

# Frederic Magoules

## List of Publications by Year in descending order

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156  
papers

4,063  
citations

257450

24  
h-index

138484

58  
g-index

174  
all docs

174  
docs citations

174  
times ranked

3300  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the prediction of building energy consumption. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 3586-3592.	16.4	1,451
2	Optimized Schwarz Methods without Overlap for the Helmholtz Equation. <i>SIAM Journal of Scientific Computing</i> , 2002, 24, 38-60.	2.8	275
3	Two-level domain decomposition methods with Lagrange multipliers for the fast iterative solution of acoustic scattering problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 184, 213-239.	6.6	109
4	Parallel Support Vector Machines Applied to the Prediction of Multiple Buildings Energy Consumption. <i>Journal of Algorithms and Computational Technology</i> , 2010, 4, 231-249.	0.7	100
5	Resource Pricing and Equilibrium Allocation Policy in Cloud Computing. , 2010, , .		95
6	An optimized Schwarz method with two-sided Robin transmission conditions for the Helmholtz equation. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 55, 163-175.	1.6	88
7	MSPminer: abundance-based reconstitution of microbial pan-genomes from shotgun metagenomic data. <i>Bioinformatics</i> , 2019, 35, 1544-1552.	4.1	82
8	Numerical investigations of stabilized finite element computations for acoustics. <i>Wave Motion</i> , 2004, 39, 339-349.	2.0	77
9	Development of an RDP neural network for building energy consumption fault detection and diagnosis. <i>Energy and Buildings</i> , 2013, 62, 133-138.	6.7	75
10	Feature Selection for Predicting Building Energy Consumption Based on Statistical Learning Method. <i>Journal of Algorithms and Computational Technology</i> , 2012, 6, 59-77.	0.7	69
11	A New Game Theoretical Resource Allocation Algorithm for Cloud Computing. <i>Lecture Notes in Computer Science</i> , 2010, , 321-330.	1.3	65
12	Lagrangian formulation of domain decomposition methods: A unified theory. <i>Applied Mathematical Modelling</i> , 2006, 30, 593-615.	4.2	63
13	Vapnik's learning theory applied to energy consumption forecasts in residential buildings. <i>International Journal of Computer Mathematics</i> , 2008, 85, 1563-1588.	1.8	60
14	Absorbing interface conditions for domain decomposition methods: A general presentation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 3880-3900.	6.6	54
15	Optimal Discrete Transmission Conditions for a Nonoverlapping Domain Decomposition Method for the Helmholtz Equation. <i>SIAM Journal of Scientific Computing</i> , 2004, 25, 1497-1515.	2.8	52
16	Algebraic approximation of Dirichlet-to-Neumann maps for the equations of linear elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 3742-3759.	6.6	41
17	Optimized Schwarz methods without overlap for highly heterogeneous media. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 1541-1553.	6.6	40
18	Impact of laparoscopic Roux-en-Y gastric bypass and sleeve gastrectomy on gut microbiota: a metagenomic comparative analysis. <i>Surgery for Obesity and Related Diseases</i> , 2020, 16, 852-862.	1.2	38

