placement frameworks in the Cloud economy. , 2013, , .		3
69	Model-Led Optimisation of a Geometric Multigrid Application. , 2013, , .		4
70	CRUCIBLE. , 2013, , .		1
71	Towards Automated Memory Model Generation Via Event Tracing. Computer Journal, 2013, 56, 156-174.	1.5	2
72	Parallel File System Analysis Through Application I/O Tracing. Computer Journal, 2013, 56, 141-155.	1.5	19

#	ARTICLE	IF	CITATIONS
73	Editorial Performance Modelling, Benchmarking and Simulation of High-Performance Computing Systems. Computer Journal, 2012, 55, 136-137.	1.5	1
74	On the Acceleration of Wavefront Applications using Distributed Many-Core Architectures. Computer Journal, 2012, 55, 138-153.	1.5	20
75	Towards the Automated Generation of Hard Disk Models through Physical Geometry Discovery. , 2012, , .		1
76	Accelerating Hydrocodes with OpenACC, OpenCL and CUDA. , 2012, , .		54
77	Developing Performance-Portable Molecular Dynamics Kernels in OpenCL. , 2012, , .		9
78	From Mobiles to Clouds: Developing Energy-Aware Offloading Strategies for Workflows. , 2012, , .		30
79	LDPLFS: Improving I/O Performance without Application Modification. , 2012, , .		9
80	Allocating Resources for Workflows Running under Authorization Control. , 2012, , .		4
81	Modeling and analyzing the impact of authorization on workflow executions. Future Generation Computer Systems, 2012, 28, 1177-1193.	4.9	14
82	MalikCredit - A New Credit Unit for P2P Computing. , 2012, , .		1
83	Predictive analysis of a hydrodynamics application on large-scale CMP clusters. Computer Science - Research and Development, 2011, 26, 175-185.	2.7	7
84	Managing dynamic enterprise and urgent workloads on clouds using layered queuing and historical performance models. Simulation Modelling Practice and Theory, 2011, 19, 1479-1495.	2.2	20
85	UK Performance Engineering Workshop 2010. Computer Journal, 2011, 54, 960-961.	1.5	0
86	Peer-to-peer aggregation techniques dissected. International Journal of Parallel, Emergent and Distributed Systems, 2010, 25, 51-71.	0.7	6
87	QoS-Aware Service Selection. Advanced Information and Knowledge Processing, 2010, , 225-251.	0.2	3
88	Performance Prediction and Evaluation. Lecture Notes in Computer Science, 2010, , 86-87.	1.0	0
89	Performance prediction for running workflows under role-based authorization mechanisms. , 2009, , .		7
90	Predictive analysis and optimisation of pipelined wavefront computations. , 2009, , .		4

#	ARTICLE	IF	CITATIONS
91	Performance prediction and procurement in practice: assessing the suitability of commodity cluster components for wavefront codes. IET Software, 2009, 3, 509.	1.5	7
92	Peer sampling with improved accuracy. Peer-to-Peer Networking and Applications, 2009, 2, 24-36.	2.6	3
93	Predictive Simulation of HPC Applications. , 2009, , .		2
94	Connectivity-Guaranteed and Obstacle-Adaptive Deployment Schemes for Mobile Sensor Networks. IEEE Transactions on Mobile Computing, 2009, 8, 836-848.	3.9	95
95	Performance prediction for a code with data-dependent runtimes. Concurrency Computation Practice and Experience, 2008, 20, 195-206.	1.4	2
96	Connectivity-Guaranteed and Obstacle-Adaptive Deployment Schemes for Mobile Sensor Networks. , 2008, , .		31
97	A System for Dynamic Server Allocation in Application Server Clusters. , 2008, , .		11
98	Reducing the run-time of MCMC programs by multithreading on SMP architectures. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	8
99	A Payment-Based Incentive and Service Differentiation Scheme for Peer-to-Peer Streaming Broadcast. IEEE Transactions on Parallel and Distributed Systems, 2008, 19, 940-953.	4.0	48
100	Dynamic Resource Allocation in Enterprise Systems. , 2008, , .		11
101	A plug-and-play model for evaluating wavefront computations on parallel architectures. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	27
102	Stochastic Analysis and Improvement of the Reliability of DHT-Based Multicast. , 2007, , .		15
103	Distributed Arbitrary Segment Trees: Providing Efficient Range Query Support over Public DHT Services. , 2007, , .		1
104	Improving the Fault Resilience of Overlay Multicast for Media Streaming. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 721-734.	4.0	31
105	Partition-based Profit Optimisation for Multi-class Requests in Clusters of Servers. , 2007, , .		3
106	A scheduling algorithm for revenue maximisation for cluster-based Internet services. , 2007, , .		3
107	Predictive performance modelling of parallel component compositions. Cluster Computing, 2007, 10, 155-166.	3.5	3
108	Predictive Performance Analysis of a Parallel Pipelined Synchronous Wavefront Application for Commodity Processor Cluster Systems. , 2006, , .		4

