

# Stephen Jarvis

## List of Publications by Year in descending order

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Version: 2024-02-01

138  
papers

2,905  
citations

279798

23  
h-index

233421

45  
g-index

141  
all docs

141  
docs citations

141  
times ranked

2604  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cerebral palsy and intrauterine growth in single births: European collaborative study. Lancet, The, 2003, 362, 1106-1111.	13.7	297
2	The relationship between greenspace and the mental wellbeing of adults: A systematic review. PLoS ONE, 2018, 13, e0203000.	2.5	241
3	Grid load balancing using intelligent agents. Future Generation Computer Systems, 2005, 21, 135-149.	7.5	172
4	GridFlow: workflow management for grid computing. , 2003, , .		157
5	SAFA: A Semi-Asynchronous Protocol for Fast Federated Learning With Low Overhead. IEEE Transactions on Computers, 2021, 70, 655-668.	3.4	142
6	Exploring SIMD for Molecular Dynamics, Using Intel&#x00AE; Xeon&#x00AE; Processors and Intel&#x00AE; Xeon Phi Coprocessors. , 2013, , .		97
7	Connectivity-Guaranteed and Obstacle-Adaptive Deployment Schemes for Mobile Sensor Networks. IEEE Transactions on Mobile Computing, 2009, 8, 836-848.	5.8	95
8	Local grid scheduling techniques using performance prediction. IEE Proceedings: Computers and Digital Techniques, 2003, 150, 87.	1.6	92
9	Performance prediction and its use in parallel and distributed computing systems. Future Generation Computer Systems, 2006, 22, 745-754.	7.5	65
10	Developing resource consolidation frameworks for moldable virtual machines in clouds. Future Generation Computer Systems, 2014, 32, 69-81.	7.5	61
11	A spatial analysis of proximate greenspace and mental wellbeing in London. Applied Geography, 2019, 109, 102036.	3.7	56
12	Allocating non-real-time and soft real-time jobs in multiclusters. IEEE Transactions on Parallel and Distributed Systems, 2006, 17, 99-112.	5.6	55
13	Accelerating Hydrocodes with OpenACC, OpenCL and CUDA. , 2012, , .		54
14	Complete and variant forms of the "gonococcal genetic island"™ in Neisseria meningitidis. Microbiology (United Kingdom), 2005, 151, 4005-4013.	1.8	51
15	Google Trends can improve surveillance of Type 2 diabetes. Scientific Reports, 2017, 7, 4993.	3.3	50
16	Performance-Aware Workflow Management for Grid Computing. Computer Journal, 2005, 48, 347-357.	2.4	49
17	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.	5.6	48
18	Cerebral Palsy and Intrauterine Growth. Clinics in Perinatology, 2006, 33, 285-300.	2.1	46

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19	A cross-sectional analysis of green space prevalence and mental wellbeing in England. BMC Public Health, 2017, 17, 460.	2.9	44
20	An investigation of the performance portability of OpenCL. Journal of Parallel and Distributed Computing, 2013, 73, 1439-1450.	4.1	41
21	Resilience or robustness: identifying topological vulnerabilities in rail networks. Royal Society Open Science, 2019, 6, 181301.	2.4	40
22	Predicting floods with Flickr tags. PLoS ONE, 2017, 12, e0172870.	2.5	37
23	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
24	Improving the Fault Resilience of Overlay Multicast for Media Streaming. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 721-734.	5.6	31
25	Connectivity-Guaranteed and Obstacle-Adaptive Deployment Schemes for Mobile Sensor Networks. , 2008, , .		31
26	From Mobiles to Clouds: Developing Energy-Aware Offloading Strategies for Workflows. , 2012, , .		30
27	Improving the Fault Resilience of Overlay Multicast for Media Streaming. , 0, , .		29
28	Inter-species horizontal transfer resulting in core-genome and niche-adaptive variation within Helicobacter pylori. BMC Genomics, 2005, 6, 9.	2.8	27
29	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
30	Mapping DAG-based applications to multiclustures with background workload. , 2005, , .		25
31	Hybrid Performance-Oriented Scheduling of Moldable Jobs with QoS Demands in Multiclustures and Grids. Lecture Notes in Computer Science, 2004, , 217-224.	1.3	21
32	Dynamic Scheduling of Parallel Jobs with QoS Demands in Multiclustures and Grids. , 0, , .		20
33	Intrauterine Growth and Cerebral Palsy in Twins: A European Multicenter Study. Twin Research and Human Genetics, 2006, 9, 460-466.	0.6	20
34	Managing dynamic enterprise and urgent workloads on clouds using layered queuing and historical performance models. Simulation Modelling Practice and Theory, 2011, 19, 1479-1495.	3.8	20
35	On the Acceleration of Wavefront Applications using Distributed Many-Core Architectures. Computer Journal, 2012, 55, 138-153.	2.4	20
36	Understanding happiness in cities using Twitter: Jobs, children, and transport. , 2016, , .		20