#	ARTICLE	IF	CITATIONS
19	Energy efficiency of VM consolidation in IaaS clouds. Journal of Supercomputing, 2017, 73, 782-809.	3.6	37
20	K Nearest Neighbour Joins for Big Data on MapReduce: A Theoretical and Experimental Analysis. IEEE Transactions on Knowledge and Data Engineering, 2016, 28, 2376-2392.	5.7	36
21	A Hadoop MapReduce Performance Prediction Method. , 2013, , .		35
22	Asynchronous optimized Schwarz methods with and without overlap. Numerische Mathematik, 2017, 137, 199-227.	1.9	32
23	Improved ad hoc interface conditions for Schwarz solution procedure tuned to highly heterogeneous media. Applied Mathematical Modelling, 2006, 30, 731-743.	4.2	31
24	ALGEBRAIC WAY TO DERIVE ABSORBING BOUNDARY CONDITIONS FOR THE HELMHOLTZ EQUATION. Journal of Computational Acoustics, 2005, 13, 433-454.	1.0	28
25	Algebraic Dirichlet-to-Neumann mapping for linear elasticity problems with extreme contrasts in the coefficients. Applied Mathematical Modelling, 2006, 30, 702-713.	4.2	25
26	SimMapReduce: A Simulator for Modeling MapReduce Framework. , 2011, , .		25
27	APPLICATION OF A DOMAIN DECOMPOSITION METHOD WITH LAGRANGE MULTIPLIERS TO ACOUSTIC PROBLEMS ARISING FROM THE AUTOMOTIVE INDUSTRY. Journal of Computational Acoustics, 2000, 08, 503-521.	1.0	24
28	Analysis of Patch Substructuring Methods. International Journal of Applied Mathematics and Computer Science, 2007, 17, 395-402.	1.5	24
29	Algebraic approach to absorbing boundary conditions for the Helmholtz equation. International Journal of Computer Mathematics, 2007, 84, 231-240.	1.8	24
30	Alinea: An Advanced Linear Algebra Library for Massively Parallel Computations on Graphics Processing Units. International Journal of High Performance Computing Applications, 2015, 29, 284-310.	3.7	24
31	Asynchronous iterative sub-structuring methods. Mathematics and Computers in Simulation, 2018, 145, 34-49.	4.4	24
32	JACK: an asynchronous communication kernel library for iterative algorithms. Journal of Supercomputing, 2017, 73, 3468-3487.	3.6	23
33	JACK2: An MPI-based communication library with non-blocking synchronization for asynchronous iterations. Advances in Engineering Software, 2018, 119, 116-133.	3.8	23
34	Fast sparse matrix-vector multiplication on graphics processing unit for finite element analysis. , 2012, , .		21
35	Iterative Methods for Sparse Linear Systems on Graphics Processing Unit. , 2012, , .		21
36	Studies of an infinite element method for acoustical radiation. Applied Mathematical Modelling, 2006, 30, 641-655.	4.2	20

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37	Optimal convergence properties of the FETI domain decomposition method. International Journal for Numerical Methods in Fluids, 2007, 55, 1-14.	1.6	20
38	Distributed Convergence Detection Based on Global Residual Error Under Asynchronous Iterations. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 819-829.	5.6	20
39	Analysis of a conjugated infinite element method for acoustic scattering. Computers and Structures, 2007, 85, 518-525.	4.4	19
40	Solutions for Processing K Nearest Neighbor Joins for Massive Data on MapReduce. , 2015, , .		18
41	Parallel Support Vector Machines on Multi-Core and Multiprocessor Systems. , 2011, , .		17
42	Non-overlapping additive Schwarz methods tuned to highly heterogeneous media. Comptes Rendus Mathematique, 2005, 341, 701-705.	0.3	16
43	Efficient preconditioning for image reconstruction with radial basis functions. Advances in Engineering Software, 2007, 38, 320-327.	3.8	15
44	Efficient implementation of Jacobi iterative method for large sparse linear systems on graphic processing units. Journal of Supercomputing, 2017, 73, 3411-3432.	3.6	15
45	Conjugate gradient method with graphics processing unit acceleration: CUDA vs OpenCL. Advances in Engineering Software, 2017, 111, 32-42.	3.8	15
46	NUMERICAL ANALYSIS OF A COUPLED FINITE-INFINITE ELEMENT METHOD FOR EXTERIOR HELMHOLTZ PROBLEMS. Journal of Computational Acoustics, 2006, 14, 21-43.	1.0	14
47	Feature selection for support vector regression in the application of building energy prediction. , 2011, , .		14
48	Detection of Concept Drift for Learning from Stream Data. , 2012, , .		14
49	A novel real-time scheduling algorithm and performance analysis of a MapReduce-based cloud. Journal of Supercomputing, 2014, 69, 739-765.	3.6	14
50	Auto-tuned Krylov methods on cluster of graphics processing unit. International Journal of Computer Mathematics, 2015, 92, 1222-1250.	1.8	14
51	Optimized Schwarz method without overlap for the gravitational potential equation on cluster of graphics processing unit. International Journal of Computer Mathematics, 2016, 93, 955-980.	1.8	14
52	Asynchronous Iterations of Parareal Algorithm for Option Pricing Models. Mathematics, 2018, 6, 45.	2.2	14
53	Accelerated Waveform Relaxation methods for power systems. , 2011, , .		12
54	Three-dimensional dispersion analysis and stabilized finite element methods for acoustics. Computer Methods in Applied Mechanics and Engineering, 2018, 335, 563-583.	6.6	12

