

# A Bibliography of Publications of David M. Gay

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## Abstract

This bibliography records publications of David M. Gay.

## Title word cross-reference

**10th** [Gri84]. **18th** [BS86]. **1978** [DS79].

**25th** [ACM98b].

**31** [Gay79a].

**528** [FHS78, GG99].

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**'98** [ACM98b].

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## References

ACM:1998:AWJ

[ACM98a] ACM, editor. *ACM 1998 Workshop on Java for High-Performance Network Computing, February 28 and March 1, 1998*. ACM Press, New York, NY 10036, USA, 1998. ISBN ??? LCCN ??? URL <http://www.cs.ucsb.edu/conferences/java98/program.html>. Possibly unpublished, except electronically.

ACM:1998:CRP

[ACM98b] ACM, editor. *Conference record of POPL '98: the 25th ACM SIGPLAN-SIGACT Symposium on Principles of Pro-*

- gramming Languages: papers presented at the Symposium, San Diego, California, 19–21 January 1998.* ACM Press, New York, NY 10036, USA, 1998. ISBN 0-89791-979-3. LCCN QA76.7 .A15 1998. URL <http://www.acm.org/pubs/contents/proceedings/plan/268946/index.html>. ACM order number: 549981. [AGN09]
- Aiken:1998:BI**
- [AG98] Alexander Aiken and David Gay. Barrier inference. In ACM [ACM98b], pages 342–354. ISBN 0-89791-979-3. LCCN QA76.7 .A15 1998. URL <http://www.acm.org:80/pubs/citations/proceedings/plan/268946/p342-aiken/>. ACM order number: 549981. [BBCG02]
- Anderson:2011:CNP**
- [AG11] Zachary Anderson and David Gay. Composable, nestable, pessimistic atomic statements. *ACM SIGPLAN Notices*, 46(10):865–884, October 2011. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). OOP-SLA '11 conference proceedings. [BBH<sup>+</sup>08]
- Anderson:2008:SCD**
- [AGEB08] Zachary Anderson, David Gay, Rob Ennals, and Eric Brewer. SharC: checking data sharing strategies for multithreaded C. *ACM SIGPLAN Notices*, 43(6):149–158, June 2008. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).
- Anderson:2009:LAC**
- Zachary R. Anderson, David Gay, and Mayur Naik. Lightweight annotations for controlling sharing in concurrent data structures. *ACM SIGPLAN Notices*, 44(6):98–109, June 2009. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).
- Begel:2002:AVA**
- Andrew Begel, Philip Buonadonna, David E. Culler, and David Gay. An analysis of VI Architecture primitives in support of parallel and distributed communication. *Concurrency and Computation: Practice and Experience*, 14(1):55–76, January 2002. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic). URL <http://www3.interscience.wiley.com/cgi-bin/abstract/91014115/START>; <http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=91014115&PLACEBO=IE.pdf>.
- Bischof:2008:AAD**
- Christian H. Bischof, H. Martin Bückner, Paul Hovland, Uwe Naumann, and Jean Utke, editors. *Advances in Automatic Differentiation*, volume 64 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN

- 1439-7358. LCCN QA304 .I58 2008. URL <http://link.springer.com/book/10.1007/978-3-540-68942-3>; <http://www.springerlink.com/content/978-3-540-68942-3>.
- [BGG<sup>+</sup>12] **Boggs:2012:OAH** [CCG<sup>+</sup>84] Paul T. Boggs, David M. Gay, Stewart K. Griffiths, Robert Michael Lewis, Kevin R. Long, Stephen Nash, and Robert H. Nilson. Optimization algorithms for hierarchical problems with application to nanoporous materials. *SIAM Journal on Optimization*, 22(4):1285–1308, 2012. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic).
- [BGW93] **Bunch:1993:ASM** David S. Bunch, David M. Gay, and Roy E. Welsch. Algorithm 717: Subroutines for maximum likelihood and quasi-likelihood estimation of parameters in nonlinear regression models. *ACM Trans. Math. Software*, 19(1):109–130, March 1993. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL <http://www.acm.org/pubs/citations/journals/toms/1993-19-1/p109-bunch/>. [DG96]
- [BS86] **Boardman:1986:CSS** Thomas J. Boardman and Irene M. Stefanski, editors. *Computer science and statistics: proceedings of the 18th Symposium on the Interface, Fort Collins, Colorado, March 1986*. American Statistical Association, Washington, DC, USA, 1986. ISBN 92-835-0689-8. LCCN QA 276.4 S95 1986.
- Cody:1984:PRW** W. J. Cody, J. T. Coonen, D. M. Gay, K. Hanson, D. Hough, W. Kahan, R. Karpinski, J. Palmer, R. N. Ris, and D. Stevenson. A proposed radix-and word-length-independent standard for floating-point arithmetic. *IEEE Micro*, 4(4):86–100, July/August 1984. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).
- Cody:1985:PRW** [CCG<sup>+</sup>85] W. J. Cody, J. T. Coonen, D. M. Gay, K. Hanson, D. Hough, W. Kahan, R. Karpinski, J. Palmer, F. N. Ris, and D. Stevenson. A proposed radix-and word-length-independent standard for floating-point arithmetic. *ACM SIGNUM Newsletter*, 20(1):37–51, January 1985. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).
- Darcy:1996:FMF** Joseph D. Darcy and David Gay. FLECKmarks: Measuring floating point performance using a Full IEEE Compliant Arithmetic Benchmark. Technical report, Department of Computer Science, University of California, Berkeley, Berkeley, CA, USA, December

