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Abstract

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$AX + XB = C$ [101, 100, 90]. $Ax = \lambda Bx$ [31, 42]. h [311]. L [275]. l_2 [57]. QR [196, 375, 229, 219, 138].

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References

Golub:1959:UCM

[1] Gene Howard Golub. *The Use of Chebyshev Matrix Polynomials in the Iterative Solution of Linear Equations Compared to the Method of Successive Overrelaxation*. Ph.d. thesis in mathematics, Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA, March 1959. vi + 134 pp. Also published as Technical Report UIUC-DCS-R-59-85. Abstracted in Dissertation Abstracts, v. 20 (1959), no. 5.

Golub:1961:CSIa

[2] Gene H. Golub and Richard S. Varga. Chebyshev semi-iterative methods, successive overrelaxation iterative methods, and second order Richardson iterative methods. I. *Numerische Mathematik*, 3 (1):147–156, December 1961. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Reprinted in [495].

Golub:1961:CSIb

[3] Gene H. Golub and Richard S. Varga. Chebyshev semi-iterative methods, successive overrelaxation iterative methods, and second order Richardson iterative methods. II. *Numerische Mathematik*, 3 (1):157–168, December 1961. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Golub:1962:BET

[4] Gene H. Golub. Bounds for eigenvalues of tridiagonal symmetric matrices computed by the LR method. *Mathematics of Computation*, 16(80):438–445, October 1962. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2003134`.

Golub:1962:BRE

[5] Gene H. Golub. Bounds for the round-off errors in the Richardson second order method. *Nordisk tidskrift for informationsbehandling*, 2(4):212–223, December 1962. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=2&issue=4&spage=212`.

Golub:1963:CVM

[6] Gene H. Golub. Comparison of the variance of minimum variance and weighted least squares regression coefficients. *Annals of Mathematical Statistics*, 34(3): 984–991, September 1963. CODEN AASTAD. ISSN 0003-4851 (print), 2168-8990 (electronic). URL `http://projecteuclid.org/euclid.aoms/1177704021`.

Golub:1963:LBR

[7] Gene H. Golub. On a lower bound for the rank of a partitioned square matrix. *Mathematics of Computation*, 17(82): 186–188, April 1963. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2003639`.

Golub:1963:RBG

[8] Gene H. Golub. Review: *A Guide to ALGOL Programming*, by Daniel D. McCracken. *Journal of the American Statistical Association*, 58(304): 1202, December 1963. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL `http://www.jstor.org/stable/2283384`.

Golub:1964:RPP

[9] G. H. Golub. Recent publications and presentations: *An Introduction to Computational Methods*, by K. A. Redish. *American Mathematical Monthly*, 71(10):1145, December 1964. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Businger:1965:LLS

[10] Peter A. Businger and Gene H. Golub. Linear least squares solutions by Householder transformations. *Numerische Mathematik*, 7(3):269–276, June 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Also in [432, pp. 111–118].

Forsythe:1965:SVS

[11] George E. Forsythe and Gene H. Golub. On the stationary values of a second-degree polynomial on the unit sphere. *Journal of the Society for Industrial and Applied Mathematics*, 13(4):1050–1068, December 1965. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic). URL `http://www.jstor.org/stable/2946425`. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Golub:1965:CSV

[12] G. H. Golub and W. Kahan. Calculating the singular values and pseudo-inverse of a matrix. *Journal of the Society for Industrial and Applied Mathematics: Series B, Numerical Analysis*, 2(2):205–224, ???? 1965. ISSN 0887-459X (print), 1095-7170 (electronic). Reprinted in [495].

Golub:1965:IRL

[13] G. H. Golub and J. H. Wilkinson. Iterative refinement of least square solution. In Kalenich [427], pages 606–607. LCCN QA76 .I575. Two volumes.

Golub:1965:NMSa

[14] Gene H. Golub. Numerical methods for solving linear least squares problems. *Aplicace Mathematicky*, 10(??):213–216, ???? 1965. CODEN APMTAK. ISSN 0373-6725.

Golub:1965:NMSb

[15] G. H. Golub. Numerical methods for solving linear least squares problems. *Numerische Mathematik*, 7(3):206–216, June 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Reprinted in [495].

Golub:1966:NIR

[16] G. H. Golub and J. H. Wilkinson. Note on the iterative refinement of least squares solution. *Numerische Mathematik*, 9(2):139–148, December 1966. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bjorck:1967:API

[17] Åke Björck and Gene H. Golub. Algol programming: Iterative refinement of linear least squares solutions by Householder transformation. *BIT*, 7(4):322–337, December 1967. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=7&issue=4&spage=322`.

Golub:1967:GBA

[18] G. H. Golub and T. N. Robertson. A generalized Bairstow algorithm. *Communications of the Association for Computing Machinery*, 10(6):371–373, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bartels:1968:ACS

[19] Richard H. Bartels and Gene H. Golub. Algorithm 328: Chebyshev solution to an overdetermined linear system [F4]. *Communications of the Association for Computing Machinery*, 11(6): 428–430, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [381].

Bartels:1968:NAS

[20] Richard H. Bartels and Gene H. Golub. Numerical analysis: Stable numerical methods for obtaining the Chebyshev solution to an overdetermined system of equations. *Communications of the Association for Computing Machinery*, 11(6): 401–406, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See algorithm [19].

Golub:1968:LSS

[21] G. H. Golub. Least squares, singular values, and matrix approximations. *Aplicace Mathematicky*, 13(??):44–51, ???? 1968. CODEN APMTAK. ISSN 0373-6725.

Bartels:1969:ASM

[22] Richard H. Bartels and Gene H. Golub. Algorithm 350: simplex method procedure employing LU decomposition [H]. *Communications of the Association for Computing Machinery*, 12(5): 275–278, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). ACM Algorithm 350.

Bartels:1969:SML

[23] Richard H. Bartels and Gene H. Golub. The simplex method of linear programming using LU decomposition. *Communications of the Association for Computing Machinery*, 12(5):266–268, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Reprinted in [495].

Businger:1969:AAS

[24] Peter A. Businger and Gene H. Golub. Algorithm 358: singular value decomposition of a complex matrix [F1, 4, 5]. *Communications of the Association for Computing Machinery*, 12(10):564–565, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). ACM Algorithm 358.

Golub:1969:CGQ

[25] Gene H. Golub and John H. Welsch. Calculation of Gauss quadrature rules. *Mathematics of Computation*, 23 (106):221–230 + s1–s10, April 1969. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2004418`. Loose microfiche suppl A1–A10. Reprinted in [495].

Golub:1969:MDSa

[26] G. H. Golub. Matrix decompositions and statistical calculations. Technical Report 124, Department of Computer Science, Stanford University, Stanford, CA, ???? 1969.

Golub:1969:MDSb

[27] G. H. Golub. Matrix decompositions and statistical computation. In Milton and Nelder [428], pages 365–397. LCCN QA276.4 .C6 1969.

Golub:1969:SVR

[28] G. H. Golub and R. Underwood. Stationary values of the ratio of quadratic forms subject to linear constraints. Technical Report CS-142, Department of Computer Science, Stanford University, Stanford, CA, ???? 1969. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Bartels:1970:NTM

[29] R. H. Bartels, G. H. Golub, and M. A. Saunders. Numerical techniques in mathematical programming. In Rosen et al. [430], pages 123–176. ISBN 0-12-597050-1. LCCN QA3 .U45 no. 25. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Buzbee:1970:DMS

[30] B. L. Buzbee, G. H. Golub, and C. W. Nielson. On direct methods for solving Poisson's equations. *SIAM Journal on Numerical Analysis*, 7(4):627–656, December 1970. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). Reprinted in [495].

Golub:1970:LAS

[31] G. H. Golub, R. Underwood, and J. H. Wilkinson. The Lanczos algorithm for the symmetric $Ax = \lambda Bx$ problem. Technical report 142, Computer Science Department, Stanford University, Stanford, CA, USA, 1970.

Golub:1970:LLS

[32] G. H. Golub and M. A. Saunders. Linear least squares and quadratic programming. In Abadie [429], pages 229–256. ISBN 0-444-10000-8. LCCN T57.7 .I57. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Golub:1970:SUL

[33] G. H. Golub. Some uses of the Lanczos algorithm in numerical linear algebra. Report STAN-CS-72-302, Computer Science Department, Stanford University, Stanford, CA, USA, 1970.

Golub:1970:SVD

[34] G. H. Golub and C. Reinsch. Singular value decomposition and least squares solutions. *Numerische Mathematik*, 14(5):403–420, April 1970. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Also in [432, pp. 134–151]. Reprinted in [495].

Golub:1970:SVR

[35] Gene H. Golub and Richard Underwood. Stationary values of the ratio of quadratic forms subject to linear constraints. *Z. Angew. Math. Phys*, 21 (??):319–326 (or 318–326??), ???? 1970. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic).

Buzbee:1971:DSD

[36] B. L. Buzbee, F. W. Dorr, J. A. George, and G. H. Golub. The direct solution of

the discrete Poisson equation on irregular regions. *SIAM Journal on Numerical Analysis*, 8(4):722–736, December 1971. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Golub:1971:AAC

[37] G. H. Golub and L. B. Smith. ACM algorithm 414: Chebyshev approximation of continuous functions by a Chebyshev system of functions. *Communications of the Association for Computing Machinery*, 14(11):737–746, November 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). ACM Algorithm 414.

Golub:1971:DMS

[38] G. H. Golub. Direct methods for solving elliptic difference equations. In Morris [431], pages 1–19. ISBN 0-387-05422-7. LCCN QA3 .L35 v.193.

Golub:1971:MMM

[39] Gene Golub. Matrix methods in mathematical programming. *Lecture Notes in Mathematics*, 193:21–39, 1971. CODEN LNMAA2. ISBN 3-540-05422-7 (print), 3-540-36538-9 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0060342/`.

Golub:1971:SME

[40] G. H. Golub. Some modified eigenvalue problems. *Lecture Notes in Mathematics*, 228:56, 1971. CODEN LNMAA2. ISBN 3-540-05656-4 (print), 3-540-36976-7 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0069447`.

Dahlquist:1972:BEL

[41] Germund Dahlquist, Stanley C. Eisenstat, and Gene H. Golub. Bounds for the error of linear systems of equations using the theory of moments. *Journal of Mathematical Analysis and Applications*, 37(1):151–166, January 1972. CODEN JMANAK. ISSN 0022-247X (print), 1096-0813 (electronic).

Golub:1972:LAS

[42] G. H. Golub, R. Underwood, and J. H. Wilkinson. The Lanczos algorithm for the symmetric $Ax = \lambda Bx$ problem. Technical Report STAN-CS-72-270, Computer Science, Stanford University, Stanford, CA, USA, 1972. 24 pp.

Bjorck:1973:NMC

[43] Åke Björck and Gene H. Golub. Numerical methods for computing angles between linear subspaces. *Mathematics of Computation*, 27(123):579–594, July 1973. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2005662`. Reprinted in [495].

Concus:1973:UFD

[44] Paul Concus and Gene H. Golub. Use of fast direct methods for the efficient numerical solution of nonseparable elliptic equations. *SIAM Journal on Numerical Analysis*, 10(6):1103–1120, December 1973. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://www.jstor.org/stable/2156207`.

Dantzig:1973:NSO

[45] G. B. Dantzig, R. W. Cottle, B. C. Eaves, G. H. Golub, F. S. Hillier, A. S.

Manne, D. J. Wilde, and R. B. Wilson. On the need for a Systems Optimization Laboratory. In Hu and Robinson [433], pages 1–32. ISBN 0-12-358350-0. LCCN QA3.U45 no. 30 T57.7.

Golub:1973:CLI

[46] G. H. Golub and W. Dent. Computation of the limited information maximum likelihood estimator. In Tarter [437], pages 60–65. LCCN QA276.A1 C67 1972.

Golub:1973:CSD

[47] G. H. Golub and E. Seneta. Computation of the stationary distribution of an infinite Markov matrix. *Bulletin of the Australian Mathematical Society*, 8(??): 333–341, ???? 1973. CODEN ALNBAB. ISSN 0004-9727 (print), 1755-1633 (electronic).

Golub:1973:DPI

[48] G. H. Golub and V. Pereyra. The differentiation of pseudo-inverses and nonlinear least squares problems whose variables separate. *SIAM Journal on Numerical Analysis*, 10(2):413–432, April 1973. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). Reprinted in [495].

Golub:1973:EPR

[49] Gene H. Golub, Irwin Guttman, and Rudolf Dutter. Examination of pseudo-residuals of outliers for detecting spurosity in the general univariate linear model. In Kabe and Gupta [434], pages 63–108. ISBN 0-444-10532-8. LCCN QA278 .M861.

Golub:1973:NCU

[50] Gene H. Golub and George P. H. Styan. Numerical computations for univariate linear models. *Journal of Statistical Computation and Simulation*, 2 (3):253–274, 1973. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163.

Golub:1973:SAN

[51] G. H. Golub and George P. H. Styan. Some aspects of numerical computations for linear models. In Kennedy [435], pages 189–192. LCCN QA 276.4 C58 1973.

Golub:1973:SMM

[52] Gene H. Golub. Some modified matrix eigenvalue problems. *SIAM Review*, 15(2):318–334, April 1973. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://www.jstor.org/stable/2028604`. Cited in Åke Björck's bibliography on least squares, which is available at `ftp://math.liu.se/pub/references`. Reprinted in [495].

Golub:1973:SUL

[53] G. H. Golub. Some uses of the Lanczos algorithm in numerical algebra. In Miller [436], pages 173–184. ISBN 0-12-496950-X. LCCN QA297 .R691 1972.

Fischer:1974:FTM

[54] D. Fischer, G. Golub, O. Hald, C. Leiva, and O. Widlund. On Fourier–Toeplitz methods for separable elliptic problems. *Mathematics of Computation*, 28(126): 349–368, April 1974. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Gill:1974:MMM

[55] P. E. Gill, G. H. Golub, W. Murray, and M. A. Saunders. Methods for

modifying matrix factorizations. *Mathematics of Computation*, 28(126):505–535, April 1974. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). Reprinted in [495].

Golub:1974:BMM

[56] G. H. Golub. Bounds for matrix moments. *Rocky Mountain Journal of Mathematics*, 4(2):207–211, ???? 1974. CODEN RMJMAE. ISSN 0035-7596 (print), 1945-3795 (electronic). URL `http://projecteuclid.org/euclid.rmjm/1250130962`. Proceedings of the International Conference on Padé Approximants, Continued Fractions and Related Topics (Univ. Colorado, Boulder, Colo., 1972; dedicated to the memory of H. S. Wall).

Golub:1974:CBS

[57] G. H. Golub and J. M. Varah. On a characterization of the best l_2-scaling of a matrix. *SIAM Journal on Numerical Analysis*, 11(3):472–479, June 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Golub:1974:CSD

[58] G. H. Golub and E. Seneta. Computation of the stationary distribution of an infinite stochastic matrix of special form. *Bulletin of the Australian Mathematical Society*, 10(??):255–261, ???? 1974. CODEN ALNBAB. ISSN 0004-9727 (print), 1755-1633 (electronic).

Golub:1974:MCE

[59] G. H. Golub. Methods for computing eigenvalues of sparse matrix equations. In Pereyra [438], pages 127–148. ISBN ???? LCCN ????

Miller:1974:TNA

[60] John J. H. Miller, editor. *Topics in Numerical Analysis II: Proceedings of the Royal Irish Academy Conference on Numerical Analysis, 1974*. Academic Press, New York, NY, USA, 1974. ISBN 0-12-496952-6. xiv + 266 pp. LCCN QA297.R69 1974.

Concus:1975:GCG

[61] Paul Concus and Gene H. Golub. A generalized conjugate gradient method for non-symmetric systems of linear equations. In Glowinski and Lions [440], pages 56–65. ISBN 0-387-07990-4, 0-387-08003-1, 3-540-08003-1, 3-540-37550-3 (e-book). LCCN TA345.I57 1975b. URL `http://www.springer.com/gp/book/9783540375500; http://www.springer.com/us/book/9783540079903`. Reprinted in [495].

Golub:1975:ICE

[62] G. H. Golub and J. H. Wilkinson. Ill-conditioned eigensystems and the computation of the Jordan canonical form. Technical Report STAN-CS-75-478, Department of Computer Science, Stanford University, Stanford, CA, 1975. Published as [71].

Golub:1975:SMC

[63] G. H. Golub. Sparse matrix computations: Eigenvalues and linear equations. In Anonymous [439], pages 117–140. ISBN ???? LCCN ????

Golub:1975:WPS

[64] G. H. Golub, L. Jenning, and W. H. Yang. Waves in periodically structured media. *Journal of Computational Physics*, 17(4):349–357, April 1975. CODEN JCTPAH. ISSN 0021-9991 (print),

1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/002199917590039X`.

Cline:1976:CNM

[65] A. K. Cline, G. H. Golub, and G. W. Platzman. Calculation of normal modes of oceans using a Lanczos method. In Bunch and Rose [442], pages 409–426. ISBN 0-12-141050-1. LCCN QA188 .S989 1975.

Concus:1976:GCGa

[66] P. Concus and G. H. Golub. A generalized Conjugate Gradient method for nonsymmetric systems of linear equations. Technical Report STAN-CS-76-535, Department of Computer Science, Stanford University, Stanford, CA, ???? 1976.

Concus:1976:GCGb

[67] Paul Concus, Gene H. Golub, and Dianne P. O'Leary. A generalized conjugate gradient method for the numerical solution of elliptic partial differential equations. In Bunch and Rose [442], pages 309–332. ISBN 0-12-141050-1. LCCN QA188 .S989 1975. Reprinted in [495].

Concus:1976:NSN

[68] Paul Concus, Gene H. Golub, and Dianne P. O'Leary. Numerical solutions of nonlinear elliptic partial differential equations by a generalized conjugate gradient method. Technical Report STAN-CS-76-585, Department of Computer Science, Stanford University, Stanford, CA, ???? 1976. 43 pp.

Golub:1976:CVO

[69] G. H. Golub, M. Heath, and G. Wahba. Cross-validation and optimum ridge regression. *SIAM Review*, 18(4):806, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Golub:1976:DPI

[70] G. H. Golub and V. Pereyra. Differentiation of pseudo-inverses, separable nonlinear least squares problems and other tales. In Nashed [443], pages 303–324. ISBN 0-12-514250-1. LCCN QA3 .U45 no. 32.