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55	Service scheduling and rescheduling in an applications integration framework. <i>Advances in Engineering Software</i> , 2009, 40, 941-946.	3.8	11
56	Parallelizing multiple group-by query in share-nothing environment. , 2010, , .		11
57	Iterative Krylov Methods for Gravity Problems on Graphics Processing Unit. , 2013, , .		11
58	Schwarz Method with Two-Sided Transmission Conditions for the Gravity Equations on Graphics Processing Unit. , 2013, , .		11
59	Asynchronous Parareal Time Discretization For Partial Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2018, 40, C704-C725.	2.8	11
60	OPTIMAL CONVERGENCE OF NON-OVERLAPPING SCHWARZ METHODS FOR THE HELMHOLTZ EQUATION. <i>Journal of Computational Acoustics</i> , 2005, 13, 525-545.	1.0	10
61	A hybrid multigrid method for convectionâ€“diffusion problems. <i>Journal of Computational and Applied Mathematics</i> , 2014, 259, 711-719.	2.0	10
62	Support Vector Regression for Electricity Consumption Prediction in a Building in Japan. , 2016, , .		10
63	Green computing on graphics processing units. <i>Concurrency Computation Practice and Experience</i> , 2016, 28, 4305-4325.	2.2	10
64	Game and Balance Multicast Architecture Algorithms for Sensor Grid. <i>Sensors</i> , 2009, 9, 7177-7202.	3.8	9
65	Coupling the Parareal Algorithm with the Waveform Relaxation Method for the Solution of Differential Algebraic Equations. , 2011, , .		9
66	New parallel support vector regression for predicting building energy consumption. , 2011, , .		9
67	Natural Convection of Temperature-Sensitive Magnetic Fluids in Porous Media. <i>Advances in Applied Mathematics and Mechanics</i> , 2011, 3, 121-130.	1.2	9
68	Parallelizing Multiple Group-by queries using MapReduce: optimization and cost estimation. <i>Telecommunication Systems</i> , 2013, 52, 635-645.	2.5	8
69	Node Scaling Analysis for Power-Aware Real-Time Tasks Scheduling. <i>IEEE Transactions on Computers</i> , 2016, 65, 2510-2521.	3.4	8
70	Protocol-free asynchronous iterations termination. <i>Advances in Engineering Software</i> , 2020, 146, 102827.	3.8	8
71	On the existence of optimal shapes in architecture. <i>Applied Mathematical Modelling</i> , 2021, 94, 676-687.	4.2	8
72	A Two-Level Iterative Method for Image Reconstruction with Radial Basis Functions. <i>JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing</i> , 2005, 48, 149-158.	0.3	7