1996. URL <http://www.cs.berkeley.edu/~darcy/Research/fleckmrk.pdf>.

**Dennis:1981:ANL**

[DGW81a] John E. Dennis, Jr., David M. Gay, and Roy E. Welsch. An adaptive nonlinear least-squares algorithm. *ACM Trans. Math. Software*, 7(3):348–368, September 1981. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

**Dennis:1981:ANE**

[DGW81b] John E. Dennis, Jr., David M. Gay, and Roy E. Welsch. Algorithm 573: NL2SOL—an adaptive nonlinear least-squares algorithm [E4]. *ACM Trans. Math. Software*, 7(3):369–383, September 1981. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See also [Gay83c].

**Duff:1979:SMP**

[DS79] Iain S. Duff and G. W. Stewart, editors. *Sparse Matrix. Proceedings 1978: Symposium held in the Hyatt Regency, Knoxville, Tennessee on November 2–3, 1978*. SIAM, Philadelphia, PA, USA, 1979. ISBN 0-89871-160-6. LCCN QA188 S9 1978. URL <http://www.gbv.de/dms/hbz/toc/ht000381636.pdf>.

**Ennals:2007:UFF**

[EG07] Rob Ennals and David Gay. User-friendly functional programming for Web mashups. *ACM SIGPLAN Notices*, 42(9):

223–234, September 2007. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

**Ferris:1998:ECP**

[FFG98] Michael C. Ferris, Robert Fourer, and David M. Gay. Expressing complementarity problems in an algebraic modeling language and communicating them to solvers. Technical report, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1998. URL <http://www.ampl.com/cm/cs/what/ampl/REFS/abstracts.html#compl>.

**Ferris:1999:ECP**

[FFG99] Michael C. Ferris, Robert Fourer, and David M. Gay. Expressing complementarity problems in an algebraic modeling language and communicating them to solvers. *SIAM Journal on Optimization*, 9(4):991–1009, September 1999. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic). Dedicated to John E. Dennis, Jr., on his 60th birthday.

**Fourer:1994:EPP**

[FG94] R. Fourer and D. M. Gay. Experience with a primal presolve algorithm. In Hager et al. [HHP94], pages 135–154. ISBN 0-7923-2798-5. LCCN QA402.5 .L355 1994. URL <http://cm.bell-labs.com/cm/cs/what/ampl/REFS/pripre.ps.gz>.

- Fourer:1995:ESS**
- [FG95] Robert Fourer and David M. Gay. Expressing special structures in an algebraic modeling language for mathematical programming. *ORSA Journal on Computing*, 7(2):166–190, Spring 1995. CODEN OJCOE3. ISSN 0899-1499. URL <http://www.ampl.com/cm/cs/what/ampl/REFS/abstracts.html#spestruc>.
- Fourer:2002:EAM**
- [FG02] Robert Fourer and David M. Gay. Extending an algebraic modeling language to support constraint programming. *INFORMS Journal on Computing*, 14(4):322–344, 2002. ISSN 1091-9856 (print), 1526-5528 (electronic). Special issue on the merging of mathematical programming and constraint programming.
- Fourer:1989:AMP**
- [FGK89] Robert Fourer, David M. Gay, and Brian W. Kernighan. AMPL: A mathematical programming language. Computing Science Technical Report 133, AT&T Bell Laboratories, Murray Hill, NJ, USA, June 1989. ii + 63 pp. Revision of January 1987 edition.
- Fourer:1990:MLM**
- [FGK90] R. Fourer, D. M. Gay, and B. W. Kernighan. A modeling language for mathematical programming. *Management Science*, 36(5):519–554, 1990. CODEN MSCIAM. ISSN 0025-1909 (print), 1526-5501 (electronic). URL <http://cm.bell-labs.com/cm/cs/what/ampl/REFS/amplmod.ps.gz>. (The URL is for the longer technical report cited in the *Management Science* paper.)
- Fourer:1993:AML**
- [FGK93] Robert Fourer, David M. Gay, and Brian W. Kernighan. *AMPL: A Modeling Language for Mathematical Programming*. The Scientific Press (now an imprint of Boyd & Fraser Publishing Co.), Danvers, MA, USA, 1993. ISBN 0-89426-232-7. xvi + 351 pp. LCCN QA 76.73 A26F68 1994.
- Fourer:1994:IAM**
- [FGK94] R. Fourer, D. M. Gay, and B. W. Kernighan. An introduction to the AMPL modeling language for mathematical programming. *Mathematech*, 1(1):49–56, 1994. ISSN 1354-4314.
- Fortune:1995:WDI**
- [FGK<sup>+</sup>95] Steven J. Fortune, David M. Gay, Brian W. Kernighan, Orlando Landron, Reinaldo A. Valenzuela, and Margaret H. Wright. WISE design of indoor wireless systems: Practical computation and optimization. *IEEE Computational Science & Engineering*, 2(1):58–68, Spring 1995. CODEN ISCEE4. ISSN 1070-9924 (print), 1558-190X (electronic). URL <http://www.computer.org/cse/cs1998/c1058abs.htm>. ■

