Craig C Douglas

List of Publications by Year
in descending order

46 papers	668 citations	759233 12 h-index	580821 25 g-index
47 all docs	47 docs citations	47 times ranked	461 citing authors

#	ARTICLE	IF	CITATIONS
1	Sharp Estimates for Multigrid Rates of Convergence with General Smoothing and Acceleration. SIAM Journal on Numerical Analysis, 1985, 22, 617-633.	2.3	117
2	A wildland fire model with data assimilation. Mathematics and Computers in Simulation, 2008, 79, 584-606.	4.4	111
3	GEMMW: A Portable Level 3 BLAS Winograd Variant of Strassen's Matrix-Matrix Multiply Algorithm. Journal of Computational Physics, 1994, 110, 1-10.	3.8	61
4	Multi-Grid Algorithms with Applications to Elliptic Boundary Value Problems. SIAM Journal on Numerical Analysis, 1984, 21, 236-254.	2.3	44
5	Sparse matrix multiplication package (SMMP). Advances in Computational Mathematics, 1993, 1, 127-137.	1.6	35
6	Detailed Chemistry Modeling of Laminar Diffusion Flames On Parallel Computers. International Journal of High Performance Computing Applications, 1995, 9, 167-186.	1.5	35
7	A Unified Convergence Theory for Abstract Multigrid or Multilevel Algorithms, Serial and Parallel. SIAM Journal on Numerical Analysis, 1993, 30, 136-158.	2.3	26
8	Constructive Interference in Parallel Algorithms. SIAM Journal on Numerical Analysis, 1988, 25, 376-398.	2.3	21
9	CACHING IN WITH MULTIGRID ALGORITHMS: PROBLEMS IN TWO DIMENSIONS. International Journal of Parallel, Emergent and Distributed Systems, 1996, 9, 195-204.	0.4	19
10	DDDAS Approaches to Wildland Fire Modeling and Contaminant Tracking. , 2006, , .		17
11	The soil moisture velocity equation. Journal of Advances in Modeling Earth Systems, 2017, 9, 1473-1487.	3.8	17
12	Using Symmetries and Antisymmetries to Analyze a Parallel Multigrid Algorithm: The Elliptic Boundary Value Problem Case. SIAM Journal on Numerical Analysis, 1989, 26, 1439-1461.	2.3	16
13	An Open Framework for Dynamic Big-data-driven Application Systems (DBDDAS) Development. Procedia Computer Science, 2014, 29, 1246-1255.	2.0	14
14	An efficient implementation for SSOR and incomplete factorization preconditionings. Applied Numerical Mathematics, 1985, 1, 489-492.	2.1	13
15	Integrated Sensing and Processing Acoustic Resonance Spectrometry (ISP-ARS) for Sample Classification. Journal of Pharmaceutical Innovation, 2007, 2, 125-134.	2.4	12
16	Nonnested multigrid methods for linear problems. Numerical Methods for Partial Differential Equations, 2001, 17, 313-331.	3.6	11
17	17. A Review of Numerous Parallel Multigrid Methods. , 1996, , 187-202.		10
18	Molecular Factor Computing for Predictive Spectroscopy. Pharmaceutical Research, 2007, 24, 1441-1449.	3.5	10

#	Article	IF	Citations
19	Fast Hybrid Solution of Algebraic Systems. SIAM Journal on Scientific and Statistical Computing, 1990, 11, 1073-1086.	1.5	8
20	A tupleware approach to domain decomposition methods. Applied Numerical Mathematics, 1991, 8, 353-373.	2.1	8
21	A New Application of Dynamic Data Driven System in the Talbot-Ogden Model for Groundwater Infiltration. Procedia Computer Science, 2012, 9, 1073-1080.	2.0	5
22	On Solving Ill Conditioned Linear Systems. Procedia Computer Science, 2016, 80, 941-950.	2.0	5
23	MULTIGRID SOLUTION OF FLAME SHEET PROBLEMS ON SERIAL AND PARALLEL COMPUTERSâ€”. International Journal of Parallel, Emergent and Distributed Systems, 1997, 10, 225-236.	0.4	4
24	An Introduction to a Porous Shape Memory Alloy Dynamic Data Driven Application System. Procedia Computer Science, 2012, 9, 1081-1089.	2.0	4
25	An analysis of infiltration with moisture content distribution in a twoâ€dimensional discretized water content domain. Hydrological Processes, 2015, 29, 1225-1237.	2.6	4
26	A spectral projection preconditioner for solving ill conditioned linear systems. Journal of Computational Science, 2017, 20, 177-186.	2.9	4
27	MGNet. ACM SIGNUM Newsletter, 1992, 27, 2-8.	0.2	4
28	Beyond massive parallelism: numerical computation using associative tables. Parallel Computing, 1990, 16, 1-25.	2.1	3
29	Adaptive nonâ€nested multigrid methods. Engineering Computations, 2002, 19, 158-176.	1.4	3
30	Maximizing Cache Memory Usage for Multigrid Algorithms for Applications of Fluid Flow in Porous Media. , 2000, , 124-137.		3
31	Advantages of Multiscale Detection of Defective Pills during Manufacturing. Lecture Notes in Computer Science, 2010, , 8-16.	1.3	3
32	ABSTRACT MULTI-GRID WITH APPLICATIONS TO ELLIPTIC BOUNDARY-VALUE PROBLEMS. , 1984, , 453-466.		3
33	Using Shape Memory Alloys: A Dynamic Data Driven Approach. Procedia Computer Science, 2013, 18, 1844-1850.	2.0	2
34	OpenDBDDAS Toolkit: Secure MapReduce and Hadoop-like Systems. Procedia Computer Science, 2015, 51, 1675-1684.	2.0	2
35	Performance and scalability analysis of a coupled dual porosity Stokes model implemented with FEniCS. Japan Journal of Industrial and Applied Mathematics, 2019, 36, 1039-1054.	0.9	2
36	SPECIAL SOLUTION STRATEGIES INSIDE A SPECTRAL ELEMENT OCEAN MODEL. Mathematical Models and Methods in Applied Sciences, 2003, 13, 309-322.	3.3	1

#	Article	IF	Citations
37	An Analysis Tool to Methodically Scan Enterprise Scale Email Systems: What's in Your Email System?. , 2017, , .		1
38	A Generalized Multigrid Theory in the Style of Standard Iterative Methods. , 1994, , 19-34.		1
39	The multilevel principle applied to sorting. BIT Numerical Mathematics, 1990, 30, 177-195.	2.0	0
40	Variants of matrix-matrix multiplication for Fortran-90. ACM SIGNUM Newsletter, 1994, 29, 4-6.	0.2	0
41	Improving predictions for water spills using DDDAS. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	0
42	Towards a real-time data driven wild land fire model. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	0
43	Computational Modeling of Large Wildfires: A Roadmap. , 2010, , .		0
44	A Glimpse on Environmental Probes. , 2012, , .		0
45	A finite element method perturbation expansion for a coupled structural-acoustic system: two dimensional case. Japan Journal of Industrial and Applied Mathematics, 2013, 30, 545-563.	0.9	0
46	Parallel ADI Smoothers for Multigrid. , 2013, , .		0