Golub:1976:ICE

[71] G. H. Golub and J. H. Wilkinson. Ill-conditioned eigensystems and the computation of the Jordan canonical form. *SIAM Review*, 18(4):578–619, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). Reprinted in [495].

Golub:1976:RDLa

[72] Gene H. Golub, Virginia Klema, and G. W. Stewart. Rank degeneracy and least squares problems. Technical Report TR-456, University of Maryland, College Park, MD, USA, June 1976. ???? pp. Also published as Stanford University Computer Science Department Technical Report STAN-CS-76-559.

Golub:1976:RDLb

[73] G. H. Golub, Virginia Klema, and G. W. Stewart III. Rank degeneracy and least squares problems. Report TR-751, Department of Computer Science, University of Maryland, College Park, MD, USA, ???? 1976. ???? pp.

Golub:1976:SVD

[74] G. H. Golub and F. Luk. Singular value decomposition: applications and computations. In ANCAC '76 [441], page ?? ISBN ?? LCCN ??

Bjorck:1977:EMA

[75] Åke Björck and Gene H. Golub. Eigenproblems for matrices associated with periodic boundary conditions. *SIAM Review*, 19(1):5–16, January 1977. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://www.jstor.org/stable/2029322`.

Boley:1977:IEPa

[76] D. Boley and Gene H. Golub. Inverse eigenvalue problems for band matrices. Technical Report STAN-CS-77-623, Department of Computer Science, Stanford University, Stanford, CA, ???? 1977. 9 pp.

Boley:1977:IEPb

[77] D. Boley and G. H. Golub. Inverse eigenvalue problems for band matrices. In Watson [449], page ?? ISBN 0-387-08538-6. LCCN QA1 .L471 v.630. DM24.80.

Buzbee:1977:VCS

[78] B. Buzbee, G. Golub, and J. Howell. Vectorizations for the CRAY-1 of some methods for solving elliptic difference equations. In Kuck et al. [445], pages 255–271. ISBN 0-12-427750-0. LCCN QA76.5 S95 1977.

deBoor:1977:NSR

[79] Carl de Boor and Gene H. Golub. The numerically stable reconstruction of a Jacobi matrix from spectral data. Technical Report STAN-CS-77-602, Department of Computer Science, Stanford University, Stanford, CA, ???? 1977. 18 pp.

Golub:1977:BLM

[80] G. H. Golub and R. Underwood. The block Lanczos method for computing eigenvalues. In Rice [446], pages 364–377 (or 361–377??). ISBN 0-12-587260-7. LCCN QA3 .U45 no. 39; QA297 .M36 1977. URL `https://www.sciencedirect.com/book/9780125872607/mathematical-software`. Reprinted in [495].

Golub:1977:GCV

[81] Gene H. Golub, Michael Heath, and Grace Wahba. Generalized cross-validation as a method for choosing a good ridge parameter. Technical Report STAN-CS-77-622, Department of Computer Science, Stanford University, Stanford, CA, ???? 1977. 24 pp. Also issued as Dept. of Statistics Technical Report no. 491, University of Wisconsin, Madison, WI.

Golub:1977:TTC

[82] Gene H. Golub and Franklin T. Luk. Singular value decomposition: applications and computations. In ARMY MATH'76 [444], pages 577–605. ISBN ???? LCCN ????

Golub:1977:TTS

[83] Gene H. Golub and Franklin T. Luk. Singular value decomposition: applications and computations. In ARMY MATH'76 [444], pages 577–605. ISBN ???? LCCN ????

Boley:1978:IEP

[84] D. Boley and G. H. Golub. Inverse eigenvalue problems for band matrices. In Watson [449], pages 23–31. ISBN 0-387-08538-6. LCCN QA1 .L471 v.630. DM24.80.

Boley:1978:MIEa

[85] D. Boley and Gene H. Golub. The matrix inverse eigenvalue problem for periodic Jacobi matrices. Technical Report STAN-CS-78-684, Department of Computer Science, Stanford University, Stanford, CA, ???? 1978. [5] + 14 pp.

Boley:1978:MIEb

[86] D. L. Boley and G. H. Golub. The matrix inverse eigenvalue problem for periodic Jacobi matrices. In Marek [448], pages 63–76. ISBN ?? LCCN ??

Concus:1978:NSN

[87] P. Concus, G. H. Golub, and D. P. O'Leary. Numerical solution of nonlinear elliptic partial differential equations by a generalized conjugate gradient method. *Computing*, 19(4):321–339, ???? 1978. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Cottle:1978:SLS

[88] Richard W. Cottle, Gene H. Golub, and Richard S. Sacher. On the solution of large structured linear complementarity problems: the block partitioned case. *Applied Mathematics and Optimization*, 4(4):347–363, ???? 1978. CODEN AMOMBN. ISSN 0095-4616 (print), 1432-0606 (electronic).

deBoor:1978:NSR

[89] C. de Boor and G. H. Golub. The numerically stable reconstruction of a Jacobi matrix from spectral data. *Linear Algebra and its Applications*, 21 (3):245–260, September 1978. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0024379578900861`. Reprinted in [495].

Golub:1978:SHM

[90] G. H. Golub, S. Nash, and C. Van Loan. A Schur-Hessenberg method for the problem $Ax + xB = C$. Technical Report TR 78-354, Cornell University, Ithaca, NY, USA, October 1978. URL `mailto::lmc@cs.cornell.edu`.

Golub:1978:UPD

[91] G. H. Golub and C. Van Loan. Unsymmetric positive definite linear systems. Technical Report TR 78-352, Cornell University, Ithaca, NY, USA, September 1978. URL `mailto::lmc@cs.cornell.edu`.

VanLoan:1978:SUP

[92] C. Van Loan and G. H. Golub. Solving unsymmetric positive definite linear systems. *SIAM Review*, 20(3):636, ???? 1978. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Bauer:1979:ES

[93] F. L. Bauer, G. H. Golub, A. S. Householder, and K. Samelson. Eduard L. Stiefel: 4/21/1909–11/27/1978. *Numerische Mathematik*, 32(4):480–481, December 1979. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). With a German translation.

Dahlquist:1979:BEL

[94] Germund Dahlquist, Gene H. Golub, and Stephen G. Nash. Bounds for the error in linear systems. In Hettich [454], pages 154–172. ISBN 3-540-09479-2. LCCN QA402.5 .S43.

Dahlquist:1979:SIP

[95] Germund Dahlquist, Gene H. Golub, and Stephen G. Nash. Bounds for the error in linear systems. In Hettich [454], pages 154–172. ISBN 3-540-09479-2. LCCN QA402.5 .S43.

Golub:1979:CMA

[96] Gene H. Golub and Robert J. Plemmons. Sparse least squares problems. In Glowinski and Lions [453], pages 489–496. ISBN 0-444-86008-8. LCCN TA345 .I57 1979.

Golub:1979:DSE

[97] G. H. Golub and W. Langlois. Direct solution of the equation for the Stokes stream function. *Computer Methods in Applied Mechanics and Engineering*, 19 (3):391–399, September 1979. CODEN CMMECC. ISSN 0045-7825 (print), 1879-2138 (electronic).

Golub:1979:EUV

[98] Gene H. Golub and Randall J. LeVeque. Extensions and uses of the variable projection algorithm for solving nonlinear least squares problems. In Army Numerical Analysis '79 [450], pages 1–12. ISBN ?? LCCN ??

Golub:1979:GCV

[99] Gene H. Golub, Michael T. Heath, and Grace Wahba. Generalized cross-validation as a method for choosing a good ridge parameter. *Technometrics*, 21(2):215–223, May 1979. CODEN TCMTA2. ISSN 0040-1706 (print), 1537-2723 (electronic). URL `http://www.jstor.org/stable/1268518`. Cited in Åke Björck's bibliography on least squares, which is available at `ftp://math.liu.se/pub/references`. Reprinted in [495].

Golub:1979:HSMa

[100] Gene H. Golub, Stephen Nash, and Charles F. Van Loan. A Hessenberg–Schur method for the problem $AX + XB = C$. Technical Report STAN-CS-79-713, Department of Computer Science, Stanford University, Stanford, CA, ???? 1979. 50 pp.

Golub:1979:HSMb

[101] G. H. Golub, S. Nash, and C. Van Loan. A Hessenberg–Schur method for the matrix problem $AX + XB = C$. *IEEE Transactions on Automatic Control*, 24(6):909–913, ???? 1979. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic).

Golub:1979:LSL

[102] G. H. Golub, F. Luk, and M. Pagano. A large sparse least squares problem in photogrammetry. In Gentleman [452], page ?? LCCN QA 276.4 C58 1979.

Golub:1979:SLS

[103] G. H. Golub and R. Plemmons. Sparse least squares problems. In CMASE'79 [455], page ??

Golub:1979:TLS

[104] Gene H. Golub and Charles F. Van Loan. Total least squares. In Gasser and Rosenblatt [451], pages 69–76. ISBN 0-387-09706-6. LCCN QA3 .L35 v.757. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Golub:1979:UPD

[105] Gene H. Golub and Charles F. Van Loan. Unsymmetric positive definite linear systems. *Linear Algebra and its Applications*, 28(??): 85–97, December 1979. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0024379579901228`.

Golub:1980:ATLa

[106] G. H. Golub and C. F. Van Loan. An analysis of the total least squares problem. Technical Report 80-411, Cornell University, Ithaca, NY, USA, February 1980. URL `mailto::lmc@cs.cornell.edu`.

Golub:1980:ATLb

[107] Gene H. Golub and Charles F. Van Loan. An analysis of the total least squares problem. *SIAM Journal on Numerical Analysis*, 17(6):883–893, December 1980. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://www.jstor.org/stable/2156807`. Reprinted in [495].

Golub:1980:LSG

[108] Gene H. Golub and Robert J. Plemmons. Large-scale geodetic least-squares adjustment by dissection and orthogonal decomposition. *Linear Algebra and its Applications*, 34:3–28, December 1980. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1980:RSD

[109] G. Golub, V. Klema, and S. C. Peters. Rules and software for detecting rank degeneracy. *Journal of Econometrics*, 12(1):41–48, ???? 1980. CODEN JECMB6. ISSN 0304-4076 (print), 1872-6895 (electronic).

Golub:1980:SLS

[110] Gene H. Golub and Robert J. Plemmons. Sparse least squares problems. In Glowinski and Lions [456], pages 489–496. ISBN 0-444-86008-8. LCCN TA345 .I57 1979.

Ward:1980:NLA

[111] Robert C. Ward and Gene H. Golub. Numerical linear algebra. *ACM SIGNUM Newsletter*, 15(3):9–26, September 1980. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Bjorck:1981:EMA

[112] Åke Björck and Gene H. Golub. Eigenproblems for matrices associated with periodic boundary conditions. (Chinese). *Yingyong Shuxue yu Jisuan Shuxue*, 1(??):10–18, ???? 1981. Translated from the English by Cheng Ming Huang.

Golub:1981:BDV

[113] G. H. Golub and W. P. Tang. The block decomposition of a Vandermonde matrix and its applications. *BIT*, 21 (??):505–517, 1981. CODEN BITTEL. ISSN 0006-3835 (print), 1572-9125 (electronic).

Golub:1981:BLM

[114] Gene H. Golub, Franklin T. Luk, and Michael L. Overton. A block Lanczos method for computing the singular values and corresponding singular vectors of a matrix. *ACM Transactions on Mathematical Software*, 7(2): 149–169, June 1981. CODEN ACMSCU.

ISSN 0098-3500 (print), 1557-7295 (electronic). Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Tang:1981:BDV

[115] W. P. Tang and G. H. Golub. The block decomposition of a Vandermonde matrix and its applications. *BIT*, 21(4): 505–517, December 1981. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=21&issue=4&spage=505`.

Chan:1982:ACS

[116] T. F. Chan, G. H. Golub, and R. J. Le Veque. Algorithms for computing the sample variance: Analysis and recommendations. ?? 222, Department of Computer Science, Yale University, ??, ???? 1982.

Chan:1982:UFP

[117] T. F. Chan, G. H. Golub, and R. J. LeVeque. Updating formulae and a pairwise algorithm for computing sample variances. In Caussinus et al. [457], pages 30–41. ISBN 3-7051-0002-5 (v.1), 3-7051-0001-7 (v.2). LCCN QA276.4 .C194 1982. Two volumes.

Golub:1982:CTS

[118] Gene H. Golub and Michael L. Overton. Convergence of a two-stage Richardson iterative procedure for solving systems of linear equations. In Watson [458], pages 125–139. CODEN LNMAA2. ISBN 0-387-11199-9 (softcover), 3-540-11199-9 (softcover), 3-540-39009-X (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3 .L28 no. 912; QA1 .L471; QA297 .D915n 1981. URL `http://www.springerlink.com/content/978-3-540-39009-1`.

Golub:1982:NAV

[119] Gene H. Golub and Stephen G. Nash. Nonorthogonal analysis of variance using a generalized conjugate-gradient algorithm. *Journal of the American Statistical Association*, 77(377):109–116, March 1982. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL `http://www.jstor.org/stable/2287776`. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Paige:1982:LAS

[120] C. C. Paige and M. A. Saunders. LSQR: an algorithm for sparse linear equations and sparse least squares. *ACM Transactions on Mathematical Software*, 8(1): 43–71, March 1982. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Chan:1983:ACS

[121] Tony F. Chan, Gene H. Golub, and Randall J. LeVeque. Algorithms for computing the sample variance: Analysis and recommendations. *The American Statistician*, 37(3):242–247, August 1983. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL `http://www.jstor.org/stable/2683386`.

Golub:1983:CGQ

[122] G. H. Golub and J. Kautský. Calculation of Gauss quadratures with multiple free and fixed knots. *Numerische Mathematik*, 41(2):147–163, June 1983.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Golub:1983:MC

[123] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*. Johns Hopkins Series in the Mathematical Sciences. The Johns Hopkins University Press and North Oxford Academic, Baltimore, MD, USA and Oxford, England, 1983. ISBN 0-8018-3010-9 (hardcover), 0-8018-3011-7 (paperback), 0-946536-00-7, 0-946536-05-8 (paperback). xvi + 476 pp. LCCN QA188 .G65 1983. URL `http://www.jstor.org/stable/2008107; http://www.jstor.org/stable/2030489; http://www.jstor.org/stable/3616959`.

Golub:1983:RNG

[124] Gene H. Golub and Gérard A. Meurant. *Résolution Numérique des Grands Systèmes Linéaires (English: Numerical solution of large linear systems)*, volume 49 of *Collection de la Direction des Etudes et Recherches de l'Electricité de France*. Editions Eyrolles, Paris, France, 1983. ISBN ?? x + 329 pp. LCCN ??

Golub:1983:UPI

[125] G. Golub and D. Mayers. The use of preconditioning over irregular regions. In Blackburn [459], page ?? ISBN ?? LCCN ??

Kautsky:1983:CJM

[126] J. Kautský and G. H. Golub. On the calculation of Jacobi matrices. *Linear Algebra and its Applications*, 52/53:439–456, 1983. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Boley:1984:LAA

[127] D. L. Boley and G. H. Golub. The Lanczos–Arnoldi algorithm and controllability. *Systems and Control Letters*, 4 (6):317–324, September 1984. CODEN SCLEDC. ISSN 0167-6911 (print), 1872-7956 (electronic).

Boley:1984:MMR

[128] Daniel Boley and Gene H. Golub. A modified method for reconstructing periodic Jacobi matrices. *Mathematics of Computation*, 42(165):143–150, January 1984. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2007564`.

Concus:1984:GCG

[129] Paul Concus, Gene H. Golub, and Dianne P. O'Leary. A generalized conjugate gradient method for the numerical solution of elliptic partial differential equations. *MAA studies in mathematics*, 24(??):178–198, ???? 1984. CODEN MSTMBI. ISSN 0081-8208. Reprinted in [495].

Gallant:1984:ICR

[130] A. Ronald Gallant and Gene H. Golub. Imposing curvature restrictions on flexible functional forms. *Journal of Econometrics*, 26(3):295–321, December 1984. CODEN JECMB6. ISSN 0304-4076 (print), 1872-6895 (electronic).

Golub:1984:UPI

[131] Gene H. Golub and David Mayers. The use of preconditioning over irregular regions. In Glowinski and Lions [460], pages 3–14. ISBN 0-444-87597-2. LCCN QA297.I57 1983.

Concus:1985:BPC

[132] P. Concus, G. H. Golub, and G. A. Meurant. Block preconditioning for the conjugate gradient method. *SIAM Journal on Scientific and Statistical Computing*, 6(??):220–252, ???? 1985. CODEN SIJCD4. ISSN 0196-5204. See corrigendum [133].

Concus:1985:CBP

[133] P. Concus, G. H. Golub, and G. Meurant. Corrigendum: "Block preconditioning for the conjugate gradient method". *SIAM Journal on Scientific and Statistical Computing*, 6(3):791, ???? 1985. CODEN SIJCD4. ISSN 0196-5204. See [132].

Golub:1985:SLS

[134] G. H. Golub. Solution of large sparse structured least-squares problem. *Biometrics*, 41(3):799, ???? 1985. CODEN BIOMB6. ISSN 0006-341X (print), 1541-0420 (electronic).

Golub:1986:CBS

[135] G. H. Golub, P. Manneback, and Ph. L. Toint. A comparison between some direct and iterative methods for large scale geodetic least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 7(3):799–816, July 1986. CODEN SIJCD4. ISSN 0196-5204. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Golub:1986:CTS

[136] Gene H. Golub and R. Kannan. Convergence of a two-stage Richardson process for nonlinear equations. *BIT*, 26 (2):209–216, June 1986. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=26&issue=2&spage=209`.

Golub:1986:PBS

[137] Gene H. Golub, Robert J. Plemmons, and Ahmed Sameh. Parallel block schemes for large scale least squares computations. Technical Report 574, Center for Supercomputing Research and Development, University of Illinois at Urbana-Champaign, Urbana, IL, USA, April 1986. 20 pp.

Golub:1986:UFG

[138] Gene H. Golub and Carl D. Meyer, Jr. Using the QR factorization and group inversion to compute, differentiate, and estimate the sensitivity of stationary probabilities for Markov chains. *SIAM Journal of Algebraic Discrete Methods*, 7(2):273–281, April 1986. CODEN SJAMDU. ISSN 0196-5212 (print), 2168-345X (electronic).