- [FGMS90a] **Feldman:1990:FCCa**  
 S. I. Feldman, D. M. Gay, M. W. Maimone, and N. L. Schryer. A Fortran-to-C converter. Computing Science Technical Report No. 149, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1990. URL <ftp://ftp.netlib.com/netlib/f2c/f2c.ps.Z>. [Fox79]
- [FGMS90b] **Feldman:1990:FCCb**  
 S. I. Feldman, D. M. Gay, M. W. Maimone, and N. L. Schryer. A Fortran to C converter. *ACM Fortran Forum*, 9(2):21–22, October 1990. CODEN ????? ISSN 1061-7264 (print), 1931-1311 (electronic). [GA98]
- [FGMS91] **Feldman:1991:AFF**  
 S. I. Feldman, D. M. Gay, M. W. Maimone, and N. L. Schryer. Availability of `f2c` — a Fortran to C converter. *ACM Fortran Forum*, 10(2):14–15, July 1991. CODEN ????? ISSN 1061-7264 (print), 1931-1311 (electronic). [GA98]
- [FGMS95] **Feldman:1995:FCC**  
 S. I. Feldman, David M. Gay, Mark W. Maimone, and N. L. Schryer. A Fortran-to-C converter. Computing Science Technical Report 149, AT&T Bell Laboratories, Murray Hill, NJ, USA, March 22, 1995. i + 25 pp. Revision of edition of 18 May 1990. [GA01]
- [FHS78] **Fox:1978:AFP**  
 P. A. Fox, A. D. Hall, and N. L. Schryer. Algorithm 528: Framework for a portable library [Z]. *ACM Trans. Math. Software*, 4(2):177–188, June 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See remarks [Fox79, GG99].
- Fox:1979:RFP**  
 Phyllis Fox. Remark on “Algorithm 528: Framework for a portable library [Z]”. *ACM Trans. Math. Software*, 5(4):524, December 1979. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [FHS78].
- Gay:1998:MME**  
 David Gay and Alex Aiken. Memory management with explicit regions. *ACM SIGPLAN Notices*, 33(5):313–323, May 1998. CODEN SINODQ. ISBN 0-89791-987-4. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL <http://www.acm.org:80/pubs/citations/proceedings/pldi/277650/p313-gay/>.
- Gay:2001:LSR**  
 David Gay and Alex Aiken. Language support for regions. *ACM SIGPLAN Notices*, 36(5):70–80, May 2001. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).
- Gay:1974:MRS**  
 D. M. Gay. More remarks on Scolnik’s approach to linear pro-

- gramming. *SIGMAP Newsletter*, 17:38–49, November 1974. ISSN 0364-5509.
- Gay:1974:SPP**
- [Gay74b] D. M. Gay. On Scolnik’s proposed polynomial-time linear programming algorithm. *SIGMAP Newsletter*, 16:15–21, April 1974. ISSN 0364-5509.
- Gay:1975:BMS**
- [Gay75] David M. Gay. *Brown’s Method and Some Generalizations, with Applications to Minimization Problems*. Ph.D. dissertation, Department of Computer Science, Cornell University, Ithaca, NY, USA, January 1975. 3 + 196 pp. URL <http://search.proquest.com/docview/302774443?accountid=14677>.
- Gay:1976:IBM**
- [Gay76] D. M. Gay. Implementing Brown’s method. *SIAM Review*, 18(4):804, 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- Gay:1977:MSV**
- [Gay77] D. M. Gay. Modifying singular values: Existence of solutions to systems of nonlinear equations having a possibly singular Jacobian matrix. *Math. Comput.*, 31:962–973, 1977. CODEN MCM-PAF. ISSN 0025-5718 (print), 1088-6842 (electronic).
- Gay:1978:SCP**
- [Gay78a] D. M. Gay. Some convergence properties of Broyden method. *SIAM Review*, 20(3):624, 1978. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- Gay:1978:CSR**
- [Gay78b] David M. Gay. On combining the schemes of Reid and Saunders for sparse LP bases. In Duff and Stewart [DS79], pages 313–334. ISBN 0-89871-160-6. LCCN QA188 S9 1978. URL <http://www.gbv.de/dms/hbz/toc/ht000381636.pdf>.
- Gay:1979:CMS**
- [Gay79a] David M. Gay. Corrigenda: “Modifying singular values: existence of solutions to systems of nonlinear equations having a possibly singular Jacobian matrix” (math. comp. **31** (1977), no. 140, 962–973). *Math. Comput.*, 33(145):432–433, January 1979. CODEN MCM-PAF. ISSN 0025-5718 (print), 1088-6842 (electronic).
- Gay:1979:SCP**
- [Gay79b] David M. Gay. Some convergence properties of Broyden’s method. *SIAM Journal on Numerical Analysis*, 16(4):623–630, August 1979. CODEN SJ-NAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gay:1980:SRG**
- [Gay80a] D. M. Gay. On solving robust and generalized linear regression problems. In S. Inceri and G. Treccani, editors,