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73	A Beam-Tracing Domain Decomposition Method for Sound Holography in Church Acoustics. , 2013, , .		7
74	MUS: a novel deadline-constrained scheduling algorithm for Hadoop. International Journal of Computational Science and Engineering, 2015, 11, 360.	0.5	7
75	Superlinear convergence using block preconditioners for the real system formulation of complex Helmholtz equations. Journal of Computational and Applied Mathematics, 2018, 340, 424-431.	2.0	7
76	Coarse space construction based on Chebyshev polynomials for graphic analysis. Pollack Periodica, 2014, 9, 3-14.	0.4	6
77	Fast Iterative Solvers for Large Compressed-Sparse Row Linear Systems on Graphics Processing Unit. Pollack Periodica, 2015, 10, 3-18.	0.4	6
78	Visualization of large data sets by mixing Tcl and C++ interfaces to the VTK library. Computers and Structures, 2007, 85, 536-552.	4.4	5
79	Autonomic Data Management System in Grid Environment. Journal of Algorithms and Computational Technology, 2009, 3, 155-177.	0.7	5
80	Coupling Parareal and Waveform Relaxation methods for power systems. , 2011, , .		5
81	An Energy-Efficient VM Placement in Cloud Datacenter. , 2014, , .		5
82	Fast gradient methods with alignment for symmetric linear systems without using Cauchy step. Journal of Computational and Applied Mathematics, 2021, 381, 113033.	2.0	5
83	Natural Lighting and Medieval Glass â€œ Scientific Data Acquisition, Methodology and Physically Based Rendering. Lecture Notes in Computer Science, 2012, , 636-643.	1.3	5
84	Parallel Domain Decomposition Methods for Ray-Tracing on Multi-cores and Multi-processors. , 2011, , .		4
85	Speed-up the computing efficiency of waveform relaxation method for power system transient stability. , 2011, , .		4
86	A Partitioning Technique for a Waveform Relaxation Method Using Eigenvectors in the Transient Stability Analysis of Power Systems. IEEE Transactions on Power Systems, 2015, 30, 2867-2879.	6.5	4
87	Rayâ€™tracing domain decomposition methods for realâ€™time simulation on multiâ€™core and multiâ€™processor systems. Concurrency Computation Practice and Experience, 2016, 28, 4352-4364.	2.2	4
88	Optimal Absorption of Acoustic Waves by a Boundary. SIAM Journal on Control and Optimization, 2021, 59, 561-583.	2.1	4
89	Executing multiple group-by query in a MapReduce approach. , 2010, , .		3
90	Parallel domain decomposition methods for beam-tracing. Pollack Periodica, 2012, 7, 3-23.	0.4	3

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91	Iterative Krylov Methods for Acoustic Problems on Graphics Processing Unit. , 2014, , .		3
92	Energy Consumption Analysis on Graphics Processing Units. , 2014, , .		3
93	Spectral Domain Decomposition Method for Physically-Based Rendering of Photochromic/Electrochromic Glass Windows. , 2014, , .		3
94	Beam-Tracing Domain Decomposition Method for Urban Acoustic Pollution. , 2014, , .		3
95	GPU Accelerated Substructuring Methods for Sparse Linear Systems. , 2016, , .		3
96	A Novel Contactless Human Machine Interface Based on Machine Learning. , 2017, , .		3
97	Asynchronous Parareal Algorithm Applied to European Option Pricing. , 2017, , .		3
98	A New Cyclic Gradient Method Adapted to Large-Scale Linear Systems. , 2018, , .		3
99	Synchronous and asynchronous optimized Schwarz methods for one-way subdivision of bounded domains. Numerical Linear Algebra With Applications, 2020, 27, e2279.	1.6	3
100	Asynchronous substructuring method with alternating local and global iterations. Journal of Computational and Applied Mathematics, 2021, 393, 113531.	2.0	3
101	Convergence of Asynchronous Optimized Schwarz Methods in the Plane. Lecture Notes in Computational Science and Engineering, 2018, , 333-341.	0.3	3
102	Executing Multiple Group by Query Using MapReduce Approach: Implementation and Optimization. Lecture Notes in Computer Science, 2010, , 652-661.	1.3	3
103	High Performance Computing for Computational Mechanics. Computers and Structures, 2007, 85, 487-488.	4.4	2
104	Power Consumption Analysis of Parallel Algorithms on GPUs. , 2014, , .		2
105	Spectral Domain Decomposition Method for Natural Lighting and Medieval Glass Rendering. , 2014, , .		2
106	Parallel Sub-structuring Methods for Solving Sparse Linear Systems on a Cluster of GPUs. , 2014, , .		2
107	Fast and Green Computing with Graphics Processing Units for Solving Sparse Linear Systems. , 2014, , .		2
108	Preconditioners for Schwarz relaxation methods applied to differential algebraic equations. International Journal of Computer Mathematics, 2014, 91, 1775-1789.	1.8	2