Arbenz:1987:SDH

[139] P. Arbenz and G. H. Golub. On the spectral decomposition of Hermitian matrices subject to indefinite low rank perturbations with applications. ?? NA 87-07, Computer Science, Stanford University, Stanford, CA, ???? 1987.

Boley:1987:SMI

[140] Daniel Boley and Gene H. Golub. A survey of matrix inverse eigenvalue problems. *Inverse Problems*, 3(4):595–622, ???? 1987. CODEN INPEEY. ISSN 0266-5611 (print), 1361-6420 (electronic).

Ferziger:1987:BSA

[141] J. H. Ferziger, G. H. Golub, and M. C. Thompson. Block SOR applied to the cyclically-reduced equations as an efficient solution technique for convection-diffusion equations. In Noye et al. [464], page ?? ISBN 0-444-70400-0. LCCN QA299.6 .I561 1987.

Golub:1987:D

[142] Gene H. Golub, Iain Duff, and Cleve Moler. Dedication. *Linear Algebra and its Applications*, 88/89:1–12, 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1987:GEY

[143] G. H. Golub, Alan Hoffman, and G. W. Stewart. A generalization of the Eckart–Young–Mirsky matrix approximation theorem. *Linear Algebra and its Applications*, 88/89:317–327, 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1987:JW

[144] Gene H. Golub, Miki Neumann, James W. Demmel, Paul Saylor, James M. Boyle, Iain Duff, and Jack Dongarra. James Wilkinson (1919–1986). *Annals of the History of Computing*, 9(2):205–210, April/June 1987. CODEN AHCOE5. ISSN 0164-1239. From the introduction: "A series of lightly edited extracts from messages that were sent over various computer networks during the period October 5, 1986–February 13, 1987".

Golub:1987:LAA

[145] G. H. Golub and C. Moler. Linear algebra and its applications — in memory of James H. Wilkinson. *Linear Algebra and its Applications*, 88–89:1–3, April 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1987:LSL

[146] G. H. Golub. Large scale least squares problems. In Heiberger [463], page 3.

Golub:1987:SHC

[147] Gene H. Golub and Dianne P. O'Leary. Some history of the conjugate gradient and Lanczos algorithms: 1948–1976. Technical Report TR-1859, UMIACS-TR-87-20, Department of Computer Science, University of Maryland, College Park, MD, USA, ???? 1987. 51 pp.

Arbenz:1988:RRM

[148] Peter Arbenz, Walter Gander, and Gene H. Golub. Restricted rank modification of the symmetric eigenvalue problem: Theoretical considerations. *Linear Algebra and its Applications*, 104:75–95, 1988. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Arbenz:1988:SDH

[149] Peter Arbenz and Gene H. Golub. On the spectral decomposition of Hermitian matrices modified by low rank perturbations with applications. *SIAM Journal on Matrix Analysis and Applications*, 9 (1):40–58, ???? 1988. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Gander:1988:CEP

[150] Walter Gander, Gene H. Golub, and Urs von Matt. A constrained eigenvalue problem. In Golub and Van Dooren [473], pages 677–686. ISBN 0-387-52300-

6 (New York), 3-540-52300-6 (Berlin). LCCN QA184 .N39 1988.

Golub:1988:CIC

[151] Gene H. Golub and Michael L. Overton. The convergence of inexact Chebyshev and Richardson iterative methods for solving linear systems. *Numerische Mathematik*, 53(5):571–593, August 1988. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Golub:1988:GEY

[152] G. H. Golub, A. Hoffman, and G. W. Stewart. A generalization of the Eckart–Young–Mirsky approximation theorem. *Linear Algebra and its Applications*, 88/89:317–328, 1988. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1988:OPH

[153] Gene H. Golub and Richard S. Varga. Obituary to Peter Henrici (13. September 1923–13. March 1987). *Numerische Mathematik*, 52(5):481–482, May 1988. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Golub:1988:PBS

[154] Gene H. Golub, Robert J. Plemmons, and Ahmed Sameh. Parallel block schemes for large-scale least-squares computations. In Wilhelmson [466], pages 171–179. ISBN 0-252-01440-5. LCCN QA76.5 .H4831 1988. US$29.95.

DeMoor:1989:GSV

[155] Bart L. R. De Moor and Gene H. Golub. Generalized singular value decompositions: a proposal for a standardized nomenclature. Technical Report STAN-CS-TR-2002, Department of Computer Science, Stanford University, Stanford, CA, ???? 1989. 12 pp.

DeMoor:1989:RSV

[156] Bart L. R. De Moor and Gene H. Golub. The restricted singular value decomposition: properties and applications. Technical Report STAN-CS-TR-2001, Department of Computer Science, Stanford University, Stanford, CA, ???? 1989. 69 pp.

Elhay:1989:UDO

[157] Sylvan Elhay, Gene H. Golub, and Jaroslav Kautský. Updating and downdating of orthogonal polynomials with data fitting applications. Technical Report STAN-CS-89-04, NA-89-04, Department of Computer Science, Stanford University, Stanford, CA, ???? 1989. 32 pp.

Elman:1989:IMC

[158] Howard C. Elman and Gene H. Golub. Iterative methods for cyclically reduced non-self-adjoint linear systems II. Technical Report STAN CS-TR-2238, UMIACS-TR-89-45, Department of Computer Science, Stanford University, Stanford, CA, ???? 1989. 26 pp.

Elman:1989:LIM

[159] Howard C. Elman and Gene H. Golub. Line iterative methods for cyclically reduced non-self-adjoint elliptic problems. In TSACAMC '90 [468], pages 457–466. LCCN ??

Gander:1989:CEP

[160] Walter Gander, Gene H. Golub, and Urs von Matt. A constrained eigenvalue

problem. *Linear Algebra and its Applications*, 114/115:815–839, 1989. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Gander:1989:DLS

[161] Walter Gander and Gene H. Golub. Discussion: Linear smoothers and additive models. *Annals of Statistics*, 17(2):529–532, June 1989. CODEN ASTSC7. ISSN 0090-5364 (print), 2168-8966 (electronic). URL `http://projecteuclid.org/euclid.aos/1176347120; http://www.jstor.org/stable/2241565`.

Gander:1989:SLE

[162] Walter Gander, Gene H. Golub, and Dominik Gruntz. Solving linear equations by extrapolation. In Kowalik [467], pages 279–293. ISBN 3-540-52691-9 (Berlin), 0-387-52691-9 (New York). LCCN QA76.5 .N344 1989. "Proceedings of the NATO Advanced Research Workshop on Supercomputing, held in Trondheim, Norway, June 19-23, 1989"–T.p. verso. "Published in cooperation with NATO Scientific Affairs Division.".

Golub:1989:CEP

[163] Walter Gander, Gene H. Golub, and Urs von Matt. A constrained eigenvalue problem. *Linear Algebra and its Applications*, 114/115:815–839, 1989. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:1989:EEI

[164] Gene H. Golub and Mark D. Kent. Estimates of eigenvalues for iterative methods. *Mathematics of Computation*, 53 (188):619–626, October 1989. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2008724`.

Golub:1989:MC

[165] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*, volume 3 of *Johns Hopkins Series in the Mathematical Sciences*. The Johns Hopkins University Press, Baltimore, MD, USA, second edition, 1989. ISBN 0-8018-3772-3 (hardcover), 0-8018-3739-1 (paperback). xix + 642 pp. LCCN QA188 .G65 1989. US$14.50.

Golub:1989:MMI

[166] Gene H. Golub and Martin H. Gutknecht. Modified moments for indefinite weight functions. Technical Report STAN-CS-89-08, NA-89-08, Department of Computer Science, Stanford University, Stanford, CA, ???? 1989. 19 pp.

Golub:1989:SHC

[167] Gene H. Golub and Dianne P. O'Leary. Some history of the conjugate gradient and Lanczos algorithms: 1948–1976. *SIAM Review*, 31(1):50–102, March 1989. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://www.jstor.org/stable/2030847`.

Comon:1990:TFE

[168] Pierre Comon and Gene H. Golub. Tracking a few extreme singular values and vectors in signal processing. *Proceedings of the IEEE*, 78(8): 1327–1343, August 1990. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=58320`.

Elman:1990:IMC

[169] Howard C. Elman and Gene H. Golub. Iterative methods for cyclically reduced non-self-adjoint linear systems. *Mathematics of Computation*, 54(190):671–700, April 1990. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2008506`.

Elman:1990:IML

[170] Howard C. Elman and Gene H. Golub. Block iterative methods for cyclically reduced nonselfadjoint elliptic problems. In Kincaid and Hayes [470], pages 91–105. ISBN 0-12-407475-8. LCCN QA432 .I84 1990.

Elman:1990:LIMa

[171] Howard C. Elman and Gene H. Golub. Line iterative methods for cyclically reduced discrete convection-diffusion problems. Technical Report CS-TR-2403, UMIACS-TR-90-16, Department of Computer Science, University of Maryland, College Park, MD, USA, ???? 1990. 29 pp.

Elman:1990:LIMb

[172] Howard C. Elman and Gene H. Golub. Line iterative methods for cyclically reduced nonselfadjoint elliptic problems. In TSACAMC '90 [468], pages 457–466. LCCN ??

Ferng:1990:ALM

[173] W. R. Ferng, G. H. Golub, and R. J. Plemmons. Adaptive Lanczos methods for recursive condition estimation. *Proceedings of the SPIE — The International Society for Optical Engineering*, 1348:326–337, ???? 1990. CODEN PSISDG. ISSN 0277-786X (print), 1996-756X (electronic).

Gander:1990:SLE

[174] Walter Gander, G. H. Golub, and Dominik Gruntz. Solving linear equations by extrapolation. In Kowalik [471], pages 279–293. ISBN 0-387-52691-9 (New York), 3-540-52691-9 (Berlin). LCCN QA76.5 .N344 1989.

Golub:1990:DVK

[175] Gene Golub, Bo Kågström, Axel Ruhe, and Paul Van Dooren. Dedication to Vera N. Kublanovskaya on her 70th birthday. *SIAM Journal on Matrix Analysis and Applications*, 11(4):vii–ix, October 1990. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:1990:IML

[176] Gene H. Golub and John E. de Pillis. Toward an effective two-parameter SOR method. In Kincaid and Hayes [470], pages 107–119. ISBN 0-12-407475-8. LCCN QA432 .I84 1990.

Golub:1990:MMI

[177] Gene H. Golub and Martin H. Gutknecht. Modified moments for indefinite weight functions. *Numerische Mathematik*, 57(6/7):607–624, July 1990. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Paper presented at the Conference on Approximation Theory and Numerical Linear Algebra, 30 March – 1 April, 1989, Kent, Ohio.

Golub:1990:PRJ

[178] Gene Golub. Prologue. reflections on Jim Wilkinson. In Cox and Hammarling

[469], pages 1–5. ISBN 0-19-853564-3. LCCN QA297 .R435 1990. US$75.00. Based on papers from a conference in honour of the late James Hardy Wilkinson (died Sunday 5th October 1986) held at National Physical Laboratory, Teddington, Middlesex, UK, 8th–10th July 1987.

Berry:1991:ELS

[179] Michael Berry and Gene Golub. Estimating the largest singular values of large sparse matrices via modified moments. *Numerical Algorithms*, 1 (4):353–374 (or 353–373??), November 1991. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from `math.liu.se` in `pub/references`.

Boley:1991:MNL

[180] D. Boley and G. H. Golub. A modified non-symmetric Lanczos algorithm and applications. In Vaccaro [474], pages 189–196. ISBN 0-444-88896-9. LCCN TK5102.5.S93 1991.

Boley:1991:NLA

[181] Daniel Boley and Gene Golub. The nonsymmetric Lanczos algorithm and controllability. *Systems and Control Letters*, 16(2):97–105, February 1991. CODEN SCLEDC. ISSN 0167-6911 (print), 1872-7956 (electronic).

Boley:1991:NLF

[182] Daniel L. Boley, Sylvan Elhay, Gene H. Golub, and Martin H. Gutknecht. Nonsymmetric Lanczos and finding orthogonal polynomials associated with indefinite weights. *Numerical Algorithms*, 1 (1):21–43, ???? 1991. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

DeMoor:1991:RSV

[183] Bart L. R. De Moor and Gene H. Golub. The restricted singular value decomposition: Properties and applications. *SIAM Journal on Matrix Analysis and Applications*, 12(3):401–425, July 1991. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Elhay:1991:UDOa

[184] Sylvan Elhay, G. H. Golub, and Jaroslav Kautský. Updating and downdating of orthogonal polynomials with data fitting applications. In Golub and Van Dooren [473], pages 149–172. ISBN 0-387-52300-6 (New York), 3-540-52300-6 (Berlin). LCCN QA184 .N39 1988.

Elhay:1991:UDOb

[185] Sylvan Elhay, Gene H. Golub, and Jaroslav Kautský. Updating and downdating of orthogonal polynomials with data fitting applications. *SIAM Journal on Matrix Analysis and Applications*, 12 (2):327–353, April 1991. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Elman:1991:IMC

[186] Howard C. Elman and Gene H. Golub. Iterative methods for cyclically reduced nonselfadjoint linear systems. II. *Mathematics of Computation*, 56(193):215–242, January 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Ferng:1991:ALM

[187] William R. Ferng, Gene H. Golub, and Robert J. Plemmons. Adaptive Lanczos methods for recursive condition estimation. *Numerical Algorithms*, 1(1): 1–20, ???? 1991. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Fischer:1991:GPW

[188] Bernd Fischer and Gene H. Golub. On generating polynomials which are orthogonal over several intervals. *Mathematics of Computation*, 56(194):711–730, April 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2008403`.

Freund:1991:ISLa

[189] Roland W. Freund, Gene H. Golub, and Noël M. Nachtigal. Iterative solution of linear systems. Technical Report NA-91-05, Computer Science Department, Stanford University, Stanford, CA, USA, ???? 1991.

Gander:1991:CEP

[190] Walter Gander, Gene H. Golub, and Urs von Matt. A constrained eigenvalue problem. In Golub and Van Dooren [473], pages 677–686. ISBN 0-387-52300-6 (New York), 3-540-52300-6 (Berlin). LCCN QA184 .N39 1988.

Golub:1991:DJW

[191] G. Golub and B. Parlett. Dedication to J. Wallace Givens. *SIAM Journal on Matrix Analysis and Applications*, 12(1): U1, January 1991. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:1991:HMN

[192] Gene H. Golub. A history of modern numerical linear algebra. *Mitteilungen der Mathematischen Gesellschaft in Hamburg*, 12(4):949–960, 1991/1992. CODEN MNGBAK. ISSN 0340-4358. Mathematische Wissenschaften gestern und heute. 300 Jahre Mathematische Gesellschaft in Hamburg, Teil 4 (Hamburg, 1990).

Golub:1991:IMC

[193] G. H. Golub and R. S. Tuminaro. Iterative methods for cyclically reduced non-self-adjoint linear systems. In Anonymous [472], pages 7–8. ISBN 4-87378-284-8. LCCN QA76.88.I1991.

Golub:1991:QCL

[194] Gene H. Golub and Urs von Matt. Quadratically constrained least squares and quadratic problems. *Numerische Mathematik*, 59(6):561–580, September 1991. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

VanHuffel:1991:TLS

[195] Sabine Van Huffel and Joos Vandewalle. *The total least squares problem. Computational aspects and analysis*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1991. ISBN 0-89871-275-0. xiv + 300 pp. LCCN QA275.H84 1991. Foreword by Gene H. Golub.

Arbenz:1992:LAS

[196] Peter Arbenz and Gene H. Golub. *QR*-like algorithms for symmetric arrow matrices. *SIAM Journal on Matrix Analysis and Applications*, 13(2):655–658, April 1992. CODEN SJMAEL.

ISSN 0895-4798 (print), 1095-7162 (electronic).

Bojanczyk:1992:PSD

[197] A. Bojanczyk, G. Golub, and P. Van Dooren. The periodic Schur decomposition: algorithms and applications. *Proceedings of the SPIE — The International Society for Optical Engineering*, 1770:31–42, ???? 1992. CODEN PSISDG. ISSN 0277-786X (print), 1996-756X (electronic).

Boley:1992:AFT

[198] Daniel L. Boley, Richard P. Brent, Gene H. Golub, and Franklin T. Luk. Algorithmic fault tolerance using the Lanczos method. *SIAM Journal on Matrix Analysis and Applications*, 13(1):312–332, January 1992. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Carey:1992:NAS

[199] Cheryl Carey, Hsin-Chu Chen, G. H. Golub, and Ahmed Sameh. A new approach for solving symmetric eigenvalue problems. *Computing Systems in Engineering*, 3(6):671–679, December 1992. CODEN COSEEO. ISSN 0956-0521 (print), 1873-6211 (electronic).

Elhay:1992:JMS

[200] Sylvan Elhay, Gene H. Golub, and Jaroslav Kautský. Jacobi matrices for sums of weight functions. *BIT*, 32 (1):143–166, 1992. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Elman:1992:LIM

[201] Howard C. Elman and Gene H. Golub. Line iterative methods for cyclically reduced discrete convection-diffusion problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):339–363, January 1992. CODEN SIJCD4. ISSN 0196-5204.

Fischer:1992:HGU

[202] Bernd Fischer and Gene H. Golub. How to generate unknown orthogonal polynomials out of known orthogonal polynomials. *Journal of Computational and Applied Mathematics*, 43(1–2):99–115, November 25, 1992. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Freund:1992:ISL

[203] Roland W. Freund, Gene H. Golub, and Noël M. Nachtigal. Iterative solution of linear systems. *Acta Numerica*, 1:57–100, 1992. CODEN ANUMFU. ISBN 0-521-41026-6. ISSN 0962-4929 (print), 1474-0508 (electronic).

Golub:1992:CCM

[204] Gene H. Golub and Hongyuan Zha. The canonical correlations of matrix pairs and their numerical computation. Technical Report CS-92-21, Pennsylvania State University, Dept. of Computer Science, University Park, PA, USA, ???? 1992. 21 pp.

Golub:1992:DBT

[205] G. H. Golub, B. Kågström, and Paul Van Dooren. Direct block tridiagonalization of single-input single-output systems. *Systems and Control Letters*, 18 (2):109–120, February 1992. CODEN SCLEDC. ISSN 0167-6911 (print), 1872-7956 (electronic).

Golub:1992:SCD

[206] Gene H. Golub and James M. Ortega. *Scientific Computing and Differential Equations: An Introduction to Numerical Methods*. Academic Press, New York, NY, USA, second edition, 1992. ISBN 0-12-289255-0. xi + 337 pp. LCCN QA371 .G62 1992. Prepared with LaTeX.