*Quaderni dell'Unione Matematica Italiana 17 Ottimizzazione non lineare e applicazioni*, pages 55–83. Pitagora Editrice, Via del legatore, 3, Bologna, Italy, 1980.

**Gay:1980:UUA**

[Gay80b] D. M. Gay. Using interval arithmetic and a scalar majorizing equation to compute perturbation bounds for solutions to systems of nonlinear algebraic equations. Center (rep), Center for Comp. Res. In Econ. and Manag. Sci., Mass. Inst. of Technology, Cambridge, Mass., 1980. Revised Version Published As: ‘Perturbation Bounds for Nonlinear Equations’ *SIAM J. Numer. Anal.* 18, 654–663, 1981.

**Gay:1980:USV**

[Gay80c] D. M. Gay. Using scalar and vector majorizing equations to bound solution sets of nonlinear algebraic equation systems. In Nickel [Nic80], pages 329–339. ISBN 0-12-518850-1. LCCN QA297.75 .I57 1980.

**Gay:1980:NBA**

[Gay80d] David Gay. Normal binomials over algebraic number fields. *Journal of Number Theory*, 12 (3):311–326, August 1980. CODEN JNUTA9. ISSN 0022-314X (print), 1096-1658 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0022314X80900232>. ■

**Gay:1981:CAV**

[Gay81a] D. M. Gay. Comparing algorithmic variations. *COAL Newsletter*, 6(6):10–24, 1981.

**Gay:1981:COL**

[Gay81b] D. M. Gay. Computing optimal locally constrained steps. *SIAM J. Scient. Stat. Comput.*, 2:186–197, 1981. CODEN SIJCD4. ISSN 0196-5204.

**Gay:1981:CPB**

[Gay81c] D. M. Gay. Computing perturbation bounds optimal to first order for nonlinear algebraic equations. Techn. Rep. TR-31, Center for Comp. Res. In Econ. and Manag. Sci., Mass. Inst. of Technology, Cambridge, Mass., 1981.

**Gay:1981:SIL**

[Gay81d] D. M. Gay. Solving interval linear equations. Techn. Rep. TR-24 (Revised # TR-24R), Center for Comp. Res. In Econ. and Manag. Sci., Mass. Inst. of Technology, Cambridge, Mass., 1981. Published In: *SIAM J. Numer. Anal.* 19, 858–870, 1982.

**Gay:1981:PBN**

[Gay81e] David M. Gay. Perturbation bounds for nonlinear equations. *SIAM Journal on Numerical Analysis*, 18(4):654–663, August 1981. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Gay82a] **Gay:1982:CTM**  
D. M. Gay. On convergence testing in model/trust region algorithms for unconstrained optimization. *Comp. Sci. Tech. Rep.* 104, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1982. 104.
- [Gay82b] **Gay:1982:SIL**  
David M. Gay. Solving interval linear equations. *SIAM Journal on Numerical Analysis*, 19(4):858–870, August 1982. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Gay83a] **Gay:1983:ASU**  
David M. Gay. Algorithm 611: Subroutines for unconstrained minimization using a model/trust-region approach. *ACM Trans. Math. Software*, 9(4):503–524, December 1983. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).
- [Gay83b] **Gay:1983:CPB**  
David M. Gay. Computing perturbation bounds for nonlinear algebraic equations. *SIAM Journal on Numerical Analysis*, 20(3):638–651, June 1983. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Gay83c] **Gay:1983:RNE**  
David M. Gay. Remark on “Algorithm 573: NL2SOL—an adaptive nonlinear least-squares algorithm”. *ACM Trans. Math. Software*, 9(1):139, March 1983. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [DGW81b].
- [Gay84] **Gay:1984:TRA**  
D. M. Gay. A trust-region approach to linearly constrained optimization. In Griffiths [Gri84], pages 72–105. ISBN 0-387-13344-5. LCCN QA3.L28 no.1066, QA 297 D915n 1983. Lecture Notes in Mathematics 1066.
- [Gay85a] **Gay:1985:EMD**  
D. M. Gay. Electronic mail distribution of linear programming test problems. *COAL Newsletter*, 13:10–12, 1985.
- [Gay85b] **Gay:1985:SPK**  
D. M. Gay. Sparse projections in Karmarkar’s linear programming algorithm, November 1985. Talk held at the ORSA/TIMS Joint National Meeting in Atlanta, GA, USA.
- [Gay87a] **Gay:1987:PKL**  
D. M. Gay. Pictures of Karmarkar’s linear programming algorithm. Computer Science Technical Report 136, AT&T Bell Laboratories, Murray Hill, NJ 07974, USA, 1987.
- [Gay87b] **Gay:1987:ULL**  
D. M. Gay. Using a large library on a small machine. In Wouk [Wou87], pages 80–91. ISBN 0-89871-210-6. LCCN QA76.5.W66 1985.