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37	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.	10.1	20
38	Parallel File System Analysis Through Application I/O Tracing. Computer Journal, 2013, 56, 141-155.	2.4	19
39	An Investigation into the Application of Different Performance Prediction Methods to Distributed Enterprise Applications. Journal of Supercomputing, 2005, 34, 93-111.	3.6	17
40	Resident Block-Structured Adaptive Mesh Refinement on Thousands of Graphics Processing Units. , 2015, , .		17
41	Performance-based middleware for Grid computing. Concurrency Computation Practice and Experience, 2005, 17, 215-234.	2.2	16
42	Stochastic Analysis and Improvement of the Reliability of DHT-Based Multicast. , 2007, , .		15
43	Inter-Overlay Cooperation in High-Bandwidth Overlay Multicast. , 2006, , .		14
44	Modeling and analyzing the impact of authorization on workflow executions. Future Generation Computer Systems, 2012, 28, 1177-1193.	7.5	14
45	Achieving Performance Portability for a Heat Conduction Solver Mini-Application on Modern Multi-core Systems. , 2017, , .		14
46	Road distance and travel time for an improved house price Kriging predictor. Geo-Spatial Information Science, 2018, 21, 185-194.	5.3	12
47	An unstructured CFD mini-application for the performance prediction of a production CFD code. Concurrency Computation Practice and Experience, 2020, 32, e5443.	2.2	12
48	A System for Dynamic Server Allocation in Application Server Clusters. , 2008, , .		11
49	Dynamic Resource Allocation in Enterprise Systems. , 2008, , .		11
50	Self-adaptive and self-optimising resource monitoring for dynamic grid environments. , 2004, , .		10
51	The impact of predictive inaccuracies on execution scheduling. Performance Evaluation, 2005, 60, 127-139.	1.2	10
52	Developing Graph-Based Co-Scheduling Algorithms on Multicore Computers. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 1617-1632.	5.6	10
53	An Indoor Test Methodology for Solar-Powered Wireless Sensor Networks. Transactions on Embedded Computing Systems, 2017, 16, 1-25.	2.9	10
54	Developing Performance-Portable Molecular Dynamics Kernels in OpenCL. , 2012, , .		9

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55	LDPLFS: Improving I/O Performance without Application Modification. , 2012, , .		9
56	Spatially-Intensive Decision Tree Prediction of Traffic Flow across the Entire UK Road Network. , 2016, , .		9
57	Community Structures, Interactions and Dynamics in London's Bicycle Sharing Network. , 2018, , .		9
58	Embedding road networks and travel time into distance metrics for urban modelling. International Journal of Geographical Information Science, 2019, 33, 512-536.	4.8	9
59	Graph hierarchy: a novel framework to analyse hierarchical structures in complex networks. Scientific Reports, 2021, 11, 13943.	3.3	9
60	Intrauterine Growth and Cerebral Palsy in Twins: A European Multicenter Study. Twin Research and Human Genetics, 2006, 9, 460-466.	0.6	9
61	Hybrid performance-based workload management for multiclustes and grids. IET Software, 2004, 151, 224.	1.0	8
62	Performance Analysis and Improvement of Overlay Construction for Peer-to-Peer Live Streaming. Simulation, 2006, 82, 93-106.	1.8	8
63	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
64	Predicting the impact of urban flooding using open data. Royal Society Open Science, 2016, 3, 160013.	2.4	8
65	The Power-optimised Software Envelope. Transactions on Architecture and Code Optimization, 2019, 16, 1-27.	2.0	8
66	A spatio-temporal, Gaussian process regression, real-estate price predictor. , 2016, , .		8
67	Dynamic scheduling of parallel real-time jobs by modelling spare capabilities in heterogeneous clusters. , 2003, , .		7
68	Trusting agents for grid computing. , 0, , .		7
69	Performance prediction for running workflows under role-based authorization mechanisms. , 2009, , .		7
70	Performance prediction and procurement in practice: assessing the suitability of commodity cluster components for wavefront codes. IET Software, 2009, 3, 509.	2.1	7
71	Predictive analysis of a hydrodynamics application on large-scale CMP clusters. Computer Science - Research and Development, 2011, 26, 175-185.	2.7	7
72	On the design of an energy-harvesting noise-sensing WSN mote. Eurasip Journal on Wireless Communications and Networking, 2014, 2014, .	2.4	7