Manteuffel:1992:ISS

[207] Thomas A. Manteuffel and Gene H. Golub. Introduction to the special section on iterative methods in numerical linear algebra. *SIAM Journal on Matrix Analysis and Applications*, 13(3): 765–766, July 1992. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Calvetti:1993:GQA

[208] D. Calvetti, G. H. Golub, and L. Reichel. Gaussian quadrature applied to adaptive Chebyshev iteration. In Golub et al. [476], page ?? ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. DM98.00. Papers from the IMA Workshop on Iterative Methods for Sparse and Structured Problems, held in Minneapolis, Minn., Feb. 24–Mar. 1, 1992.

Chan:1993:XHS

[209] T. F. Chan and G. H. Golub. The XII Householder symposium on numerical algebra: Submitted abstracts. CAM Report 9–12, Department of Mathematics, University of California, Los Angeles, Los Angeles, CA, USA, ???? 1993.

Fischer:1993:ECP

[210] Bernd Fischer and G. H. Golub. On the error computation for polynomial based iteration methods. In Golub et al. [476], pages 59–67. ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. DM98.00. Papers from the IMA Workshop on Iterative Methods for Sparse and Structured Problems, held in Minneapolis, Minn., Feb. 24–Mar. 1, 1992.

Freund:1993:RAL

[211] Roland W. Freund, Gene H. Golub, and Noël M. Nachtigal. Recent advances in Lanczos-based iterative methods for nonsymmetric linear systems. In Hussaini et al. [477], pages 137–162. ISBN 0-387-94014-6 (New York), 3-540-94014-6 (Berlin). LCCN QA911 .A555 1993.

Golub:1993:PAC

[212] G. H. Golub and H. Zha. Perturbation analysis of the canonical correlations of matrix pairs. Technical Report CS-93-02, Department of Computer Science, Pennsylvania State University, ??, ???? 1993.

Golub:1993:SCI

[213] Gene H. (Gene Howard) Golub and James M. Ortega. *Scientific Computing: An Introduction with Parallel Computing*. Academic Press, New York, NY, USA, 1993. ISBN 0-12-289253-4. x + 442 pp. LCCN QA76.58 .G64 1993. URL `http://www.jstor.org/stable/2153127; http://www.loc.gov/catdir/description/els032/93009408.html; http://www.loc.gov/catdir/toc/els032/93009408.html`.

Hu:1993:FAU

[214] G. Hu, H. Zha, G. Golub, and T. Kailath. Fast algorithms for updating signal subspaces. Technical Report

CS-93-01, Department of Computer Science, Pennsylvania State University, ??, ???? 1993.

Talwar:1993:RNA

[215] S. Talwar, A. Paulraj, and G. H. Golub. A robust numerical approach for array calibration. In IEEE [478], pages 316–319 (vol. 4). ISBN 0-7803-0946-4. LCCN TK 7882 S65 I16 1993. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=319658`. Five volumes.. IEEE Catalog No. 92CH3252-4.

Calvetti:1994:ACI

[216] D. Calvetti, G. H. Golub, and L. Reichel. An adaptive Chebyshev iterative method for nonsymmetric linear systems based on modified moments. *Numerische Mathematik*, 67 (1):21–40, February 1994. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/4067001/40670021.htm`; `http://science.springer.de/nmee/bibs/4067001/40670021.htm`.

Calvetti:1994:GQA

[217] D. Calvetti, G. H. Golub, and L. Reichel. Gaussian quadrature applied to adaptive Chebyshev iteration. In Golub et al. [482], pages 31–44. ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. URL `http://zbmath.org/?q=an:0790.00015`.

Carey:1994:LBM

[218] Cheryl M. M. Carey, Gene H. Golub, and Kincho H. Law. A Lanczos-based method for structural dynamic reanalysis problems. *International Journal for Numerical Methods in Engineering*, 37 (16):2857–2883, August 30, 1994. CODEN IJNMBH. ISSN 0029-5981 (print), 1097-0207 (electronic).

Dubrulle:1994:MQI

[219] Augustin A. Dubrulle and G. H. Golub. A multishift QR iteration without computation of the shifts. *Numerical Algorithms*, 7(2/4):173–181, July 1994. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Elman:1994:CLI

[220] Howard C. Elman, Gene H. Golub, and Gerhard Starke. On the convergence of line iterative methods for cyclically reduced non-symmetrizable linear systems. *Numerische Mathematik*, 67(2):177–190, March 1994. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.de/link/service/journals/00211/bibs/4067002/40670177.htm`; `http://science.springer.de/nmee/bibs/4067002/40670177.htm`.

Elman:1994:IPU

[221] Howard C. Elman and Gene H. Golub. Inexact and preconditioned Uzawa algorithms for saddle point problems. *SIAM Journal on Numerical Analysis*, 31(6): 1645–1661, December 1994. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `http://www.jstor.org/stable/2158371`.

Ernst:1994:DDA

[222] Oliver Ernst and Gene H. Golub. A domain decomposition approach to solving the Helmholtz equation with a radiation boundary condition. In Quarteroni et al. [484], pages 177–192. ISBN 0-8218-

5158-6, 0-8218-7748-8 (online). LCCN QA402.2 .I55 1992.

Fischer:1994:RAI

[223] Bernd Fischer and Gene H. Golub. On the error computation for polynomial based iteration methods. In Golub et al. [482], pages 59–67. ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. URL `http://zbmath.org/?q=an:0790.00015`.

Gander:1994:LCQ

[224] Walter Gander, Gene H. Golub, and Urs von Matt. Large constrained quadratic problems. In Brown et al. [480], pages 308–310. ISBN 0-89871-339-0. LCCN QC19.2 .C67 1993.

Gander:1994:LSF

[225] Walter Gander, Gene H. Golub, and Rolf Strebel. Least-squares fitting of circles and ellipses. *BIT*, 34 (4):558–578, December 1994. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit34.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=34&issue=4&spage=558`.

Golub:1994:MMQ

[226] G. H. Golub and Gérard Meurant. Matrices, moments and quadrature. In Griffiths and Watson [483], pages 105–156. ISBN 0-582-22568-X. ISSN 0269-3674. LCCN QA297 .D85 1993. Reprinted in [495].

Golub:1994:PAC

[227] Gene H. Golub and Hong Yuan Zha. Perturbation analysis of the canonical correlations of matrix pairs. *Linear Algebra and its Applications*, 210:3–28, 1994. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Xu:1994:FAU

[228] Guanghan Xu, Hongyuan Zha, Gene Golub, and Thomas Kailath. Fast algorithms for updating signal subspaces. *IEEE Transactions on Circuits and Systems. 2, Analog and Digital Signal Processing*, 41(8):537–549, August 1994. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=318942`.

Arbenz:1995:MSI

[229] Peter Arbenz and Gene H. Golub. Matrix shapes invariant under the symmetric QR algorithm. *Numerical Linear Algebra with Applications*, 2(2):87–93, ???? 1995. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Boley:1995:FPF

[230] Daniel L. Boley, Gene H. Golub, Samy R. Makar, Nirmal R. Saxena, and Elisabet J. McCluskey, Jr. Floating point fault tolerance with backward error assertions. *IEEE Transactions on Computers*, 44(2): 302–311, February 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=364541`.

Chu:1995:ROR

[231] Moody T. Chu, Robert E. Funderlic, and Gene H. Golub. A rank-one reduction formula and its applications to

matrix factorizations. *SIAM Review*, 37 (4):512–530, December 1995. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://www.jstor.org/stable/2132903`.

Golub:1995:CCM

[232] Gene H. Golub and Hong Yuan Zha. The canonical correlations of matrix pairs and their numerical computation. *The IMA volumes in mathematics and its applications*, 69(??):27–49, ???? 1995.

Golub:1995:EQF

[233] Gene H. Golub and Zdeněk Strakoš. Estimates in quadratic formulas. *Numerical Algorithms*, 8(2-4):241–268, January 1995. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Golub:1995:MCT

[234] Gene H. Golub. Matrix computation and the theory of moments. In Chatterji [481], pages 1440–1448. ISBN 3-7643-5153-5, 0-8176-5153-5. LCCN QA1 .I82 1994. Two volumes.

Golub:1995:WRD

[235] Gene H. Golub and James M. Ortega. *Wissenschaftliches Rechnen und Differentialgleichungen: Eine Einführung in die numerische Mathematik (German) [English: Scientific computing and differential equations: An introduction to numerical methods]*, volume 6 of *Berliner Studienreihe zur Mathematik [Berlin Study Series on Mathematics]*. Heldermann Verlag, Berlin, Germany, 1995. ISBN 3-88538-106-0. xii + 330 pp. LCCN ???? Translated from the 1992 English original by Heinz Dalkowski.

Lui:1995:HMN

[236] S. H. Lui and G. H. Golub. Homotopy method for the numerical solution of the eigenvalue problem of self-adjoint partial differential operators. *Numerical Algorithms*, 10(3-4):363–378, October 1995. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Bai:1996:SLS

[237] Zhaojun Bai, Mark Fahey, and Gene Golub. Some large-scale matrix computation problems. *Journal of Computational and Applied Mathematics*, 74(1–2):71–89, November 5, 1996. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Chan:1996:NPD

[238] Tony F. Chan, Gene H. Golub, and Pep Mulet. A nonlinear primal-dual method for total variation-based image restoration. In *ICAOS '96 (Paris, 1996)*, volume 219 of *Lecture Notes in Control and Inform. Sci.*, pages 241–252. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996.

Gander:1996:LSF

[239] Walter Gander, Gene H. Golub, and Rolf Strebel. Least-squares fitting of circles and ellipses. numerical analysis (louvain-la-neuve, 1995). *Bull. Belg. Math. Soc. Simon Stevin*, 3S:63–84, 1996.

Golub:1996:DDP

[240] Gene Golub, David Silvester, and Andy Wathen. Diagonal dominance and positive definiteness of upwind approximations for advection diffusion problems. In Griffiths and Watson [486], pages

125–131. ISBN 981-02-2719-1, 981-281-287-3 (e-book). LCCN QA297 .N827 1996.

Golub:1996:MC

[241] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*. Johns Hopkins Studies in the Mathematical Sciences. The Johns Hopkins University Press, Baltimore, MD, USA, third edition, 1996. ISBN 0-8018-5413-X (hardcover), 0-8018-5414-8 (paperback). xxvii + 694 pp. LCCN QA188 .G65 1996. URL `http://www.loc.gov/catdir/bios/jhu052/96014291.html; http://www.loc.gov/catdir/description/jhu051/96014291.html`.

Golub:1996:MCT

[242] Gene H. Golub. Matrix computation and the theory of moments. numerical analysis (louvain-la-neuve, 1995). *Bull. Belg. Math. Soc. Simon Stevin*, 3S:1–9, December 1996. URL `http://www.emis.de/journals/BBMS/Bulletin/sup962/golub.pdf; http://www.ulb.ac.be/assoc/bms/bbmstocpv.html`.

Golub:1996:SC

[243] Gene Golub and James M. Ortega. *Scientific computing: Eine Einführung in das wissenschaftliche Rechnen und Parallele Numerik (German) [An introduction to scientific computing and parallel numerics]*. Teubner, Stuttgart, Germany; Leipzig, Germany, 1996. ISBN 3-519-02969-3. 534 pp. URL `http://link.springer.com/openurl?genre=book\%26isbn=978-3-519-02969-4`. Translated from the 1993 English original [213] and with a foreword by Rolf Dieter Grigorieff and Hartmut Schwandt.

Golub:1996:SCD

[244] Gene Howard Golub and James M. Ortega. *Scientific Computing and Differential Equations: an Introduction to Numerical Methods*. Academic Press, New York, NY, USA, fourth edition, 1996. ISBN 0-12-289255-0. xi + 337 pp. LCCN QA371 1996. URL `http://www.gbv.de/dms/bowker/toc/9780122892554.pdf`.

Taubin:1996:OSS

[245] G. Taubin, T. Zhang, and G. Golub. Optimal surface smoothing as filter design. In Buxton and Cipolla [485], pages 283–292 (vol. 1). ISBN 3-540-61122-3 (vol. 1), 3-540-61123-1 (vol. 2). LCCN TA1634.E97 1996. Two volumes.

Varadhan:1996:ADS

[246] Sowmini Varadhan, Michael W. Berry, and Gene H. Golub. Approximating dominant singular triplets of large sparse matrices via modified moments. *Numerical Algorithms*, 13(1-2):123–152, ???? 1996. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Bai:1997:BTI

[247] Zhaojun Bai and Gene H. Golub. Bounds for the trace of the inverse and the determinant of symmetric positive matrices. the heritage of P. L. Chebyshev: a Festschrift in honor of the 70th birthday of T. J. Rivlin. *Annals of Numerical Mathematics*, 4(1-4):29–38, 1997. ISSN 1021-2655.

Bellman:1997:IMA

[248] Richard Bellman. *Introduction to matrix analysis*, volume 19 of *Classics in Ap-*

plied Mathematics. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1997. ISBN 0-89871-399-4. xxviii + 403 pp. LCCN QA188 .B445 1997. Reprint of the second (1970) edition, with a foreword by Gene Golub.

Chandrasekaran:1997:BFP

[249] S. Chandrasekaran, Gene H. Golub, Ming Gu, and Ali H. Sayed. Best-fit parameter estimation for a bounded errors-in-variables model. In *Proceedings of the 1997 American Control Conference, 1997*, volume 1, pages 166–170. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=611778`.

Chandrasekaran:1997:EAL

[250] Shivkumar Chandrasekaran, Ming Gu, Gene H. Golub, and Ali H. Sayed. Efficient algorithms for least squares type problems with bounded uncertainties. In Van Huffel [491], pages 171–180. ISBN 0-89871-393-5. LCCN QA275 .R4 1997.

Chandrasekaran:1997:PEP

[251] Shivkumar Chandrasekaran, Gene H. Golub, Ming Gu, and Ali H. Sayed. Parameter estimation in the presence of bounded modeling errors. *IEEE Signal Processing Letters*, 4(7):195–197, ???? 1997. CODEN IPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=596884`.

Chandrasekaran:1997:WCP

[252] S. Chandrasekaran, Gene H. Golub, Ming Gu, and Ali H. Sayed. Worst-case parameter estimation with bounded model uncertainties. In Naim A. Kheir, editor, *Proceedings of the 1997 American Control Conference, 1997. Albuquerque Convention Center, Albuquerque, New Mexico, June 4–June 6, 1997*, volume 1, pages 171–175 (vol. 1). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-7803-3832-4 (softcover), 0-7803-3833-2 (hardcover), 0-7803-3834-0 (microfiche), 0-7803-3835-9 (CD-ROM). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=611779`.

Chu:1997:VFG

[253] Moody T. Chu, Robert E. Funderlic, and Gene H. Golub. On a variational formulation of the generalized singular value decomposition. *SIAM Journal on Matrix Analysis and Applications*, 18(4):1082–1092, October 1997. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/28707`.

Fierro:1997:RTT

[254] R. D. Fierro, G. H. Golub, P. C. Hansen, and D. P. O'Leary. Regularization by truncated total least squares. *SIAM Journal on Scientific Computing*, 18 (4):1223–1241, ???? 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Golub:1997:CSI

[255] Gene H. Golub and Henk A. van der Vorst. Closer to the solution: Iterative linear solvers. In Duff and Watson [489], pages 63–92. ISBN 0-19-850014-9. LCCN QA297.S775 1997. URL

https://global.oup.com/academic/product/the-state-of-the-art-in-numerical-analysis-9780198500148. Based on the proceedings of a conference on the state of the art in numerical analysis. Organized by the Institute of Mathematics and Its Applications and held at York University in April 1996.

Golub:1997:GCV

[256] Gene H. Golub and Urs von Matt. Generalized cross-validation for large-scale problems. *Journal of Computational and Graphical Statistics*, 6(1): 1–34, March 1997. CODEN ???? ISSN 1061-8600 (print), 1537-2715 (electronic). URL http://www.jstor.org/stable/1390722.

Golub:1997:MMQa

[257] Gene H. Golub. Matrices, moments and quadrature. In Chan et al. [488], pages 45–57. ISBN 981-3083-08-5 (paperback). LCCN QA297.8 .I835 1997.

Golub:1997:MMQb

[258] G. H. Golub and G. Meurant. Matrices, moments and quadrature. II. How to compute the norm of the error in iterative methods. *BIT Numerical Mathematics*, 37(3):687–705, September 1997. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.mai.liu.se/BIT/contents/bit37.html; http://www.springerlink.com/content/r44380210547348h/. Direct methods, linear algebra in optimization, iterative methods (Toulouse, 1995/1996).

Golub:1997:TRL

[259] Gene H. Golub and Urs von Matt. Tikhonov regularization for large scale problems. In Golub et al. [490], pages 3–26. ISBN 981-3083-60-3 (paperback). LCCN QA75.5 .W626 1997. URL http://www-sccm.stanford.edu/pub/sccm/sccm97-03.ps.gz.

Petzold:1997:DCW

[260] L. R. Petzold, R. D. Skeel, U. Ascher, K. Burrage, S. L. Campbell, G. H. Golub, E. Hairer, J. M. Hyman, C. Lubich, R. D. Russell, J. M. SanzSerna, and A. Stuart. Dedication to C. William Gear on the occasion of his 60th birthday. *SIAM Journal on Scientific Computing*, 18(1):vii–ix, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

VanderVorst:1997:YOS

[261] Henk A. van der Vorst and Gene H. Golub. 150 years old and still alive: Eigenproblems. In Duff and Watson [489], pages 93–120. ISBN 0-19-850014-9. LCCN QA297.S775 1997. URL https://global.oup.com/academic/product/the-state-of-the-art-in-numerical-analysis-9780198500148. Based on the proceedings of a conference on the state of the art in numerical analysis. Organized by the Institute of Mathematics and Its Applications and held at York University in April 1996.

Andersson:1998:SBE

[262] Lars-Erik Andersson, Tommy Elfving, and Gene H. Golub. Solution of biharmonic equations with application to radar imaging. *Journal of Computational and Applied Mathematics*, 94(2):153–180, August 3, 1998. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http:

//www.sciencedirect.com/science/article/pii/S037704279800079X.

Baglama:1998:APG

[263] J. Baglama, D. Calvetti, G. H. Golub, and L. Reichel. Adaptively preconditioned GMRES algorithms. *SIAM Journal on Scientific Computing*, 20(1):243–269, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/30525.