**Gay:1987:VKL**

- [Gay87c] D. M. Gay. A variant of Kar-markar's linear programming algorithm for problems in standard form. *Mathematical Programming*, 37:81–90, 1987. CODEN MHPGA4. ISSN 0025-5610. Errata in *Mathematical Programming*, 40:111, 1988.

**Gay:1988:ILS**

- [Gay88] D. M. Gay. Interval least squares — a diagnostic tool. In Moore [Moo88], pages 183–205. ISBN 0-12-505630-3. LCCN QA76.9.E94 R45 1988.

**Gay:1990:CRB**

- [Gay90a] David M. Gay. Correctly rounded binary—decimal and decimal—binary conversions. Numerical Analysis Manuscript 90-10, AT&T Bell Laboratories, Murray Hill, NJ, USA, November 30, 1990. 16 pp. URL <ftp://garbo.uwasa.fi/pc/doc-soft/fpbib118.zip>; <http://cm.bell-labs.com/cm/cs/doc/90/4-10.ps.gz>; <http://cm.bell-labs.com/cm/cs/what/ampl/REFS/rounding.ps.gz>; <http://www.ampl.com/ampl/REFS/rounding.ps.gz>; <http://www.netlib.org/fp/dtoa.c>; [http://www.netlib.org/fp/g\\_fmt.c](http://www.netlib.org/fp/g_fmt.c); <http://www.netlib.org/fp/gdtoa.tgz>; [http://www.netlib.org/fp/rnd\\_prod.s](http://www.netlib.org/fp/rnd_prod.s); <https://www.math.utah.edu/pub/tex/bib/fparith.bib>.

**Gay:1990:USS**

- [Gay90b] David M. Gay. Usage summary for selected optimization routines. Computing Science Technical Report 153, AT&T Bell Laboratories, Murray Hill, NJ, USA, October 16, 1990. i + 21 pp.

**Gay:1991:ADN**

- [Gay91a] D. M. Gay. Automatic differentiation of nonlinear AMPL models. In Griewank and Corliss [GC91], pages 61–73. ISBN 0-89871-284-X. LCCN QA304 .A8 1992. Proceedings of the first SIAM Workshop on Automatic Differentiation, held in Breckenridge, Colorado, January 6–8, 1991.

**Gay:1991:STC**

- [Gay91b] D. M. Gay. Stopping tests that compute optimal solutions for interior-point linear programming algorithms. In Gómez et al. [GHT91], pages 17–42. ISBN 0-89871-269-6. LCCN QA377 .M49 1989.

**Gay:1991:MMB**

- [Gay91c] David M. Gay. Massive memory buys little speed for complete, in-core sparse Cholesky factorizations on some scalar computers. *Linear Algebra and its Applications*, 152:291–314, 1991. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). Interior point methods for linear programming.

