

# David M Gay

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10512819/publications.pdf>

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24  
papers

2,064  
citations

932766

10  
h-index

996533

15  
g-index

24  
all docs

24  
docs citations

24  
times ranked

1386  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Adaptive Nonlinear Least-Squares Algorithm. ACM Transactions on Mathematical Software, 1981, 7, 348-368.	1.6	750
2	A Modeling Language for Mathematical Programming. Management Science, 1990, 36, 519-554.	2.4	507
3	Algorithm 611: Subroutines for Unconstrained Minimization Using a Model/Trust-Region Approach. ACM Transactions on Mathematical Software, 1983, 9, 503-524.	1.6	294
4	Computing Optimal Locally Constrained Steps. SIAM Journal on Scientific and Statistical Computing, 1981, 2, 186-197.	1.5	227
5	Some Convergence Properties of Broyden's Method. SIAM Journal on Numerical Analysis, 1979, 16, 623-630.	1.1	76
6	Solving Interval Linear Equations. SIAM Journal on Numerical Analysis, 1982, 19, 858-870.	1.1	49
7	Expressing Complementarity Problems in an Algebraic Modeling Language and Communicating Them to Solvers. SIAM Journal on Optimization, 1999, 9, 991-1009.	1.2	29
8	The AMPL Modeling Language: An Aid to Formulating and Solving Optimization Problems. Springer Proceedings in Mathematics and Statistics, 2015, , 95-116.	0.1	21
9	SOLVING SYSTEMS OF NONLINEAR EQUATIONS BY BROYDEN'S METHOD WITH PROJECTED UPDATES. , 1978, , 245-281.		20
10	Expressing Special Structures in an Algebraic Modeling Language for Mathematical Programming. ORSA Journal on Computing, 1995, 7, 166-190.	1.7	18
11	Experience with a Primal Presolve Algorithm. , 1994, , 135-154.		16
12	Maximum Likelihood and Quasi-Likelihood for Nonlinear Exponential Family Regression Models. Journal of the American Statistical Association, 1988, 83, 990-998.	1.8	13
13	Extending an Algebraic Modeling Language to Support Constraint Programming. INFORMS Journal on Computing, 2002, 14, 322-344.	1.0	11
14	Perturbation Bounds for Nonlinear Equations. SIAM Journal on Numerical Analysis, 1981, 18, 654-663.	1.1	9
15	Computing Perturbation Bounds for Nonlinear Algebraic Equations. SIAM Journal on Numerical Analysis, 1983, 20, 638-651.	1.1	8
16	Optimization Algorithms for Hierarchical Problems with Application to Nanoporous Materials. SIAM Journal on Optimization, 2012, 22, 1285-1308.	1.2	4
17	Conveying Problem Structure from an Algebraic Modeling Language to Optimization Algorithms. Operations Research/ Computer Science Interfaces Series, 2000, , 75-89.	0.3	4
18	Probabilistic attack reconstruction and resource estimation in &#x201C;reload&#x201D; scenarios. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
19	USING SCALAR AND VECTOR MAJORIZING EQUATIONS TO BOUND SOLUTION SETS OF NONLINEAR ALGEBRAIC EQUATION SYSTEMS. , 1980, , 329-339.		2
20	Symbolic-Algebraic Computations in a Modeling Language for Mathematical Programming. , 2001, , 99-106.		2
21	Interval Least Squares â€” a Diagnostic Tool. , 1988, , 183-205.		2
22	Using Expression Graphs in Optimization Algorithms. The IMA Volumes in Mathematics and Its Applications, 2012, , 247-262.	0.5	0
23	Using Discrete and Continuous Models to Solve Nanoporous Flow Optimization Problems. Numerical Mathematics, 2015, 8, 149-167.	0.6	0
24	Revisiting Expression Representations for Nonlinear AMPL Models. Springer Proceedings in Mathematics and Statistics, 2018, , 99-118.	0.1	0