Chandrasekaran:1998:PEP

[264] S. Chandrasekaran, G. H. Golub, M. Gu, and A. H. Sayed. Parameter estimation in the presence of bounded data uncertainties. *SIAM Journal on Matrix Analysis and Applications*, 19(1):235–252, January 1998. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/30167.

Chu:1998:RMS

[265] M. T. Chu, R. E. Funderlic, and G. H. Golub. Rank modifications of semidefinite matrices associated with a secant update formula. *SIAM Journal on Matrix Analysis and Applications*, 20(2):428–436, October 1998. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Giladi:1998:IOI

[266] Eldar Giladi, Gene H. Golub, and Joseph B. Keller. Inner and outer iterations for the Chebyshev algorithm. *SIAM Journal on Numerical Analysis*, 35(1):300–319, February 1998. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org:80/sam-bin/dbq/toclist/SINUM/35/1; http://www.jstor.org/stable/2587104.

Golub:1998:EDN

[267] Gene H. Golub. Early days of numerical computing at Illinois on the ILLIAC. Talk at conference *Numerical Analysis and Computers—50 Years of Progress.*, June 16, 1998. URL https://www.siam.org/news/news.php?id=868.

Golub:1998:FPS

[268] Gene H. Golub, Lan Chieh Huang, Horst Simon, and Wei-Pai Tang. A fast Poisson solver for the finite difference solution of the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 19(5):1606–1624, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/28529.

Golub:1998:IIS

[269] Gene H. Golub and Andrew J. Wathen. An iteration for indefinite systems and its application to the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 19(2):530–539, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/29382.

Zhang:1998:EPG

[270] T. Zhang, G. H. Golub, and K. H. Law. Eigenvalue perturbation and generalized Krylov subspace method. *Applied Numerical Mathematics*, 27(2):185–202, 1998. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Zhang:1998:HMP

[271] T. Zhang, K. H. Law, and G. H. Golub. On the homotopy method for perturbed symmetric generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 19(5):1625–1645, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29975`.

Bai:1999:SUE

[272] Z. Bai and G. H. Golub. Some unusual eigenvalue problems (invited talk). *Lecture Notes in Computer Science*, 1573: 4–19, 1999. CODEN LNCSD9. ISBN 3-540-66228-6. ISSN 0302-9743 (print), 1611-3349 (electronic).

Benzi:1999:BEM

[273] Michele Benzi and Gene H. Golub. Bounds for the entries of matrix functions with applications to preconditioning. *BIT Numerical Mathematics*, 39(3): 417–438, September 1999. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=39&issue=3&spage=417`.

Calvetti:1999:CEB

[274] D. Calvetti, G. H. Golub, and L. Reichel. A computable error bound for matrix functionals. *Journal of Computational and Applied Mathematics*, 103(2):301–306, March 31, 1999. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042798002672`.

Calvetti:1999:ECL

[275] D. Calvetti, G. H. Golub, and L. Reichel. Estimation of the L-curve via Lanczos bidiagonalization. *BIT Numerical Mathematics*, 39(4):603–619, December 1999. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=39&issue=4&spage=603`.

Chan:1999:NPD

[276] Tony F. Chan, Gene H. Golub, and Pep Mulet. A nonlinear primal-dual method for total variation-based image restoration. *SIAM Journal on Scientific Computing*, 20(6):1964–1977, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/29976`.

Chandrasekaran:1999:EAB

[277] S. Chandrasekaran, G. H. Golub, M. Gu, and A. H. Sayed. An efficient algorithm for a bounded errors-in-variables model. *SIAM Journal on Matrix Analysis and Applications*, 20(4):839–859, October 1999. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/30467`.

Chu:1999:RMS

[278] Moody T. Chu, R. E. Funderlic, and Gene H. Golub. Rank modifications of semidefinite matrices associated with a secant update formula. *SIAM Journal on Matrix Analysis and Applications*, 20(2):428–436, April 1999. CODEN SJMAEL.

ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/30602`.

Elhay:1999:SEE

[279] S. Elhay, G. M. L. Gladwell, G. H. Golub, and Y. M. Ram. On some eigenvector-eigenvalue relations. *SIAM Journal on Matrix Analysis and Applications*, 20(3):563–574, July 1999. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/31072`.

Golub:1999:IPC

[280] Gene H. Golub and Qiang Ye. Inexact preconditioned conjugate gradient method with inner-outer iteration. *SIAM Journal on Scientific Computing*, 21(4):1305–1320, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/32341`.

Golub:1999:LSS

[281] Gene H. Golub, Zhenyue Zhang, and Hongyuan Zha. Large sparse symmetric eigenvalue problems with homogeneous linear constraints: the Lanczos process with inner-outer iterations. In *Advances in numerical mathematics: Proceedings of the Fourth Japan-China Joint Seminar on Numerical Mathematics (Chiba, 1998)*, volume 12 of *GAKUTO Internat. Ser. Math. Sci. Appl.*, pages 21–34. Gakkōtosho, Tokyo, Japan, 1999.

Golub:1999:SNM

[282] Gene H. Golub, Peyman Milanfar, and James Varah. A stable numerical method for inverting shape from moments. *SIAM Journal on Scientific Computing*, 21(4):1222–1243, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/32831`.

Golub:1999:TRT

[283] Gene H. Golub, Per Christian Hansen, and Dianne P. O'Leary. Tikhonov regularization and total least squares. *SIAM Journal on Matrix Analysis and Applications*, 21(1):185–194, 1999. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/32643`.

Nguyen:1999:BRS

[284] Nhat Nguyen, Gene H. Golub, and Peyman Milanfar. Blind restoration/ superresolution with generalized cross-validation using Gauss-type quadrature rules. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1257–1261. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=831908`.

Nguyen:1999:PRI

[285] Nhat Nguyen, Gene H. Golub, and Peyman Milanfar. Preconditioners for regularized image superresolution. In *1999 IEEE International Conference on Acoustics, Speech, and Signal Processing, 1999. Proceedings*, volume 6, pages 3249–3252. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA,

1999. URL http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=757534.

Zhang:1999:SIM

[286] T. Zhang, G. H. Golub, and K. H. Law. Subspace iterative methods for eigenvalue problems. *Linear Algebra and its Applications*, 294(1–3):239–258, June 15, 1999. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.elsevier.com/cas/tree/store/laa/sub/1999/294/1-3/6421.pdf; http://www.elsevier.com/cgi-bin/cas/tree/store/laa/cas_sub/browse/browse.cgi?year=1999&volume=294&issue=1-3&aid=6421.

Calvetti:2000:CGK

[287] D. Calvetti, G. H. Golub, W. B. Gragg, and L. Reichel. Computation of Gauss–Kronrod quadrature rules. *Mathematics of Computation*, 69(231):1035–1052, July 2000. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journal-getitem?pii=S0025-5718-00-01174-1; http://www.ams.org/mcom/2000-69-231/S0025-5718-00-01174-1/S0025-5718-00-01174-1.dvi; http://www.ams.org/mcom/2000-69-231/S0025-5718-00-01174-1/S0025-5718-00-01174-1.pdf; http://www.ams.org/mcom/2000-69-231/S0025-5718-00-01174-1/S0025-5718-00-01174-1.ps; http://www.ams.org/mcom/2000-69-231/S0025-5718-00-01174-1/S0025-5718-00-01174-1.tex. Reprinted in [495].

Golub:2000:CSG

[288] G. Golub, K. Solna, and P. Van Dooren. Computing the SVD of a general matrix product/quotient. *SIAM Journal on Matrix Analysis and Applications*, 22 (1):1–19, June 2000. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:2000:ECC

[289] Gene H. Golub and Henk A. van der Vorst. Eigenvalue computation in the 20th century. *Journal of Computational and Applied Mathematics*, 123 (1–2):35–65, November 1, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042700004131. Numerical analysis 2000, Vol. III. Linear algebra.

Golub:2000:III

[290] Gene H. Golub and Qiang Ye. Inexact inverse iteration for generalized eigenvalue problems. *BIT Numerical Mathematics*, 40(4):671–684, December 2000. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=40&issue=4&spage=671.

Golub:2000:LSS

[291] Gene H. Golub, Zhenyue Zhang, and Hongyuan Zha. Large sparse symmetric eigenvalue problems with homogeneous linear constraints: the Lanczos process with inner-outer iterations. *Linear Algebra and its Applications*, 309(1–3):289–306, April 15, 2000. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.elsevier.nl/gej-ng/10/30/19/126/25/39/abstract.html; http:/

/www.elsevier.nl/gej-ng/10/30/19/126/25/39/article.pdf.

Golub:2000:PMS

[292] Gene H. Golub and Denis Vanderstraeten. On the preconditioning of matrices with skew-symmetric splittings. *Numerical Algorithms*, 25(1–4):223–239, 2000. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). Mathematical journey through analysis, matrix theory and scientific computation (Kent, OH, 1999).

Murphy:2000:NPI

[293] Malcolm F. Murphy, Gene H. Golub, and Andrew J. Wathen. A note on preconditioning for indefinite linear systems. *SIAM Journal on Scientific Computing*, 21(6):1969–1972, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/35515.

Engquist:2001:NAC

[294] Björn Engquist and Gene Golub. From numerical analysis to computational science. In Engquist and Schmid [493], pages 433–448. ISBN 3-540-66913-2. LCCN QA7 .M32423 2001.

Golub:2001:CSG

[295] Gene Golub, Knut Solna, and Paul Van Dooren. Computing the SVD of a general matrix product/quotient. *SIAM Journal on Matrix Analysis and Applications*, 22(1):1–19, January 2001. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/32557.

Golub:2001:PBS

[296] Gene H. Golub, Ahmed H. Sameh, and Vivek Sarin. A parallel balance scheme for banded linear systems. *Numerical Linear Algebra with Applications*, 8(5):297–316, ???? 2001. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL http://www3.interscience.wiley.com/cgi-bin/abstract/82004028/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=82004028&PLACEBO=IE.pdf.

Golub:2001:SAE

[297] G. H. Golub and H. Melbö. A stochastic approach to error estimates for iterative linear solvers: Part 1. *BIT Numerical Mathematics*, 41(5):977–985, December 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=5&spage=977.

Golub:2001:SLM

[298] Gene H. Golub, X. Wu, and Jin-Yun Yuan. SOR-like methods for augmented systems. *BIT Numerical Mathematics*, 41(1):71–85, January 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=1&spage=71.

Nguyen:2001:CES

[299] Nhat Nguyen, Peyman Milanfar, and Gene H. Golub. A computationally efficient superresolution image reconstruction algorithm. *IEEE Transactions on*

Image Processing, 10(4):573–583, ???? 2001. CODEN IIPRE4. ISSN 1057-7149 (print), 1941-0042 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=913592`.

Nguyen:2001:EGC

[300] Nhat Nguyen, Peyman Milanfar, and Gene H. Golub. Efficient generalized cross-validation with applications to parametric image restoration and resolution enhancement. *IEEE Transactions on Image Processing*, 10(9): 1299–1308, ???? 2001. CODEN IIPRE4. ISSN 1057-7149 (print), 1941-0042 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=941854`.

Zhang:2001:ROA

[301] Tong Zhang and Gene H. Golub. Rank-one approximation to high order tensors. *SIAM Journal on Matrix Analysis and Applications*, 23(2): 534–550, 2001. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/35204`.

Chu:2002:SIE

[302] Moody T. Chu and Gene H. Golub. Structured inverse eigenvalue problems. *Acta Numerica*, 11:1–71, 2002. CODEN ANUMFU. ISBN 0-521-81876-1. ISSN 0962-4929 (print), 1474-0508 (electronic).

Concus:2002:OOP

[303] Paul Concus, Gene H. Golub, and Yong Sun. Object-oriented parallel algorithms for computing three-dimensional isopycnal flow. *International Journal for Numerical Methods in Fluids*, 39 (7):585–605, 2002. CODEN IJNFDW. ISSN 0271-2091 (print), 1097-0363 (electronic).

Elad:2002:SMI

[304] Michael Elad, Peyman Milanfar, and Gene H. Golub. Shape from moments as an inverse problem. In *Conference Record of the Thirty-Sixth Asilomar Conference on Signals, Systems and Computers, 2002*, volume 1, pages 921–925. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1197311`.

Golub:2002:BOT

[305] Gene H. Golub, Chen Greif, and James M. Varah. Block orderings for tensor-product grids in two and three dimensions. *Numerical Algorithms*, 30 (2):93–111, 2002. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Golub:2002:IFP

[306] Gene H. Golub and Qiang Ye. An inverse free preconditioned Krylov subspace method for symmetric generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 24(1):312–334, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/38257`.

Golub:2002:STD

[307] Gene H. Golub and Jin-Yun Yuan. Symmetric-triangular decomposition and its applications Part I: Theorems and algorithms. *BIT Numerical Mathematics*, 42(4):814–822, De-

cember 2002. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=42&issue=4&spage=814`.

Bai:2003:HSH

[308] Zhong-Zhi Bai, Gene H. Golub, and Michael K. Ng. Hermitian and skew-Hermitian splitting methods for non-Hermitian positive definite linear systems. *SIAM Journal on Matrix Analysis and Applications*, 24(3):603–626 (electronic), 2003. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). Reprinted in [495].

Benzi:2003:OHS

[309] Michele Benzi, Martin J. Gander, and Gene H. Golub. Optimization of the Hermitian and skew-Hermitian splitting iteration for saddle-point problems. *BIT Numerical Mathematics*, 43(5):881–900, December 2003. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=43&issue=5&spage=881`.

Elhay:2003:SML

[310] S. Elhay, G. H. Golub, and Y. M. Ram. The spectrum of a modified linear pencil. *Computers and Mathematics with Applications*, 46(8–9):1413–1426, October/November 2003. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S089812210390229X`.

Gander:2003:NOO

[311] M. J. Gander and G. H. Golub. A non-overlapping optimized Schwarz method which converges with arbitrarily weak dependence on h. In *Domain decomposition methods in science and engineering*, pages 281–288 (electronic). Natl. Auton. Univ. Mex., México, 2003.

Golub:2003:SBS

[312] Gene H. Golub and Chen Greif. On solving block-structured indefinite linear systems. *SIAM Journal on Scientific Computing*, 24(6):2076–2092 (electronic), 2003. CODEN SJOCE3. ISSN 1095-7197.

Golub:2003:SNL

[313] Gene Golub and Victor Pereyra. Separable nonlinear least squares: the variable projection method and its applications. *Inverse Problems*, 19(2):R1–R26, 2003. CODEN INPEEY. ISSN 0266-5611 (print), 1361-6420 (electronic).

Kamvar:2003:EBS

[314] S. Kamvar, T. Haveliwala, C. Manning, and G. Golub. Exploiting the block structure of the Web for computing PageRank. Technical Report 2003-17, Stanford InfoLab, Stanford University, Stanford, CA, USA, 2003.

Kamvar:2003:EMA

[315] Sepandar D. Kamvar, Taher H. Haveliwala, Christopher D. Manning, and Gene H. Golub. Extrapolation methods for accelerating PageRank computations. In ACM, editor, *Proceedings of the Twelfth International Conference on World Wide Web 2003, Budapest, Hungary, May 20–24, 2003*, pages 261–270.

ACM Press, New York, NY 10036, USA, 2003. ISBN 1-58113-680-3. URL http://dbpubs.stanford.edu:8090/pub/2003-16; http://www.stanford.edu/~sdkamvar/papers/extrapolation.pdf.

Orchard:2003:SRA

[316] Jeff Orchard, Chen Greif, Gene H. Golub, Bruce Bjornson, and M. Stella Atkins. Simultaneous registration and activation detection for fMRI. *IEEE Transactions on Medical Imaging*, 22 (11):1427–1435, ???? 2003. CODEN ITMID4. ISSN 0278-0062 (print), 1558-254X (electronic). URL http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1242345.

Tsaig:2003:OFL

[317] Yaakov Tsaig, Michael Elad, Gene H. Golub, and Peyman Milanfar. Optimal framework for low bit-rate block coders. In *2003 International Conference on Image Processing, 2003. ICIP 2003. Proceedings*, volume 2, pages II–219–II–222 (vol. 3). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. URL http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1246656.

Alter:2004:IAG

[318] Orly Alter and Gene H. Golub. Integrative analysis of genome-scale data by using pseudoinverse projection predicts novel correlation between DNA replication and RNA transcription. *Proceedings of the National Academy of Sciences of the United States of America*, 101(47):16577–16582, November 23, 2004. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL http://www.bme.utexas.edu/research/orly/pseudoinverse/; http://www.jstor.org/stable/3373867.

Alter:2004:NGS

[319] Orly Alter, Gene H. Golub, Patrick O. Brown, and David Botstein. Novel genome-scale correlation between DNA replication and RNA transcription during the cell cycle in yeast is predicted by data-driven models. In M. P. Deutscher, S. Black, P. E. Boehmer, G. D'Urso, T. Fletcher, F. Huijing, A. Marshall, B. Pulverer, B. Renault, J. D. Rosenblatt, J. M. Slingerland, and W. J. Whelan, editors, *Proceedings of the 2004 Miami Nature Biotechnology Winter Symposium on the Cell Cycle, Chromosomes and Cancer*, page ?? Miller School of Medicine, University of Miami, Miami, FL, USA, 2004. ISBN ???? LCCN ???? URL http://www.med.miami.edu/mnbws/documents/Alter-.pdf.

Bai:2004:PHS

[320] Zhong-Zhi Bai, Gene H. Golub, and Jian-Yu Pan. Preconditioned Hermitian and skew-Hermitian splitting methods for non-Hermitian positive semidefinite linear systems. *Numerische Mathematik*, 98(1):1–32, July 2004. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Benzi:2004:PGS

[321] Michele Benzi and Gene H. Golub. A preconditioner for generalized saddle point problems. *SIAM Journal on Matrix Analysis and Applications*, 26(1): 20–41 (electronic), 2004. CODEN SJMAEL. ISSN 1095-7162.

Elad:2004:SME

[322] Michael Elad, Peyman Milanfar, and Gene H. Golub. Shape from moments—an estimation theory perspective. *IEEE Transactions on Signal Processing*, 52 (7):1814–1829, 2004. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1306639`.