#	ARTICLE	IF	CITATIONS
109	Cerebral Palsy and Intrauterine Growth. Clinics in Perinatology, 2006, 33, 285-300.	0.8	46
110	Intrauterine Growth and Cerebral Palsy in Twins: A European Multicenter Study. Twin Research and Human Genetics, 2006, 9, 460-466.	0.3	20
111	Performance prediction and its use in parallel and distributed computing systems. Future Generation Computer Systems, 2006, 22, 745-754.	4.9	65
112	A Payment-based Incentive and Service Differentiation Mechanism for Peer-to-Peer Streaming Broadcast. IEEE International Workshop on Quality of Service, 2006, , .	0.0	35
113	Prediction of short-lived TCP transfer latency on bandwidth asymmetric links. Journal of Computer and System Sciences, 2006, 72, 1201-1210.	0.9	3
114	Allocating non-real-time and soft real-time jobs in multiclusters. IEEE Transactions on Parallel and Distributed Systems, 2006, 17, 99-112.	4.0	55
115	Performance Analysis and Improvement of Overlay Construction for Peer-to-Peer Live Streaming. Simulation, 2006, 82, 93-106.	1.1	8
116	Inter-Overlay Cooperation in High-Bandwidth Overlay Multicast. , 2006, , .		14
117	Intrauterine growth and cerebral palsy in twins: a European multicenter study. Twin Research and Human Genetics, 2006, 9, 460-6.	0.3	9
118	Grid load balancing using intelligent agents. Future Generation Computer Systems, 2005, 21, 135-149.	4.9	172
119	The impact of predictive inaccuracies on execution scheduling. Performance Evaluation, 2005, 60, 127-139.	0.9	10
120	Inter-species horizontal transfer resulting in core-genome and niche-adaptive variation within Helicobacter pylori. BMC Genomics, 2005, 6, 9.	1.2	27
121	Performance-based middleware for Grid computing. Concurrency Computation Practice and Experience, 2005, 17, 215-234.	1.4	16
122	An Investigation into the Application of Different Performance Prediction Methods to Distributed Enterprise Applications. Journal of Supercomputing, 2005, 34, 93-111.	2.4	17
123	Complete and variant forms of the "gonococcal genetic island"™ in Neisseria meningitidis. Microbiology (United Kingdom), 2005, 151, 4005-4013.	0.7	51
124	Performance-Aware Workflow Management for Grid Computing. Computer Journal, 2005, 48, 347-357.	1.5	49
125	Mapping DAG-based applications to multiclusters with background workload. , 2005, , .		25
126	Self-adaptive and self-optimising resource monitoring for dynamic grid environments. , 2004, , .		10



#	ARTICLE	IF	CITATIONS
127	Hybrid performance-based workload management for multiclusters and grids. IET Software, 2004, 151, 224.	1.0	8
128	Hybrid Performance-Oriented Scheduling of Moldable Jobs with QoS Demands in Multiclusters and Grids. Lecture Notes in Computer Science, 2004, , 217-224.	1.0	21
129	Performance-Aware Load Balancing for Multiclusters. Lecture Notes in Computer Science, 2004, , 635-647.	1.0	1
130	Local grid scheduling techniques using performance prediction. IEE Proceedings: Computers and Digital Techniques, 2003, 150, 87.	1.6	92
131	Cerebral palsy and intrauterine growth in single births: European collaborative study. Lancet, The, 2003, 362, 1106-1111.	6.3	297
132	Dynamic scheduling of parallel real-time jobs by modelling spare capabilities in heterogeneous clusters. , 2003, , .		7
133	GridFlow: workflow management for grid computing. , 2003, , .		157
134	Portable and architecture independent parallel performance tuning using BSP. Parallel Computing, 2002, 28, 1587-1609.	1.3	1
135	Dynamic Scheduling of Parallel Jobs with QoS Demands in Multiclusters and Grids. , 0, , .		20
136	Trusting agents for grid computing. , 0, , .		7
137	Performance Analysis and Improvement of Overlay Construction for Peer-to-Peer Live Media Streaming. , 0, , .		0
138	Improving the Fault Resilience of Overlay Multicast for Media Streaming. , 0, , .		29