- Gay:1993:HYS**
- [Gay93] David M. Gay. Hooking your solver to AMPL. Numerical Analysis Manuscript No. 93-10, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1993. URL <http://cm.bell-labs.com/cm/cs/what/AMPL/REFS/ hooking.ps.gz>.
- Gay:1994:IDL**
- [Gay94] David E. Gay. Interface definition language conversions: Recursive types. *ACM SIGPLAN Notices*, 29(8):101–110, August 1994. CODEN SINDQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL <http://www.acm.org:80/pubs/citations/proceedings/plan/185084/p101-gay/>.
- Gay:1996:AFE**
- [Gay96a] David M. Gay. Automatically finding and exploiting partially separable structure in nonlinear programming problems. Technical report, AT&T Bell Laboratories, Murray Hill, NJ, USA, 1996. URL <http://cm.bell-labs.com/cm/cs/what/AMPL/REFS/psstruc.ps.gz>.
- Gay:1996:MAN**
- [Gay96b] David M. Gay. More AD of nonlinear AMPL models: Computing Hessian information and exploiting partial separability. In Martin Berz, Christian Bischof, George Corliss, and Andreas Griewank, editors, *Computational Differentiation : Techniques, Applications, and Tools*. SIAM, Philadelphia, PA, USA, 1996. URL <http://cm.bell-labs.com/cm/cs/what/AMPL/REFS/ad96.ps.gz>.
- Gay:2000:SAC**
- [Gay00] David M. Gay. Symbolic-algebraic computations in a modeling language for mathematical programming. Technical Report 00-3-02, Computing Sciences Research Center, Bell Laboratories, Murray Hill, NJ, USA, July 2000.
- Gay:2001:SAC**
- [Gay01] David M. Gay. Symbolic-algebraic computations in a modeling language for mathematical programming. In *Symbolic algebraic methods and verification methods (Dagstuhl, 1999)*, pages 99–106. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.
- Gay:2006:SDE**
- [Gay06] David M. Gay. Semiautomatic differentiation for efficient gradient computations. In *Automatic differentiation: applications, theory, and implementations*, volume 50 of *Lect. Notes Comput. Sci. Eng.*, pages 147–158. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006.

- Griewank:1991:ADA**
- [GC91] Andreas Griewank and George F. Corliss, editors. *Automatic Differentiation of Algorithms: Theory, Implementation, and Application*. SIAM, Philadelphia, PA, USA, 1991. ISBN 0-89871-284-X. LCCN QA304 .A8 1992. Proceedings of the first SIAM Workshop on Automatic Differentiation, held in Breckenridge, Colorado, January 6–8, 1991.
- Garey:1985:LL**
- [GG85] M. R. Garey and D. M. Gay. Letter from the AT & T Laboratories. *Mathematical Programming Society Committee on Algorithms (COAL) Newsletter*, December 1985.
- Gay:1995:DRN**
- [GG95] David Gay and Eric Grosse. `d1mach` revisited: no more uncommenting DATA statements. In IFIP Working Group 2.5 [IFI95], page ?? ISBN ??? LCCN ??? URL <http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/d1mach.html>. Full paper published in [GG99].
- Gay:1999:SAF**
- [GG99] David M. Gay and Eric Grosse. Self-adapting Fortran 77 machine constants: Comment on Algorithm 528. *ACM Trans. Math. Software*, 25(1):123–126, March 1999. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL <http://cm.bell-labs.com/who/ehg/mach/d1mach.ps>; <http://www.acm.org/pubs/citations/journals/toms/cgi-bin/TOMSbibget?Gay:1999:SAF>; <http://www.acm.org/pubs/citations/journals/toms/cgi-bin/TOMScitation?Fox:1978:AFP>; <http://www.acm.org/80/pubs/citations/journals/toms/1999-25-1/p123-gay/>. See [FHS78].
- Gassmann:2005:IME**
- [GG05] Horand I. Gassmann and David M. Gay. An integrated modeling environment for stochastic programming. In *Applications of stochastic programming*, volume 5 of *MPS/SIAM Ser. Optim.*, pages 159–175. SIAM, Philadelphia, PA, USA, 2005.
- Gay:2011:YSP**
- [GGNY11] David Gay, Joel Galenson, Mayur Naik, and Kathy Yelick. Yada: Straightforward parallel programming. *Parallel Computing*, 37(9):592–609, September 2011. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0167819111000184>.
- Gay:1992:ACO**
- [GHGSW92] D. M. Gay, T. Head-Gordon, F. H. Stillinger, and M. H. Wright. An application of constrained optimization in protein folding: The poly-L-alanine hypothesis. *Forefronts*, 8(2):4–6, 1992. ISSN 0889-4833.