Holz:2004:SAM

[323] U. B. Holz, G. H. Golub, and K. H. Law. A subspace approximation method for the quadratic eigenvalue problem. *SIAM Journal on Matrix Analysis and Applications*, 26(2):498–521, ???? 2004. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Kamvar:2004:ACR

[324] Sepandar D. Kamvar, Taher H. Haveliwala, and Gene H. Golub. Adaptive computation of ranking. US Patent 7,028,029., August 23, 2004.

Kamvar:2004:AMC

[325] Sepandar Kamvar, Taher Haveliwala, and Gene Golub. Adaptive methods for the computation of PageRank. *Linear Algebra and its Applications*, 386(1):51–65, July 15, 2004. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Kim:2004:IMV

[326] Hyunsoo Kim, Gene H. Golub, and Haesun Park. Imputation of missing values in DNA microarray gene expression data. In *2004 IEEE Computational Systems Bioinformatics Conference, 2004. CSB 2004. Proceedings*, pages 572–573. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1332500`.

Livne:2004:SB

[327] Oren E. Livne and Gene H. Golub. Scaling by binormalization. *Numerical Algorithms*, 35(1):97–120, January 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/49/A/7/abstract.htm`.

Sima:2004:RTL

[328] Diana M. Sima, Sabine Van Huffel, and Gene H. Golub. Regularized total least squares based on quadratic eigenvalue problem solvers. *BIT*, 44(4):793–812, 2004. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Yuan:2004:SCD

[329] J. Y. Yuan, G. H. Golub, R. J. Plemmons, and W. A. G. Cecílio. Semiconjugate direction methods for real positive definite systems. *BIT*, 44 (1):189–207, 2004. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Alter:2005:RPC

[330] Orly Alter and Gene H. Golub. Reconstructing the pathways of a cellular system from genome-scale signals by using matrix and tensor computations. *Proceedings of the National Academy of Sciences of the United States of America*, 102(49):

17559–17564, December 6, 2005. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL `http://www.bme.utexas.edu/research/orly/network_decomposition/; http://www.jstor.org/stable/4152766; http://www.pnas.org/content/102/49/17559.full`.

Bai:2005:BTS

[331] Zhong-Zhi Bai, Gene H. Golub, Lin-Zhang Lu, and Jun-Feng Yin. Block triangular and skew-Hermitian splitting methods for positive-definite linear systems. *SIAM Journal on Scientific Computing*, 26(3):844–863, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/42811`.

Benzi:2005:NSS

[332] Michele Benzi, Gene H. Golub, and Jörg Liesen. Numerical solution of saddle point problems. *Acta Numerica*, 14:1–137, 2005. CODEN ANUMFU. ISBN 0-521-85807-0. ISSN 0962-4929 (print), 1474-0508 (electronic).

Bertaccini:2005:PHM

[333] Daniele Bertaccini, Gene H. Golub, Stefano Serra Capizzano, and Cristina Tablino Possio. Preconditioned HSS methods for the solution of non-Hermitian positive definite linear systems and applications to the discrete convection-diffusion equation. *Numerische Mathematik*, 99 (3):441–484, January 2005. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Boutry:2005:GEP

[334] Gregory Boutry, Michael Elad, Gene H. Golub, and Peyman Milanfar. The generalized eigenvalue problem for nonsquare pencils using a minimal perturbation approach. *SIAM Journal on Matrix Analysis and Applications*, 27(2): 582–601, April 2005. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/42879`.

Chu:2005:IEP

[335] Moody T. Chu and Gene H. Golub. *Inverse Eigenvalue Problems: Theory, Algorithms, and Applications*. Numerical Mathematics and Scientific Computation. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2005. ISBN 0-19-856664-6 (hardcover), 0-19-152422-0 (e-book), 0-19-171802-5. xvii + 387 pp. LCCN QA193 .C48 2005.

Cuyt:2005:MII

[336] Annie Cuyt, Gene Golub, Peyman Milanfar, and Brigitte Verdonk. Multidimensional integral inversion, with applications in shape reconstruction. *SIAM Journal on Scientific Computing*, 27 (3):1058–1070, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Golub:2005:AAB

[337] Gene H. Golub, Chen Greif, and James M. Varah. An algebraic analysis of block diagonal preconditioner for saddle point systems. *SIAM Journal on Matrix Analysis and Applications*, 27(3): 779–792, January 2005. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Holz:2005:SAM

[338] U. B. Holz, G. H. Golub, and K. H. Law. A subspace approximation method for the quadratic eigenvalue problem. *SIAM Journal on Matrix Analysis and Applications*, 26(2):498–521, April 2005. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/42337`.

Kim:2005:MVE

[339] Hyunsoo Kim, Gene H. Golub, and Haesun Park. Missing value estimation for DNA microarray gene expression data: local least squares imputation. *Bioinformatics*, 21(2):187–198, 2005. CODEN BOINFP. ISSN 1367-4803 (print), 1367-4811 (electronic). URL `http://bioinformatics.oxfordjournals.org/cgi/content/abstract/21/2/187; http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.3.9835&rep=rep1&type=pdf`. See correction [352].

Serra-Capizzano:2005:HDP

[340] Stefano Serra-Capizzano, Daniele Bertaccini, and Gene H. Golub. How to deduce a proper eigenvalue cluster from a proper singular value cluster in the nonnormal case. *SIAM Journal on Matrix Analysis and Applications*, 27(1):82–86, January 2005. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/60802`.

Tsaig:2005:VPN

[341] Y. Tsaig, M. Elad, P. Milanfar, and G. H. Golub. Variable projection for near-optimal filtering in low bit-rate block coders. *IEEE Transactions on Circuits and Systems for Video Technology*, 15(1):154–160, ???? 2005. CODEN ITCTEM. ISSN 1051-8215 (print), 1558-2205 (electronic).

Vandebril:2005:BSM

[342] R. Vandebril, M. Van Barel, G. Golub, and N. Mastronardi. A bibliography on semiseparable matrices. *Calcolo*, 42(3-4):249–270, 2005. CODEN CALOBK. ISSN 0008-0624 (print), 1126-5434 (electronic).

Alter:2006:SVD

[343] Orly Alter and Gene H. Golub. Singular value decomposition of genome-scale mRNA lengths distribution reveals asymmetry in RNA gel electrophoresis band broadening. *Proceedings of the National Academy of Sciences of the United States of America*, 103(32):11828–11833, August 8, 2006. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL `http://www.jstor.org/stable/30051625; http://www.pnas.org/content/103/32/11828.abstract`.

Bai:2006:CPP

[344] Zhong-Zhi Bai, Gene H. Golub, and Chi-Kwong Li. Convergence properties of preconditioned Hermitian and skew-Hermitian splitting methods for non-Hermitian positive semidefinite matrices. *Mathematics of Computation*, 76(257):287–298, ???? 2006. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bai:2006:OPH

[345] Zhong-Zhi Bai, Gene H. Golub, and Chi-Kwong Li. Optimal parameter in

Hermitian and skew-Hermitian splitting method for certain two-by-two block matrices. *SIAM Journal on Scientific Computing*, 28(2):583–603, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bartels:2006:SOL

[346] R. H. Bartels, G. H. Golub, and F. F. Samavati. Some observations on local least squares. *BIT Numerical Mathematics*, 46(3):455–477, September 2006. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Botchev:2006:CNP

[347] Mike A. Botchev and Gene H. Golub. A class of nonsymmetric preconditioners for saddle point problems. *SIAM Journal on Matrix Analysis and Applications*, 27(4):1125–1149, 2006. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Chu:2006:GEP

[348] Delin Chu and Gene H. Golub. On a generalized eigenvalue problem for nonsquare pencils. *SIAM Journal on Matrix Analysis and Applications*, 28 (3):770–787, 2006. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Comon:2006:GRD

[349] Pierre Comon, Bernard Mourrain, Lek-Heng H. Lim, and Gene H. Golub. Genericity and rank deficiency of high order symmetric tensors. In *2006 IEEE International Conference on Acoustics, Speech and Signal Processing, 2006. ICASSP 2006 Proceedings*, volume 3, pages III–125–III–128. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1660606`.

Golub:2006:ATA

[350] G. H. Golub and C. Greif. An Arnoldi-type algorithm for computing page rank. *BIT Numerical Mathematics*, 46(4):759–771, December 2006. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Golub:2006:CME

[351] Gene H. Golub and Li-Zhi Liao. Continuous methods for extreme and interior eigenvalue problems. *Linear Algebra and its Applications*, 415(1):31–51, May 1, 2006. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Kim:2006:CMV

[352] Hyunsoo Kim, Gene H. Golub, and Haesun Park. Correction: Missing value estimation for DNA microarray gene expression data: local least squares imputation. *Bioinformatics*, 22(11):1410–1411, June 1, 2006. CODEN BOINFP. ISSN 1367-4803 (print), 1367-4811 (electronic). See [339].

Vandebril:2006:SNS

[353] Raf Vandebril, Gene Golub, and Marc Van Barel. A small note on the scaling of symmetric positive definite semiseparable matrices. *Numerical Algorithms*, 41 (3):319–326, 2006. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Bai:2007:AHS

[354] Zhong-Zhi Bai and Gene H. Golub. Accelerated Hermitian and skew-Hermitian splitting iteration methods for saddle-point problems. *IMA Journal of Numerical Analysis*, 27(1):1–23, 2007. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Bai:2007:CPP

[355] Zhong-Zhi Bai, Gene H. Golub, and Chi-Kwong Li. Convergence properties of preconditioned Hermitian and skew-Hermitian splitting methods for non-Hermitian positive semidefinite matrices. *Mathematics of Computation*, 76 (257):287–298, 2007. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bai:2007:SOA

[356] Zhong-Zhi Bai, Gene H. Golub, and Michael K. Ng. On successive-overrelaxation acceleration of the Hermitian and skew-Hermitian splitting iterations. *Numerical Linear Algebra with Applications*, 14(4):319–335, 2007. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Beckermann:2007:NCG

[357] B. Beckermann, G. H. Golub, and G. Labahn. On the numerical condition of a generalized Hankel eigenvalue problem. *Numerische Mathematik*, 106(1):41–68, March 2007. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bertaccini:2007:SAP

[358] Daniele Bertaccini, Gene H. Golub, and Stefano Serra-Capizzano. Spectral analysis of a preconditioned iterative method for the convection-diffusion equation. *SIAM Journal on Matrix Analysis and Applications*, 29(1):260–278, 2007. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Gleich:2007:TRP

[359] David Gleich, Peter Glynn, Gene Golub, and Chen Greif. *Three results on the PageRank vector: eigenstructure, sensitivity, and the derivative*, page ???? Dagstuhl seminar proceedings 07071. International Begegnungs- und Forschungszentrum für Informatik, Wadern, Germany, 2007. LCCN ???? URL `http://drops.dagstuhl.de/opus/volltexte/2007/1061/pdf/07071.GleichDavid.Paper.1061`.

Golub:2007:HAC

[360] Gene H. Golub, Daniel Ruiz, and Ahmed Touhami. A hybrid approach combining Chebyshev filter and conjugate gradient for solving linear systems with multiple right-hand sides. *SIAM Journal on Matrix Analysis and Applications*, 29(3):774–795, 2007. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:2007:MC

[361] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*, volume 43 of *Texts and Readings in Mathematics*. Hindustan Book Agency, New Delhi, India, third edition, 2007. ISBN 81-85931-72-0. xxvii + 3 + 694 pp.

Golub:2007:WOR

[362] Gene H. Golub. Welcome and opening remarks. In Du et al. [496], page ?? ISBN ???? LCCN ????

Lee:2007:TSA

[363] Chris P. Lee, Gene H. Golub, and Stefanos A. Zenios. A two-stage algorithm for computing PageRank and multistage generalizations. *Internet Mathematics*, 4(4):299–327, 2007. CODEN ???? ISSN 1542-7951 (print), 1944-9488 (electronic). URL `http://projecteuclid.org/getRecord?id=euclid.im/1243430809`.

Mastronardi:2007:NLA

[364] Nicola Mastronardi, Gene H. Golub, Shivkumar Chandrasekaran, Marc Moonen, Paul Van Dooren, and Sabine Van Huffel. Numerical linear algebra in signal processing applications. *EURASIP Journal on Advances in Signal Processing*, pages Art. ID 26914, 3, 2007. ISSN 1687-6172 (print), 1687-6180 (electronic).

Omberg:2007:THO

[365] Larsson Omberg, Gene H. Golub, and Orly Alter. A tensor higher-order singular value decomposition for integrative analysis of DNA microarray data from different studies. *Proceedings of the National Academy of Sciences of the United States of America*, 104(47): 18371–18376, November 20, 2007. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL `http://www.jstor.org/stable/25450431; http://www.pnas.org/content/104/47/18371.full`.

Bai:2008:IHS

[366] Zhong-Zhi Bai, Gene H. Golub, and Michael K. Ng. On inexact Hermitian and skew-Hermitian splitting methods for non-Hermitian positive definite linear systems. *Linear Algebra and its Applications*, 428(2–3):413–440, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Chang:2008:TBP

[367] X.-W. Chang, G. H. Golub, and C. C. Paige. Towards a backward perturbation analysis for data least squares problems. *SIAM Journal on Matrix Analysis and Applications*, 30(4):1281–1301, ???? 2008. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Comon:2008:STS

[368] Pierre Comon, Gene Golub, Lek-Heng Lim, and Bernard Mourrain. Symmetric tensors and symmetric tensor rank. *SIAM Journal on Matrix Analysis and Applications*, 30(3):1254–1279, 2008. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Dongarra:2008:NNB

[369] Jack Dongarra, Gene H. Golub, Eric Grosse, Cleve Moler, and Keith Moore. Netlib and NA-Net: Building a scientific computing community. *IEEE Annals of the History of Computing*, 30(2):30–41, April/June 2008. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4544554`.

Gao:2008:CMS

[370] Xing-Bao Gao, Gene H. Golub, and Li-Zhi Liao. Continuous methods for symmetric generalized eigenvalue problems. *Linear Algebra and its Applications*, 428 (2–3):676–696, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Golub:2008:ASA

[371] Gene H. Golub, Martin Stoll, and Andy Wathen. Approximation of the scattering amplitude and linear systems. *Electronic Transactions on Numerical Analysis*, 31:178–203, 2008. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.31.2008/pp178-203.dir/pp178-203.pdf`.

Wu:2008:STD

[372] Xiaonan Wu, Gene H. Golub, José A. Cuminato, and Jin Yun Yuan. Symmetric-triangular decomposition and its applications. II. Preconditioners for indefinite systems. *BIT*, 48(1):139–162, March 2008. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=48&issue=1&spage=139`.

Chang:2009:SEC

[373] Xiao-Wen Chang and Gene H. Golub. Solving ellipsoid-constrained integer least squares problems. *SIAM Journal on Matrix Analysis and Applications*, 31 (3):1071–1089, ???? 2009. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Chang:2009:TBP

[374] X.-W. Chang, G. H. Golub, and C. C. Paige. Towards a backward perturbation analysis for data least squares problems. *SIAM Journal on Matrix Analysis and Applications*, 30(4):1281–1301, ???? 2009. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:2009:AYL

[375] Gene Golub and Frank Uhlig. The QR algorithm: 50 years later: its genesis by John Francis and Vera Kublanovskaya and subsequent developments. *IMA Journal of Numerical Analysis*, 29(3): 467–485, 2009. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Vandebril:2009:QSA

[376] Raf Vandebril, Gene Golub, and Marc Van Barel. A quasi-separable approach to solve the symmetric definite tridiagonal generalized eigenvalue problem. *SIAM Journal on Matrix Analysis and Applications*, 31(1):154–174, 2009. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Chang:2010:SEC

[377] Xiao-Wen Chang and Gene H. Golub. Solving ellipsoid-constrained integer least squares problems. *SIAM Journal on Matrix Analysis and Applications*, 31 (3):1071–1089, ???? 2010. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Golub:2010:MMQ

[378] Gene H. Golub and Gérard Meurant. *Matrices, Moments and Quadrature with Applications*. Princeton Series in Applied Mathematics. Princeton University Press, Princeton, NJ, USA, 2010. ISBN 0-691-14341-2. xii + 363 pp.

Golub:2013:MC

[379] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*. Johns Hopkins Studies in the Mathematical Sciences. The Johns Hopkins University

Press, Baltimore, MD, USA, fourth edition, 2013. ISBN 1-4214-0794-9 (hardcover), 1-4214-0859-7 (e-book). xxi + 756 pp. LCCN QA188 .G65 2013. URL `https://jhupbooks.press.jhu.edu/title/matrix-computations`.

Golub:1980:NA

[380] Gene H. Golub and Joseph Oliger, editors. *Numerical Analysis*, volume 22 of *Proceedings of symposia in applied mathematics*. American Mathematical Society, Providence, RI, USA, 1980. ISBN 0-8218-0122-8, 0-8218-9237-1 (e-book). viii + 135 pp. LCCN QA1 .S93 v.22.

Schryer:1969:CA

[381] N. L. Schryer. Certification of Algorithm 328 [F4]: "Chebyshev Solution to an Overdetermined Linear System (Richard H. Bartels and Gene H. Golub, Comm. ACM 11(6) 428 (1968))". *Communications of the Association for Computing Machinery*, 12(6):326, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [19].

Spjotvoll:1972:NTF

[382] Emil Spjotvoll. A note on a theorem of Forsythe and Golub. *SIAM Journal on Applied Mathematics*, 23 (3):307–311, November 1972. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Goldfarb:1977:BGD

[383] D. Goldfarb. Bartels–Golub decomposition for linear-programming bases. *Mathematical Programming*, 13(3):272–279, ???? 1977. CODEN MHPGA4. ISSN 0025-5610.

Reid:1982:SEV

[384] J. K. Reid. A sparsity-exploiting variant of the Bartels–Golub decomposition for linear-programming bases. *Mathematical Programming*, 24(1):55–69, ???? 1982. CODEN MHPGA4. ISSN 0025-5610.

Manneback:1985:MAG

[385] P. E. Manneback, Ch. Murigande, and Ph. L. Toint. A modification of an algorithm by Golub and Plemmons for large linear least-squares in the context of Doppler positioning. *IMA Journal of Numerical Analysis*, 5(2):221–233, ???? 1985. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Moharir:1985:ESG

[386] P. S. Moharir. Extending the scope of Golub's method beyond complex multiplication. *IEEE Transactions on Computers*, C-34(5):484–487, May 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676590`.