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73	Understanding spatial patterns in rape reporting delays. Royal Society Open Science, 2021, 8, 201795.	2.4	7
74	Peer-to-peer aggregation techniques dissected. International Journal of Parallel, Emergent and Distributed Systems, 2010, 25, 51-71.	1.0	6
75	Developing security-aware resource management strategies for workflows. Future Generation Computer Systems, 2014, 38, 61-68.	7.5	6
76	Mining association rules for admission control and service differentiation in e-commerce applications. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2018, 8, e1241.	6.8	6
77	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.	2.0	6
78	Replicating HPC I/O Workloads with Proxy Applications. , 2016, , .		5
79	Offload Decision Models and the Price of Anarchy in Mobile Cloud Application Ecosystems. IEEE Access, 2016, , 1-1.	4.2	5
80	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.	4.1	5
81	Road and travel time cross-validation for urban modelling. International Journal of Geographical Information Science, 2020, 34, 98-118.	4.8	5
82	Predictive Performance Analysis of a Parallel Pipelined Synchronous Wavefront Application for Commodity Processor Cluster Systems. , 2006, , .		4
83	Predictive analysis and optimisation of pipelined wavefront computations. , 2009, , .		4
84	Allocating Resources for Workflows Running under Authorization Control. , 2012, , .		4
85	Model-Led Optimisation of a Geometric Multigrid Application. , 2013, , .		4
86	Towards unified secure on- and off-line analytics at scale. Parallel Computing, 2014, 40, 738-753.	2.1	4
87	BookLeaf: An Unstructured Hydrodynamics Mini-Application. , 2018, , .		4
88	Isolating the effect of cycling on local business environments in London. PLoS ONE, 2018, 13, e0209090.	2.5	4
89	Performance of a Second Order Electrostatic Particle-in-Cell Algorithm on Modern Many-Core Architectures. Electronic Notes in Theoretical Computer Science, 2018, 340, 67-84.	0.9	4
90	Balancing information governance obligations when accessing social care data for collaborative research. Records Management Journal, 2019, 29, 194-209.	0.6	4

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91	Prediction of short-lived TCP transfer latency on bandwidth asymmetric links. Journal of Computer and System Sciences, 2006, 72, 1201-1210.	1.2	3
92	Partition-based Profit Optimisation for Multi-class Requests in Clusters of Servers. , 2007, , .		3
93	A scheduling algorithm for revenue maximisation for cluster-based Internet services. , 2007, , .		3
94	Predictive performance modelling of parallel component compositions. Cluster Computing, 2007, 10, 155-166.	5.0	3
95	Peer sampling with improved accuracy. Peer-to-Peer Networking and Applications, 2009, 2, 24-36.	3.9	3
96	Energy harvesting noise pollution sensing WSN mote: Survey of capabilities and limitations. , 2013, , .		3
97	Developing communication-aware service placement frameworks in the Cloud economy. , 2013, , .		3
98	Mini-App Driven Optimisation of Inertial Confinement Fusion Codes. , 2015, , .		3
99	Goal-based composition of scalable hybrid analytics for heterogeneous architectures. Journal of Parallel and Distributed Computing, 2017, 108, 59-73.	4.1	3
100	An Efficient Task-based All-Reduce for Machine Learning Applications. , 2017, , .		3
101	To dig or not to dig? Place and perception in subsurface housing. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2018, 171, 211-220.	0.7	3
102	Big data analytics in social care provision. , 2018, , .		3
103	QoS-Aware Service Selection. Advanced Information and Knowledge Processing, 2010, , 225-251.	0.3	3
104	Performance prediction for a code with data-dependent runtimes. Concurrency Computation Practice and Experience, 2008, 20, 195-206.	2.2	2
105	Predictive Simulation of HPC Applications. , 2009, , .		2
106	Determination of maximum supportable receiver wakeup intervals in energy harvesting WSN nodes using a client-server setup. , 2013, , .		2
107	Towards Automated Memory Model Generation Via Event Tracing. Computer Journal, 2013, 56, 156-174.	2.4	2
108	Quality over quantity: Target identifiability in directional sensor networks. , 2014, , .		2