- Gomez:1991:ANP**
- [GHT91] S. (Susana) Gómez, J. P. (Jean Pierre) Hennart, and R. A. (Richard A.) Tapia, editors. *Advances in numerical partial differential equations and optimization: proceedings of the fifth Mexico-United States Workshop*. SIAM, Philadelphia, PA, USA, 1991. ISBN 0-89871-269-6. LCCN QA377 .M49 1989.
- Gay:1991:TAS**
- [GK91] D. M. Gay and L. Kaufman. Tradeoffs in algorithms for separable nonlinear least squares. In R. Vichnevetsky and J. J. H. Miller, editors, *IMACS '91, Proceedings of the 13th World Congress on Computational and Applied Mathematics*, pages 157–158. Criterion Press, Dublin, Ireland, 1991.
- Gay:1986:KAA**
- [GKR86] D. M. Gay, N. K. Karmarkar, and K. G. Ramakrishnan. The Karmarkar algorithm: Adding wings to linear programming. *The AT&T Bell Laboratories Record*, pages 4–10, March 1986. ISSN 0749-8152.
- Gay:1991:IPM**
- [GKT91] D. M. Gay, M. Kojima, and R. A. Tapia. Interior point methods for linear programming. *Linear Algebra and its Applications*, 152(??):??, July 1991. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- Gay:2005:SDP**
- [GLC05] David Gay, Phil Levis, and David Culler. Software design patterns for TinyOS. *ACM SIGPLAN Notices*, 40(7):40–49, July 2005. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).
- Gay:2007:SDP**
- [GLC07] David Gay, Philip Levis, and David Culler. Software design patterns for TinyOS. *ACM Transactions on Embedded Computing Systems*, 6(4):22:1–22:??, September 2007. CODEN ????? ISSN 1539-9087 (print), 1558-3465 (electronic).
- Gay:2003:NLH**
- [GLvB<sup>+</sup>03] David Gay, Philip Levis, Robert von Behren, Matt Welsh, Eric Brewer, and David Culler. The *nesC* language: A holistic approach to networked embedded systems. *ACM SIGPLAN Notices*, 38(5):1–11, May 2003. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).
- Gay:1998:PDI**
- [GOW98a] David M. Gay, Michael L. Overton, and Margaret H. Wright. A primal-dual interior method for nonconvex nonlinear programming. In *Advances in nonlinear programming (Beijing, 1996)*, volume 14 of *Appl. Optim.*, pages 31–56. Kluwer Academic Publishers Group, Nor-

well, MA, USA, and Dordrecht, The Netherlands, 1998.

**Overton:1998:PDI**

- [GOW98b] David M. Gay, Michael L. Overton, and Margaret H. Wright. A primal-dual interior method for nonconvex nonlinear programming. In Y. Yuan, editor, *Advances in Nonlinear Programming*, pages 31–56. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1998.

**Griffiths:1984:NAP**

- [Gri84] D. F. Griffiths, editor. *Numerical analysis: Proceedings of the 10th Dundee biennial conference held at the University of Dundee, Scotland, June 28–July 1, 1983*, volume 1066 of *Lecture notes in mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. ISBN 0-387-13344-5. LCCN QA3.L28 no.1066, QA 297 D915n 1983.

**Gay:1978:SSN**

- [GS78] D. M. Gay and R. B. Schnabel. Solving systems of nonlinear equations by Broyden’s method with projected updates. In Mangasarian et al. [MMR78], pages 245–281. ISBN 0-12-486660-3. LCCN T57.8 .N67 1977.

**Gay:1986:MLQ**

- [GW86] D. M. Gay and R. E. Welsch. Maximum likelihood and quasi-likelihood for nonlinear expo-

ponential family models. In Boardman and Stefanski [BS86], pages 277–284. ISBN 92-835-0689-8. LCCN QA 276.4 S95 1986.

**Gay:1988:MLQ**

- [GW88] D. M. Gay and R. E. Welsch. Maximum likelihood and quasi-likelihood for nonlinear exponential family regression models. *J. Amer. Statist. Assoc.*, 83: 990–998, 1988. CODEN JST-NAL. ISSN 0162-1459 (print), 1537-274X (electronic).

**Head-Gordon:1992:PAU**

- [HGSWG92] T. Head-Gordon, F. H. Stillinger, M. H. Wright, and D. M. Gay. Poly(L-alanine) as a universal reference material for understanding protein energies and structures. *Proc. Natl. Acad. Sci. USA*, 89(23):11513–11517, December 1, 1992. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

**Hager:1994:LSO**

- [HHP94] W. W. (William W.) Hager, D. W. (Donald W.) Hearn, and P. M. (Panos M.) Pardalos, editors. *Large Scale Optimization: State of the Art*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1994. ISBN 0-7923-2798-5. xiv + 456 pp. LCCN QA402.5 .L355 1994.