Powell:1987:EGB

[387] M. J. D. Powell. On error growth in the Bartels–Golub and Fletcher–Matthews algorithms for updating matrix factorizations. *Linear Algebra and its Applications*, 88–89(??):597–621, ???? 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Sheng:1987:PGW

[388] Rong Qin Sheng. Properties of the Golub–Wilkinson algorithm. *Linear Algebra and its Applications*, 92 (??):75–80, July 1987. CODEN

LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/0024379587902515.

Stewart:1987:RBC

[389] G. W. Stewart. Review of *Matrix Computations*, by Gene H. Golub and Charles F. Van Loan. *Linear Algebra and its Applications*, 95 (??):211–215, October 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/002437958790036X.

Demmel:1990:BRM

[390] James W. Demmel. Book review: *Matrix Computations; Second Edition* (Gene Golub and Charles F. Van Loan). *SIAM Review*, 32(4):690–691, December 1990. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Higham:1990:RGH

[391] Nicholas J. Higham. Review of "G. H. Golub and C. F. Van Loan, Matrix Computations, Second Edition, Johns Hopkins University Press, Baltimore, Maryland, 1989". *Linear Algebra and its Applications*, 141:289–292, 1990. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Kockler:1991:PIG

[392] N. Kockler and M. Simons. Parallel implementation of the Golub–Reinsch method on an asynchronous processor array. *Zeitschrift für Angewandte Mathematik und Mechanik*, 71(6):T803–T806, ???? 1991. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Higham:1992:IWP

[393] Nicholas J. Higham. IMA workshop participants Fête Golub on 60th birthday. *SIAM News*, 25:3–??, May 1992. ISSN 0036-1437.

Moler:1992:DGG

[394] C. Moler. Dedication to Gene H. Golub on the occasion of his 15th birthday. *SIAM Journal on Matrix Analysis and Applications*, 13(1):U1–U2, ???? 1992. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Moler:1992:DGH

[395] Cleve Moler. Dedication to Gene H. Golub on the occasion of his 15th birthday. *SIAM Journal on Matrix Analysis and Applications*, 13(1):vii–viii, January 1992. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Young:1993:SCD

[396] David M. Young. Scientific computing and differential equations — an introduction to numerical methods by Gene H. Golub and James M. Ortega. *Bulletin (new series) of the American Mathematical Society*, 28(2):397, April 1993. ISSN 0273-0979 (print), 1088-9485 (electronic).

Gautschi:2002:IBC

[397] Walter Gautschi. The interplay between classical analysis and (numerical) linear algebra — a tribute to Gene H. Golub. *Electronic Transactions on Numerical Analysis*, 13(??):119–147, ???? 2002. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL http://etna.mcs.kent.edu/vol.13.2002/pp119-147.dir/pp119-147.pdf.

Haigh:2005:IGG

[398] Thomas Haigh. An interview with Gene Golub. Technical report, Computer History Museum, Mountain View, CA, USA, 2005. 75 pp. URL `https://archive.computerhistory.org/resources/access/text/2013/12/102746795-05-01-acc.pdf`. Transcript recorded 22–23 October 2005.

Higham:2006:RMC

[399] Nicholas J. Higham. Review of "Moody T. Chu and Gene H. Golub. *Inverse Eigenvalue Problems: Theory, Algorithms, and Applications*". *Journal of Fluid Mechanics*, 556:442–443, 2006. CODEN JFLSA7. ISSN 0022-1120 (print), 1469-7645 (electronic).

Hnetynkova:2006:LTG

[400] Iveta Hnětynková, Martin Plešinger, and Zdeněk Strakoš. Lanczos tridiagonalization, Golub–Kahan bidiagonalization and coreproblem. *Proceedings in Applied Mathematics and Mechanics*, 6 (1):717–718, December 2006. ISSN 1617-7061.

Gutknecht:2007:PSV

[401] Martin Gutknecht, Michael Overton, Lothar Reichel, Daniel B. Szyld, Nick Trefethen, Paul Van Dooren, and Andy Wathen. Preface: Special volume dedicated to Gene Golub on the occasion of his 75th birthday. *Electronic Transactions on Numerical Analysis*, 28:vii, 2007/2008. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). Special volume for Gene Golub.

Mantica:2007:QDE

[402] Giorgio Mantica. Quantum dynamical entropy and an algorithm by Gene Golub. *Electronic Transactions on Numerical Analysis*, 28(??): 190–205, ???? 2007/2008. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.28.2007-2008/pp190-205.dir/pp190-205.pdf`. Special volume for Gene Golub.

Heath:2008:GGR

[403] Michael Heath. Gene Golub remembered. *SIAM News*, 41(1):??, January/February 2008. ISSN 0036-1437. URL `https://www.siam.org/news/news.php?id=1289`.

Higham:2008:HOW

[404] Nicholas J. Higham. In his own words [interview with Gene Golub]. *SIAM News*, 41(1):3, January/February 2008. ISSN 0036-1437. URL `https://www.siam.org/news/news.php?id=1290`.

OLeary:2008:GHG

[405] Dianne P. O'Leary. Gene Howard Golub, 1932–2007. *Linear Algebra and its Applications*, 428(11–12):2405–2409, June 1, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Ruhe:2008:GHG

[406] Axel Ruhe. Gene Howard Golub in memoriam. *BIT Numerical Mathematics*, 48(1):1–2, ???? 2008. ISSN 0006-3835 (print), 1572-9125 (electronic).

Hnetynkova:2009:REG

[407] Iveta Hnětynková, Martin Plešinger, and Zdeněk Strakoš. The regularizing effect of the Golub–Kahan iterative bidiagonalization and revealing the noise level in the data. *BIT Numerical Mathematics*, 49(4):669–696,

December 2009. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=49&issue=4&spage=669.

Ikramov:2009:CBG

[408] Kh. D. Ikramov. On complex Benzi–Golub matrices. *Doklady Mathematics*, 79(3):342–344, ???? 2009. ISSN 1064-5624 (print), 1531-8362 (electronic).

Meurant:2009:GHG

[409] Gérard Meurant. Gene H. Golub 1932–2007. *Numerical Algorithms*, 51(1):1–4, May 2009. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=51&issue=1&spage=1. Tributes to Gene H. Golub, Part I–III appear in volume 53 of this journal.

Reichel:2011:RMM

[410] Lothar Reichel. Review of "Matrices, Moments and Quadrature with Applications" by G. H. Golub and G. Meurant, Princeton University Press, 2010, xi + 363 pages. *Linear Algebra and its Applications*, 434(1):379–380, January 1, 2011. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Strakos:2011:GHG

[411] Zdeněk Strakoš. Gene H. Golub and Gerard Meurant: Matrices, moments and quadrature with applications. *Foundations of Computational Mathematics*, 11(2):241–255, ???? 2011. ISSN 1615-3375 (print), 1615-3383 (electronic).

Gazzola:2016:LGK

[412] Silvia Gazzola, Enyinda Onunwor, Lothar Reichel, and Giuseppe Rodriguez. On the Lanczos and Golub–Kahan reduction methods applied to discrete ill-posed problems. *Numerical Linear Algebra with Applications*, 23 (1):187–204, January 2016. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Meyer-Spasche:2016:PPO

[413] Rita Meyer-Spasche and Rolf Tomas Nossum. Persecution and patronage: Oscar Buneman's years in Britain. *Almagest: International Journal for the History of Scientific Ideas*, 7(2):4–21, 2016. ISSN 1792-2593. URL https://pure.mpg.de/rest/items/item_2403602/component/file_2403630/content; https://www.brepolsonline.net/doi/10.1484/J.ALMAGEST.5.112684.

Trogdon:2016:RHA

[414] Thomas Trogdon and Sheehan Olver. A Riemann–Hilbert approach to Jacobi operators and Gaussian quadrature. *IMA Journal of Numerical Analysis*, 36 (1):174–196, January 2016. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL http://imajna.oxfordjournals.org/content/36/1/174.

OLeary:2018:BMG

[415] Dianne P. O'Leary. *Biographical Memoirs: Gene H. Golub 1932–2007*. National Academy of Sciences, Washington, DC, USA, 2018. 23 pp. URL http://www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/golub-gene.pdf.

Alqahtani:2019:GBA

[416] Hessah Alqahtani and Lothar Reichel. Generalized block anti-Gauss quadrature rules. *Numerische Mathematik*, 143(3):605–648, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01069-z`.

Gil:2019:FRU

[417] Amparo Gil, Javier Segura, and Nico M. Temme. Fast, reliable and unrestricted iterative computation of Gauss–Hermite and Gauss–Laguerre quadratures. *Numerische Mathematik*, 143(3):649–682, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01066-2`.

Goldenberg:2019:GKD

[418] Steven Goldenberg, Andreas Stathopoulos, and Eloy Romero. A Golub–Kahan Davidson method for accurately computing a few singular triplets of large sparse matrices. *SIAM Journal on Scientific Computing*, 41(4):A2172–A2192, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Asgari:2020:EBG

[419] Z. Asgari, F. Toutounian, E. Babolian, and E. Tohidi. An extended block Golub–Kahan algorithm for large algebraic and differential matrix Riccati equations. *Computers and Mathematics with Applications*, 79(8):2447–2457, April 15, 2020. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122119305437`.

Bai:2021:GKV

[420] Xianglan Bai, Alessandro Buccini, and Lothar Reichel. Golub–Kahan vs. Monte Carlo: a comparison of bidiagonalization and a randomized SVD method for the solution of linear discrete ill-posed problems. *BIT Numerical Mathematics*, 61(4):1093–1114, December 2021. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `https://link.springer.com/article/10.1007/s10543-021-00857-0`.

Moler:2022:CCC

[421] Cleve Moler. Cleve's corner: Christian Reinsch, Roland Bulirsch, and the SVD. MathWorks Web site., October 23, 2022. URL `http://feeds.feedburner.com/mathworks/moler`.

Bentbib:2023:GGK

[422] A. H. Bentbib, M. El Ghomari, K. Jbilou, and L. Reichel. The global Golub–Kahan method and Gauss quadrature for tensor function approximation. *Numerical Algorithms*, 92(1):5–34, January 2023. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `https://link.springer.com/article/10.1007/s11075-022-01392-x`.

Laudadio:2023:CGQ

[423] Teresa Laudadio, Nicola Mastronardi, and Paul Van Dooren. Computing Gaussian quadrature rules with high relative accuracy. *Numerical Algorithms*, 92(1):767–793, January

2023. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `https://link.springer.com/article/10.1007/s11075-022-01297-9`.

Reinsch:2023:SVD

[424] Christian Reinsch and Mathias Richter. Singular value decomposition in extended double precision arithmetic. *Numerical Algorithms*, 93(3):1137–1155, July 2023. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `https://link.springer.com/article/10.1007/s11075-022-01459-9`.

Carson:2024:TUC

[425] Erin Carson, Jörg Liesen, and Zdeněk Strakoš. Towards understanding CG and GMRES through examples. *Linear Algebra and its Applications*, 692 (??):241–291, July 1, 2024. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379524001381`.

Hansen:2013:LSD

[426] Per Christian Hansen, V. (Víctor) Pereyra, and Godela Scherer. *Least Squares Data Fitting with Applications*. The Johns Hopkins University Press, Baltimore, MD, USA, 2013. ISBN 1-4214-0786-8 (hardcover), 1-4214-0858-9 (e-book). xv + 305 pp. LCCN QA275 .H26 2013. URL `http://muse.jhu.edu/books/9781421408583/`.

Kalenich:1965:IPP

[427] Wayne A. Kalenich, editor. *Information Processing 1965: Proceedings of IFIP Congress 65*. Spartan Books, London, England, 1965. LCCN QA76 .I575. Two volumes.

Milton:1969:CSC

[428] Roy C. Milton and John A. Nelder, editors. *Conference on Statistical Computation (1969: University of Wisconsin) Statistical computation; proceedings*. Academic Press, New York, NY, USA, 1969. LCCN QA276.4 .C6 1969.

Abadie:1970:INP

[429] J. Abadie, editor. *Integer and Nonlinear Programming*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1970. ISBN 0-444-10000-8. LCCN T57.7 .I57. A NATO Summer School held in Bandol, France.

Rosen:1970:SNP

[430] J. B. Rosen, O. L. Mangasarian, and K. Ritter, editors. *Symposium on Nonlinear Programming (1st: 1970: Madison, WI, USA)*, number 25 in Publication of the Mathematics Research Center, University of Wisconsin, Madison. Academic Press, New York, NY, USA, 1970. ISBN 0-12-597050-1. LCCN QA3 .U45 no. 25.

Morris:1971:STN

[431] John Ll. Morris, editor. *Symposium on the Theory of Numerical Analysis, held in Dundee/Scotland, September 15–23, 1970*, volume 193 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1971. ISBN 0-387-05422-7. vi + 152 pp. LCCN QA3 .L35 v.193.

Wilkinson:1971:LA

[432] James H. Wilkinson and Christian Reinsch, editors. *Linear Algebra*, volume II

of *Handbook for Automatic Computation, Editors: F. L. Bauer, A. S. Householder, F. W. J. Olver, H. Rutishauser, K. Samelson and E. Stiefel*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1971. ISBN 0-387-05414-6, 3-540-05414-6. viii + 439 pp. LCCN QA251 .W67.

Hu:1973:MPP

[433] T. C. Hu and Stephen M. Robinson, editors. *Mathematical Programming: Proceedings of an Advanced Seminar*, number 30 in Publication of the Mathematics Research Center, the University of Wisconsin. Academic Press, New York, NY, USA, 1973. ISBN 0-12-358350-0. LCCN QA3.U45 no. 30 T57.7.

Kabe:1973:MSI

[434] D. J. Kabe and R. P. Gupta, editors. *Multivariate Statistical Inference; Proceedings of The Research Seminar Dalhousie University, Halifax, March 23–25, 1972*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1973. ISBN 0-444-10532-8. LCCN QA278 .M861.

Kennedy:1973:PCS

[435] William Jo Kennedy, editor. *Proceedings of the Computer Science and Statistics Seventh Annual Symposium on the Interface, Ames, Iowa, October 18–19, 1973*. Statistical Laboratory, Iowa State University, Ames, IA, USA, 1973. LCCN QA 276.4 C58 1973.

Miller:1973:TNA

[436] John J. H. Miller, editor. *Topics in Numerical Analysis: Proceedings of the Royal Irish Academy Conference on Numerical Analysis, Dublin*. Academic Press, New York, NY, USA, 1973. ISBN 0-12-496950-X. LCCN QA297 .R691 1972.

Tarter:1973:PCS

[437] Michael E. Tarter, editor. *Proceedings of the Computer Science and Statistics 6th Annual Symposium on the Interface, held Oct. 16–17, 1972, on the Berkeley campus of the University of California*. Western Periodicals Co.,, North Hollywood, CA, 1973. LCCN QA276.A1 C67 1972.

Pereyra:1974:ADS

[438] V. Pereyra, editor. *Actas Del Seminario Sobre Metodos Numericos Moderno*, volume I. Universidad Central de Venezuela, ??, Venezuela, 1974. ISBN ???? LCCN ????

Anonymous:1975:SI

[439] Anonymous, editor. *Seminaires IRIA*. Inst. Rech. D'Informatique et d'Automatique, Rocquencourt, France, 1975. ISBN ???? LCCN ????

Glowinski:1975:CMA

[440] R. Glowinski and Jacques Louis Lions, editors. *Computing Methods in Applied Sciences and Engineering: Second International Symposium, December 15–19, 1975*, volume 58 of *Lecture notes in physics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1975. ISBN 0-387-07990-4, 0-387-08003-1, 3-540-08003-1, 3-540-37550-3 (e-book). LCCN TA345.I57 1975b. URL `http://www.springer.com/gp/book/9783540375500; http://www.springer.com/us/book/9783540079903`. Also as Lecture Notes in Economics and Mathematical Systems, Vol. 134.

ARO:1976:PAN

[441] *Proceedings of the 1976 Army Numerical and Computers Analysis Conference (13th)*, number 76-3 in ARO report. U.S. Army Research Office, Research Triangle Park, NC, USA, 1976. ISBN ?? LCCN ??

Bunch:1976:SMC

[442] James R. Bunch and Donald J. Rose, editors. *Sparse Matrix Computations: Proceedings of the Symposium on Sparse Matrix Computations at Argonne National Laboratory on September 9–11, 1975*. Academic Press, New York, NY, USA, 1976. ISBN 0-12-141050-1. LCCN QA188 .S989 1975.

Nashed:1976:GIA

[443] M. Zuhair Nashed, editor. *Generalized Inverses and Applications: Proceedings of an Advanced Seminar; Mathematics Research Center, the University of Wisconsin, Madison, October 8–10, 1973*, number 32 in Publication of the Mathematics Research Center, University of Wisconsin, Madison. Academic Press, New York, NY, USA, 1976. ISBN 0-12-514250-1. LCCN QA3 .U45 no. 32.

Army:1977:TTC

[444] *Transactions of the Twenty-Second Conference of Army Mathematicians (Watervliet Arsenal, Watervliet, NY, 1976)*, volume 77-1 (or 77-7??) of *ARO Report*. U.S. Army Research Office, Research Triangle Park, NC, USA, February 1977. ISBN ???? LCCN ????

Kuck:1977:HSC

[445] David J. Kuck, D. Lawrie, and A. Sameh, editors. *High Speed Computer and Algorithm Organization: Proceedings of the Symposium on High Speed Computer and Algorithm Organization, held at the University of Illinois, April 13–15, 1977*. Academic Press, New York, NY, USA, 1977. ISBN 0-12-427750-0. LCCN QA76.5 S95 1977.

Rice:1977:MSI

[446] John R. Rice, editor. *Mathematical software III: Proceedings of a symposium conducted by the Mathematics Research Center, the University of Wisconsin–Madison, March 28–30, 1977*, number 39 in Publication of the Mathematics Research Center, the University of Wisconsin, Madison. Academic Press, New York, NY, USA, 1977. ISBN 0-12-587260-7. LCCN QA3 .U45 no. 39; QA297 .M36 1977. URL `https://www.sciencedirect.com/book/9780125872607/mathematical-software`.

deBoor:1978:SRA

[447] Carl de Boor and Gene H. Golub, editors. *Symposium on Recent Advances in Numerical Analysis (1978: Madison, Wis.). Recent Advances in Numerical Analysis: Proceedings of a Symposium Conducted by the Mathematics Research Center, the University of Wisconsin, Madison, May 22–24, 1978*, volume 41 of *Publication of the Mathematics Research Center, the University of Wisconsin, Madison*. Army Mathematics Research Center, Academic Press, New York, NY, USA, 1978. ISBN 0-12-208360-1. LCCN QA3 .U45 no. 41; QA297 S994 1978. URL `http://catalog.hathitrust.org/api/volumes/oclc/65991765.html`; `http://www.gbv.de/dms/hbz/toc/ht001227727.pdf`.