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109	Speedup of parallel computing by parareal method in transient stability analysis of Japanese power system. , 2016, , .		2
110	Asynchronous Communications Library for the Parallel-in-Time Solution of Black-Scholes Equation. , 2017, , .		2
111	Interactive 3D Fluid Simulation: Steering the Simulation in Progress Using Lattice Boltzmann Method. , 2019, , .		2
112	Reducing the effect of global synchronization in delayed gradient methods for symmetric linear systems. Advances in Engineering Software, 2020, 147, 102837.	3.8	2
113	Parameter estimation in the Hermitian and skew-Hermitian splitting method using gradient iterations. Numerical Linear Algebra With Applications, 2020, 27, e2304.	1.6	2
114	Optimized Schwarz Method for Poisson's Equation in Rectangular Domains. Lecture Notes in Computational Science and Engineering, 2018, , 533-541.	0.3	2
115	A Probabilistic Estimation Method of Reactive Power Controlled by PCS using Measurement Data of Switchgears with Sensors. IEEJ Transactions on Power and Energy, 2016, 136, 410-423.	0.2	2
116	Asynchronous Multiplicative Coarse-Space Correction. SIAM Journal of Scientific Computing, 2022, 44, C237-C259.	2.8	2
117	Linear Optimal Hierarchical Multicast Tree Algorithms for P2P Database. , 2008, , .		1
118	MapReduce-Based Parallel Algorithms for Multidimensionnal Data Analysis. Journal of Algorithms and Computational Technology, 2012, 6, 325-350.	0.7	1
119	Embedded multi-core computing and applications. Journal of Supercomputing, 2017, 73, 3327-3332.	3.6	1
120	GPU Accelerated Contactless Human Machine Interface for Driving Car. , 2017, , .		1
121	DDSoR: A Dependency Aware Dynamic Service Replication Strategy for Efficient Execution of Service-Oriented Applications in the Cloud. , 2017, , .		1
122	Recent Developments in Iterative Methods for Reducing Synchronization. , 2019, , .		1
123	Asynchronous time-parallel method based on Laplace transform. International Journal of Computer Mathematics, 2021, 98, 179-194.	1.8	1
124	Asynchronous iterations of HSS method for non-Hermitian linear systems. International Journal of Computer Mathematics, 2022, 99, 1105-1123.	1.8	1
125	GRAVY: Towards Virtual File System for the Grid. , 2007, , 567-578.		1
126	Fast iterative solvers for large compressed-sparse row linear systems on graphics processing unit. Pollack Periodica, 2015, 10, 3-18.	0.4	1