**IFIP:1995:KWC**

- [IFI95] IFIP Working Group 2.5, editor. *Kyoto Workshop 1995:*

- Current Directions in Numerical Software and High Performance Computing, 19–20 October 1995, Kyoto, Japan.* ????, ????, 1995. ISBN ????. LCCN ????. URL <http://www.nsc.liu.se/~boein/ifip/kyoto/kyoto.html#reid>; <http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/>.
- [KHL<sup>+</sup>07] Kevin Klues, Vlado Handziski, Chenyang Lu, Adam Wolisz, David Culler, David Gay, and Philip Levis. Integrating concurrency control and energy management in device drivers. *Operating Systems Review*, 41(6): 251–264, December 2007. CODEN OSRED8. ISSN 0163-5980 (print), 1943-586X (electronic).
- [LBC<sup>+</sup>08] Philip Levis, Eric Brewer, David Culler, David Gay, Samuel Madden, Neil Patel, Joe Polastre, Scott Shenker, Robert Szewczyk, and Alec Woo. The emergence of a networking primitive in wireless sensor networks. *Communications of the ACM*, 51(7):99–106, July 2008. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [MGH<sup>+</sup>86] K. B. McAfee, Jr., D. M. Gay, R. S. Hozack, R. A. Laudise, G. Schwartz, and W. A. Sunder. Thermodynamic considerations in the synthesis and crystal growth of GaSb. *Crystal Growth*, 76:263–271, 1986. CODEN CRGRDN. ISSN 0144-1965.
- [MGH<sup>+</sup>88] K. B. McAfee, Jr., D. M. Gay, R. S. Hozack, R. A. Laudise, and W. A. Sunder. Thermodynamic stability and reactivity of AlSb and their relationship to crystal growth. *Journal of Crystal Growth*, 88:488–498, 1988. CODEN JCRGAE. ISSN 0022-0248 (print), 1873-5002 (electronic).
- [MGWH85] K. B. McAfee, D. M. Gay, K. L. Walker, and R. S. Hozack. Thermodynamic stability and incorporation of phosphorus into germanium-doped silica glass. *J. Amer. Ceramic Soc.*, 68:359–362, 1985. CODEN JACTAW. ISSN 0002-7820 (print), 1551-2916 (electronic).
- [MMR78] Olvi L. Mangasarian, Robert R. Meyer, and Stephen M. Robinson, editors. *Nonlinear programming 3: proceedings of the Special Interest Group on Mathematical Programming symposium / conducted by the Computer Sciences Department at the University of Wisconsin-Madison, July 11–13, 1977*. Academic Press, New York, NY, USA, 1978. ISBN 0-12-486660-3. LCCN T57.8 .N67 1977.
- [Moo88] Ramon E. Moore, editor. *Reliability in Computing: the Role*

of *Interval Methods in Scientific Computing*, volume 19 of *Perspectives in computing*. Academic Press, New York, NY, USA, 1988. ISBN 0-12-505630-3. xv + 428 pp. LCCN QA76.9.E94 R45 1988.

**McCloskey:2006:ASI**

- [MZGB06] Bill McCloskey, Feng Zhou, David Gay, and Eric Brewer. Autolocker: synchronization inference for atomic sections. *ACM SIGPLAN Notices*, 41(1): 346–358, January 2006. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

**Nickel:1980:IMP**

- [Nic80] Karl L. E. Nickel, editor. *Interval mathematics 1980: proceedings of an International Symposium on Interval Mathematics, held at the Institut für Angewandte Mathematik, Universität Freiburg i. Br., Germany, May 27–31, 1980*. Academic Press, New York, NY, USA, 1980. ISBN 0-12-518850-1. LCCN QA297.75 .I57 1980.

**Phipps:2008:LST**

- [PBG08] Eric T. Phipps, Roscoe A. Bartlett, and David M. Gay. Large-scale transient sensitivity analysis of a radiation-damaged bipolar junction transistor via automatic differentiation. In Bischof et al. [BBH<sup>+</sup>08], pages 351–362. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN

1439-7358. LCCN QA304 .I58 2008. URL [http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3\\_31](http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_31).

**Wouk:1987:NCE**

- [Wou87] Arthur Wouk, editor. *New Computing Environments: Microcomputers in Large-Scale Computing*. SIAM, Philadelphia, PA, USA, 1987. ISBN 0-89871-210-6. x + 166 pp. LCCN QA76.5 .W66 1985.

**Yelick:1998:THPa**

- [YSP<sup>+</sup>98a] Kathy Yelick, Luigi Semenzato, Geoff Pike, Carleton Miyamoto, Ben Liblit, Arvind Krishnamurthy, Paul Hilfinger, Susan Graham, David Gay, Phil Colella, and Alex Aiken. Titanium: A high-performance Java dialect. In ACM [ACM98a], page ?? ISBN ??? LCCN ??? URL <http://www.cs.ucsb.edu/conferences/java98/papers/titanium.pdf>; <http://www.cs.ucsb.edu/conferences/java98/papers/titanium.ps>. Possibly unpublished, except electronically.

**Yelick:1998:THPb**

- [YSP<sup>+</sup>98b] Kathy Yelick, Luigi Semenzato, Geoff Pike, Carleton Miyamoto, Ben Liblit, Arvind Krishnamurthy, Paul Hilfinger, Susan Graham, David Gay, Phil Colella, and Alex Aiken. Titanium: a high-performance Java dialect. *Concurrency: Practice and Experience*, 10(11–13):825–836, September 1998.

CODEN CPEXEI. ISSN  
1040-3108 (print), 1096-9128  
(electronic). URL <http://www3.interscience.wiley.com/cgi-bin/abstract?ID=10050392>;  
<http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=10050392&PLACEBO=IE.pdf>.  
Special Issue: Java for High-performance Network Computing.