Marek:1978:PFS

[448] Ivo Marek, editor. *Proceedings of the Fourth Symposium on Basic Problems of Numerical Mathematics (Plzen, Czechoslovakia)*. Reprograficke stredisko MFF UK, ??, 1978. ISBN ?? LCCN ??

Watson:1978:NAP

[449] G. A. Watson, editor. *Numerical Analysis: Proceedings of the Biennial Conference held at Dundee, June 28–July 1, 1977*, volume 630 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1978. ISBN 0-387-08538-6. LCCN QA1 .L471 v.630. DM24.80.

ARO:1979:PAN

[450] *Proceedings of the 1979 Army Numerical Analysis and Computers Conference; sponsored by the Army Mathematics Steering Committee; host, U.S. Army White Sands Missile Range, 14–16 February 1979*, number 79-3 in ARO Report. U.S. Army Research Office, Research Triangle Park, NC, USA, 1979. ISBN ?? LCCN ??

Gasser:1979:STC

[451] Th. Gasser and M. Rosenblatt, editors. *Smoothing Techniques for Curve Estimation: Proceedings of Workshop Held in Heidelberg, April 2–4, 1979*, volume 757 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1979. ISBN 0-387-09706-6. LCCN QA3 .L35 v.757.

Gentleman:1979:PCS

[452] Jane F. Gentleman, editor. *Proceedings of the Computer Science and Statistics: 12th Annual Symposium on the Interface: May 10–11, 1979, University of Waterloo, Waterloo, Ontario, Canada*. University of Waterloo, Waterloo, Ontario, Canada, 1979. LCCN QA 276.4 C58 1979.

Glowinski:1979:CMA

[453] R. Glowinski and J. L. Lions, editors. *Computing methods in applied sciences and engineering: proceedings of the fourth International Symposium on Computing Methods in Applied Sciences and Engineering, Versailles, France, December 10–14, 1979*. North-Holland Publishing Co., Amsterdam, The Netherlands, 1979. ISBN 0-444-86008-8. LCCN TA345 .I57 1979.

Hettich:1979:SIP

[454] Rainer Hettich, editor. *Semi-Infinite Programming: Proceedings of a Workshop, Bad Honnef, August 30–September 1, 1978*, volume 15 of *Lecture notes in control and information sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1979. ISBN 3-540-09479-2. LCCN QA402.5 .S43.

ISCMASE:1979:PIF

[455] *Proceedings of the IRIA Fourth International Symposium on Computing Methods in Applied Science and Engineering, Versailles, France, December 1979*. ??, ??, 1979.

Glowinski:1980:CMA

[456] R. Glowinski and J. L. (Jacques Louis) Lions, editors. *Computing methods in applied sciences and engineering: proceedings of the fourth International Symposium on Computing Methods in Applied Sciences and Engineering, Ver-*

sailles, France, December 10–14, 1979. North-Holland Publishing Co., Amsterdam, The Netherlands, 1980. ISBN 0-444-86008-8. LCCN TA345 .I57 1979.

Caussinus:1982:CSH

[457] H. Caussinus et al., editors. *COMPSTAT 1982: 5th Symposium held at Toulouse, 1982*. Physica-Verlag, Wien, Austria, 1982. ISBN 3-7051-0002-5 (v.1), 3-7051-0001-7 (v.2). LCCN QA276.4 .C194 1982. Two volumes.

Watson:1982:NAP

[458] George Alistair Watson, editor. *Numerical Analysis: Proceedings of the 9th Biennial Conference, held at Dundee, Scotland, June 23–26, 1981*, volume 912 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1982. CODEN LNMAA2. ISBN 0-387-11199-9 (softcover), 3-540-11199-9 (softcover), 3-540-39009-X (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3 .L28 no. 912; QA1 .L471; QA297 .D915n 1981. URL `http://www.springerlink.com/content/978-3-540-39009-1`.

Blackburn:1983:SIC

[459] J. F. Blackburn, editor. *Sixth International Conference on Computing Methods in Applied Sciences and Engineering: December 12–16, 1983, Versailles, France*. Rocquencourt, Centre de Rocquencourt, France, 1983. ISBN ?? LCCN ??

Glowinski:1983:CMA

[460] R. Glowinski and J.-L. Lions, editors. *Computing Methods in Applied Sciences and Engineering, VI: Proceedings of the Sixth International Symposium on Computing Methods in Applied Sciences and Engineering, Versailles, France, December 12–16, 1983*. Elsevier Science Publishers, Amsterdam, The Netherlands, 1983. ISBN 0-444-87597-2. LCCN QA297.I57 1983.

Dongarra:1984:IPS

[461] Jack Dongarra, Gene Golub, Jorge Moré, and Danny Sorensen, editors. *Informal Proceedings of the Symposium on Computational Mathematics — State of the Art, held at Argonne National Laboratory, September 20–21, 1984, in honor of James H. Wilkinson*. Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439-4801, USA, December 1984. LCCN ?? Technical Report MCS-TM-42. It consists of copies of lecture slides from the ten symposium talks.

Golub:1984:SNA

[462] Gene H. Golub, editor. *Studies in Numerical Analysis*, volume 24 of *Studies in mathematics*. Mathematical Association of America, Washington, DC, USA, 1984. ISBN 0-88385-126-1 (v. 1), 0-88385-100-8 (set). x + 415 pp. LCCN QA297 .S83 1984.

Heiberger:1987:CSS

[463] R. M. Heiberger, editor. *Computer Science and Statistics: Proceedings of the 19th Symposium on the Interface*. American Stat. Assoc, Alexandria, VA, USA, 1987.

Noye:1987:CTA

[464] John Noye et al., editors. *Computational Techniques and Applications, CTAC-87: Proceedings of the 1987 International Conference on Computational*

Techniques and Applications, held at the University of Sydney, Australia. Elsevier North-Holland, Inc., New York, NY, USA, 1987. ISBN 0-444-70400-0. LCCN QA299.6 .I561 1987.

Glowinski:1988:FIS

[465] Roland Glowinski, Gene H. Golub, Gérard Meurant, and Jacques Périaux, editors. *First International Symposium on Domain Decomposition Methods for Partial Differential Equations: Proceedings of the First International Symposium on Domain Decomposition Methods for Partial Differential Equations, Ecole Nationale des Ponts et Chaussées, Paris, France, January 7–9, 1987*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1988. ISBN 0-89871-220-3. LCCN QA402.2 .I571 1987. URL `http://www.jstor.org/stable/2008749`.

Wilhelmson:1988:HSC

[466] Robert B. Wilhelmson, editor. *High-Speed Computing: Scientific Applications and Algorithm Design*. University of Illinois Press, Urbana, IL, USA, 1988. ISBN 0-252-01440-5. 228 pp. LCCN QA76.5 .H4831 1988.

Kowalik:1989:S

[467] Janusz S. Kowalik, editor. *Supercomputing*, volume 62 of *NATO ASI series. Series F, Computer and systems sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1989. ISBN 3-540-52691-9 (Berlin), 0-387-52691-9 (New York). LCCN QA76.5 .N344 1989. "Proceedings of the NATO Advanced Research Workshop on Supercomputing, held in Trondheim, Norway, June 19-23, 1989"–T.p. verso. "Published in cooperation with NATO Scientific Affairs Division.".

ARO:1990:TSA

[468] *Transactions of the Seventh Army Conference on Applied Mathematics and Computing*, volume 90-1 of *ARO Report*. U.S. Army Research Office, Research Triangle Park, NC, USA, 1990. LCCN ??

Cox:1990:RNC

[469] M. G. Cox and S. Hammarling, editors. *Reliable numerical computation*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1990. ISBN 0-19-853564-3. LCCN QA297 .R435 1990. US$75.00. Based on papers from a conference in honour of the late James Hardy Wilkinson (died Sunday 5th October 1986) held at National Physical Laboratory, Teddington, Middlesex, UK, 8th–10th July 1987.

Kincaid:1990:IML

[470] David R. Kincaid and Linda J. Hayes, editors. *Iterative methods for large linear systems (Austin, TX, October 19–21, 1988)*. Academic Press, New York, NY, USA, 1990. ISBN 0-12-407475-8. LCCN QA432 .I84 1990.

Kowalik:1990:SNA

[471] Janusz S. Kowalik, editor. *Supercomputing: NATO Advanced Research Workshop on Supercomputing (1989: Trondheim, Norway)*, volume 62 of *NATO ASI series. Series F, Computer and systems sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990. ISBN 0-387-52691-9 (New York), 3-540-52691-9 (Berlin). LCCN QA76.5 .N344 1989.

Anonymous:1991:PIS

[472] Anonymous, editor. *Proceedings of the International Symposium on Supercomputing: Fukuoka, Japan, November 6–8, 1991*. Kyushu University Press, Fukuoka, Japan, 1991. ISBN 4-87378-284-8. LCCN QA76.88.I1991.

Golub:1991:NLA

[473] Gene H. Golub and Paul Van Dooren, editors. *Numerical Linear Algebra, Digital Signal Processing and Parallel Algorithms*, volume 70 of *NATO ASI series. Series F, Computer and systems sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 0-387-52300-6 (New York), 3-540-52300-6 (Berlin). LCCN QA184 .N39 1988.

Vaccaro:1991:SSP

[474] Richard J. Vaccaro, editor. *SVD and Signal Processing, II. Algorithms, Analysis and Applications*. Elsevier, Amsterdam, The Netherlands, 1991. ISBN 0-444-88896-9. LCCN TK5102.5.S93 1991.

Iserles:1992:AN

[475] A. Iserles, editor. *Acta Numerica 1992*. Cambridge University Press, Cambridge, UK, 1992. ISBN 0-521-41026-6. 407 pp. LCCN QA297.A21 1992.

Golub:1993:RAI

[476] Gene H. Golub, Anne Greenbaum, and Mitchell Luskin, editors. *Recent Advances in Iterative Methods*, volume 60 of *The IMA volumes in mathematics and its applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993. ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. DM98.00. Papers from the IMA Workshop on Iterative Methods for Sparse and Structured Problems, held in Minneapolis, Minn., Feb. 24–Mar. 1, 1992.

Hussaini:1993:ATC

[477] M. Y. Hussaini, A. Kumar, and M. D. Salas, editors. *Algorithmic Trends in Computational Fluid Dynamics*, ICASE/NASA LaRC Series. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993. ISBN 0-387-94014-6 (New York), 3-540-94014-6 (Berlin). LCCN QA911 .A555 1993.

IEEE:1993:III

[478] IEEE, editor. *ICASSP 93: 1993 IEEE International Conference on Acoustics, Speech, and Signal Processing, April 27–30, 1993, Minneapolis Convention Center, Minneapolis, Minnesota*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-0946-4. LCCN TK 7882 S65 I16 1993. Five volumes.. IEEE Catalog No. 92CH3252-4.

Moonen:1993:LAL

[479] Marc S. Moonen, Gene H. Golub, and Bart L. R. De Moor, editors. *Linear Algebra for Large Scale and Real-Time Applications: Proceedings of the NATO Advanced Study Institute, Leuven, Belgium, August 3–14, 1992*, volume 232 of *NATO ASI series. Series E, Applied sciences*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1993. ISBN 0-7923-2151-0. LCCN QA185.D37 L56 1993. URL `http://catdir.loc.gov/catdir/enhancements/fy0823/`

92046135-d.html; http://www.gbv.de/dms/hbz/toc/ht004938330.pdf; http://zbmath.org/?q=an:0810.00029.

Brown:1994:PCL

[480] J. David Brown, Moody T. Chu, Donald C. Ellison, and Robert J. Plemmons, editors. *Proceedings of the Cornelius Lanczos International Centenary Conference, Raleigh, North Carolina, December 12–17, 1993*, volume 73 of *Proceedings in Applied Mathematics*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1994. ISBN 0-89871-339-0. LCCN QC19.2 .C67 1993.

Chatterji:1994:PIC

[481] S. D. Chatterji, editor. *Proceedings of the International Congress of Mathematicians: August 3–11, 1994, Zürich, Switzerland*. Birkhäuser Verlag, Basel, Switzerland, 1994. ISBN 3-7643-5153-5, 0-8176-5153-5. LCCN QA1 .I82 1994. Two volumes.

Golub:1994:RAI

[482] Gene Golub, Anne Greenbaum, and Mitchell Luskin, editors. *Recent advances in iterative methods: [papers from the IMA Workshop on Iterative Methods for Sparse and Structured Problems, held in Minneapolis, Minnesota, February 24–March 1, 1992]*, volume 60 of *The IMA Volumes in Mathematics and its Applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1994. ISBN 0-387-94252-1 (New York), 3-540-94252-1 (Berlin). LCCN QA297.8 .R43 1994. URL http://zbmath.org/?q=an:0790.00015.

Griffiths:1994:NAP

[483] D. F. (David Francis) Griffiths and G. A. (G. Alistair) Watson, editors. *Numerical analysis 1993: proceedings of the 15th Dundee Conference, June–July 1993*, volume 303 of *Pitman research notes in mathematics series*. Longman Scientific and Technical, Essex, UK, 1994. ISBN 0-582-22568-X. ISSN 0269-3674. LCCN QA297 .D85 1993.

Quarteroni:1994:DDM

[484] Alfio Quarteroni et al., editors. *Domain Decomposition Methods in Science and Engineering: The Sixth International Conference on Domain Decomposition, June 15–19, 1992, Como, Italy*, volume 157 of *Contemporary Mathematics*. American Mathematical Society, Providence, RI, USA, 1994. ISBN 0-8218-5158-6, 0-8218-7748-8 (online). LCCN QA402.2 .I55 1992.

Buxton:1996:CVE

[485] Bernard Buxton and Roberto Cipolla, editors. *Computer vision, ECCV '96: 4th European Conference on Computer Vision, Cambridge, UK, April 15–18, 1996: proceedings*, volume 1064–1065 of *Lecture notes in computer science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-61122-3 (vol. 1), 3-540-61123-1 (vol. 2). LCCN TA1634.E97 1996. Two volumes.

Griffiths:1996:NAR

[486] D. F. (David Francis) Griffiths and G. A. Watson, editors. *Numerical analysis: A. R. Mitchell 75th birthday volume*. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, and River Edge, NJ, USA, 1996. ISBN

981-02-2719-1, 981-281-287-3 (e-book). ix + 370 pp. LCCN QA297 .N827 1996.

Meinguet:1996:NAN

[487] Jean Meinguet, editor. *Numerical analysis: a numerical analysis conference in honour of Jean Meinguet*, Bulletin of the Belgian Mathematical Society, Simon Stevin. Belgian Mathematical Society, Brussels, Belgium, 1996. LCCN QA297 .N825 1996.

Chan:1997:IMS

[488] Raymond H. Chan, Tony F. Chan, and Gene H. (Gene Howard) Golub, editors. *Iterative methods in scientific computing*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1997. ISBN 981-3083-08-5 (paperback). LCCN QA297.8 .I835 1997.

Duff:1997:SAN

[489] Iain S. Duff and G. Alistair Watson, editors. *The state of the art in numerical analysis*, volume 63 of *The Institute of Mathematics and Its Applications conference series: new series*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1997. ISBN 0-19-850014-9. LCCN QA297.S775 1997. URL `https://global.oup.com/academic/product/the-state-of-the-art-in-numerical-analysis-9780198500148`. Based on the proceedings of a conference on the state of the art in numerical analysis. Organized by the Institute of Mathematics and Its Applications and held at York University in April 1996.

Golub:1997:PWS

[490] Gene Howard Golub, Shui-Hong Lui, Franklin T. Luk, and Robert James Plemmons, editors. *Proceedings of the Workshop on Scientific Computing: Hong Kong, 10–12 March, 1997*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1997. ISBN 981-3083-60-3 (paperback). LCCN QA75.5 .W626 1997. URL `http://www.loc.gov/catdir/enhancements/fy0815/97034830-d.html`; `http://www.loc.gov/catdir/enhancements/fy0815/97034830-t.html`.

VanHuffel:1997:RAT

[491] Sabine Van Huffel, editor. *Recent advances in total least squares techniques and errors-in-variables modeling [Proceedings of the Second International Workshop on Total Least Squares and Errors-in-Variables Modeling, Leuven, Belgium, August 21–24, 1996]*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1997. ISBN 0-89871-393-5. LCCN QA275 .R4 1997.

Gautschi:1999:ACO

[492] Walter Gautschi, Gene H. Golub, and Gerhard Opfer, editors. *Applications and computation of orthogonal polynomials: conference at the Mathematical Research Institute Oberwolfach, Germany, March 22–28, 1998*, volume 131 of *International series of numerical mathematics*. Birkhäuser Verlag, Basel, Switzerland, 1999. ISBN 3-7643-6137-9, 0-8176-6137-9 (paperback). LCCN QA404.5 .A67 1999.

Engquist:2001:MUB

[493] Björn Engquist and Wilfried Schmid, editors. *Mathematics unlimited: 2001 and beyond*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-66913-

2. xv + 1237 pp. LCCN QA7 .M32423 2001.

Golub:2002:IMM

[494] Gene H. Golub and Lev A. Krukier. *Iterative Methods and Matrix Computations*. Rostov State University, Rostov-on-Don, Russia, 2002. ISBN ???? ???? pp. LCCN ???? Lectures of Instructor and Abstracts of Young Scientists (2–9 June, 2002).

Chan:2007:MMC

[495] Raymond H. Chan, Chen Greif, and Dianne P. O'Leary, editors. *Milestones in Matrix Computation: the Selected Works of Gene H. Golub with Commentaries*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2007. ISBN 0-19-920681-3. xi + 565 + 3 pp. LCCN QA188 .G67 2007. URL `http://www.loc.gov/catdir/enhancements/fy0737/2007276086-d.html`.

Du:2007:SSA

[496] Ding-Zhu Du, Charles Farbat, Walter Murray, Michael Overton, Haesun Park, Michael Saunders, and James Varah, editors. *STANFORD 50: State of the Art & Future Directions of Computational Mathematics & Numerical Computing: A conference celebrating the 50th anniversary George Forsythe's arrival at Stanford and Gene Golub's 75th birthday, Stanford University, March 29–31, 2007*. ????, ????, 2007. ISBN ???? LCCN ????