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127	Future of grids resources management. Chapman & Hall/CRC Numerical Analysis and Scientific Computing, 2009, , 125-142.	0.0	1
128	An Aggregation Based Algebraic Multigrid Method Applied to Convection-Diffusion Operators. Springer Proceedings in Mathematics, 2011, , 597-604.	0.5	1
129	A Schur Complement Method for Compressible Navier-Stokes Equations. Lecture Notes in Computational Science and Engineering, 2013, , 543-550.	0.3	1
130	DOUBLE DIFFUSIVE FREE CONVECTION ALONG A VERTICAL SURFACE IN A DOUBLY STRATIFIED POROUS MEDIUM WITH SORET AND DUFOUR EFFECTS UNDER MHD FORCES. Journal of Porous Media, 2017, 20, 865-879.	1.9	1
131	A Framework for Dynamic Deployment of Scientific Applications Based on WSRF. , 2007, , 579-589.		1
132	High Performance Computing in Science and Engineering. Advances in Engineering Software, 2007, 38, 285-286.	3.8	0
133	Innovative algorithms in science and engineering. International Journal of Computer Mathematics, 2008, 85, iii-iv.	1.8	0
134	Bi-vector balance hierarchical multicast architecture algorithms for Data Grid. , 2009, , .		0
135	Supporting dynamic access to virtualized data resources via WSRF-based services. Advances in Engineering Software, 2009, 40, 947-955.	3.8	0
136	Color reproduction by means of a Compactly Supported Radial Basis Function space mapping. , 2012, , .		0
137	Coarse Space Correction for Graphic Analysis. , 2013, , .		0
138	Global initialization technique in waveform relaxation method for transient stability analysis of a Japanese power system. , 2014, , .		0
139	Accelerated Solution of Helmholtz Equation with Iterative Krylov Methods on GPU. , 2014, , .		0
140	Coupling and Simulation of Fluid-Structure Interaction Problems for Automotive Sun-Roof on Graphics Processing Unit. , 2014, , .		0
141	Innovative Algorithms for Extreme Scale Computing. International Journal of High Performance Computing Applications, 2015, 29, 247-248.	3.7	0
142	Galerkin Least Square Method for Time-Harmonic Acoustics in Royaumont Abbey. , 2016, , .		0
143	On the Stability and Performance of the Solution of Sparse Linear Systems by Partitioned Procedures. , 2016, , .		0
144	Multi-objective Optimization Design of Dispensing Valves in Semiconductor Packaging Systems. , 2016, , .		0

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145	Galerkin Gradient Least Square Method for Sound Holography in Royaumont Abbey. , 2016, , .		0
146	Embedded multicore computing and applications. Concurrency Computation Practice and Experience, 2016, 28, 4211-4214.	2.2	0
147	Spectral Domain Decomposition Method for Physically-Based Rendering of Royaumont Abbey. , 2016, , .		0
148	Automatic Matrix Partitioning Algorithm Underlying Iterative Substructuring Methods for Finite Element Analysis. , 2016, , .		0
149	A Probabilistic Estimation Method of Reactive Power Controlled by PCS using Measurement Data of Switchgears with Sensors. Electrical Engineering in Japan (English Translation of Denki Gakkai Tj ETQq1 1 0.784314.rgBT /Overlock 10 T	1.0	0
150	Convergence Detection of Asynchronous Iterations Based on Modified Recursive Doubling. , 2018, , .		0
151	Correction to "K Nearest Neighbour Joins for Big Data on MapReduce: A Theoretical and Experimental Analysis". IEEE Transactions on Knowledge and Data Engineering, 2018, 30, 1824-1824.	5.7	0
152	On Extensions of Limited Memory Steepest Descent Method. , 2019, , .		0
153	Using Asynchronous Simulation Approach for Interactive Simulation. , 2019, , .		0
154	426 ADVANCED DATA ANALYSIS APPLIED TO ENERGY EFFICIENCY IN DISTRICT HEATING(International) Tj ETQq0 0 0.rgBT /Overlock 10 T	0.9	0
155	Reliability Comparison of Schedulability Test in Ubiquitous Computing. Lecture Notes in Computer Science, 2011, , 550-562.	1.3	0
156	STRATIFICATION EFFECT ON FREE CONVECTIVE DARCY FOR CHHEIMER BOUNDARY LAYER FLOW UNDER MULTIPLE INTERACTING FORCES. Computational Thermal Sciences, 2018, 10, 47-65.	0.9	0