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109	Guest Editorial: Ubiquitous Multimedia Systems and Applications. Multimedia Tools and Applications, 2015, 74, 2743-2744.	3.9	2
110	A distributed heuristic solution to the target identifiability problem in directional sensor networks. , 2015, , .		2
111	Heuristic solutions to the target identifiability problem in directional sensor networks. Journal of Network and Computer Applications, 2016, 65, 84-102.	9.1	2
112	Understanding Communication Patterns in HPCG. Electronic Notes in Theoretical Computer Science, 2018, 340, 55-65.	0.9	2
113	Portable and architecture independent parallel performance tuning using BSP. Parallel Computing, 2002, 28, 1587-1609.	2.1	1
114	Distributed Arbitrary Segment Trees: Providing Efficient Range Query Support over Public DHT Services. , 2007, , .		1
115	Editorial Performance Modelling, Benchmarking and Simulation of High-Performance Computing Systems. Computer Journal, 2012, 55, 136-137.	2.4	1
116	Towards the Automated Generation of Hard Disk Models through Physical Geometry Discovery. , 2012, , .		1
117	MalikCredit - A New Credit Unit for P2P Computing. , 2012, , .		1
118	Self-determination of maximum supportable receiver wakeup intervals in Energy Harvesting WSN nodes. , 2013, , .		1
119	CRUCIBLE. , 2013, , .		1
120	POSE: A mathematical and visual modelling tool to guide energy aware code optimisation. , 2015, , .		1
121	Quantifying the Effects of Contention on Parallel File Systems. , 2015, , .		1
122	Performance Optimisation of Inertial Confinement Fusion Codes using Mini-applications. International Journal of High Performance Computing Applications, 2018, 32, 570-581.	3.7	1
123	Developing and Using a Geometric Multigrid, Unstructured Grid Mini-Application to Assess Many-Core Architectures. , 2018, , .		1
124	MapRDD. , 2018, , .		1
125	A Study of Data Continuity in Adult Social Care Services. British Journal of Social Work, 2019, 49, 762-786.	1.4	1
126	Quantifying people's experience during flood events with implications for hazard risk communication. PLoS ONE, 2021, 16, e0244801.	2.5	1



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127	Higher-order particle representation for particle-in-cell simulations. Journal of Computational Physics, 2021, 435, 110255.	3.8	1
128	Performance-Aware Load Balancing for Multiclusters. Lecture Notes in Computer Science, 2004, , 635-647.	1.3	1
129	2D-STR: Reducing Spatio-temporal Traffic Datasets by Partitioning and Modelling. , 2019, , .		1
130	Performance Analysis and Improvement of Overlay Construction for Peer-to-Peer Live Media Streaming. , 0, , .		0
131	UK Performance Engineering Workshop 2010. Computer Journal, 2011, 54, 960-961.	2.4	0
132	Goal-Based Analytic Composition for On-and Off-line Execution at Scale. , 2015, , .		0
133	Optimisation of a Molecular Dynamics Simulation of Chromosome Condensation. , 2016, , .		0
134	S101. EFFECTIVENESS & IMPLEMENTATION OF COGNITIVE ENHANCEMENT THERAPY IN A REAL-WORLD COMMUNITY PROGRAM. Schizophrenia Bulletin, 2019, 45, S345-S345.	4.3	0
135	A Tale of Two Cities: Multiplexed Banking Access in Birmingham and London. , 2019, , .		0
136	Performance Prediction and Evaluation. Lecture Notes in Computer Science, 2010, , 86-87.	1.3	0
137	How do eyewitness social media reports reflect socio-economic effects of natural hazards?. Lecture Notes in Computer Science, 2017, , 221-229.	1.3	0
138	Reducing and linking spatio-temporal datasets with kD-STR. , 2020, , .		0