A Bibliography of Publications of R. Baker Kearfott

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29 November 2023
Version 2.22

Abstract

This bibliography records publications of R. Baker Kearfott.

Title word cross-reference

References

Ackleh:2010:CMN

[AAKS10] Azmy S. Ackleh, Edward James Allen, Ralph Baker Kearfott, and Padmanabhan Seshaiyer. *Classical and modern numerical analysis.* Chapman & Hall/CRC Numerical Analysis and Scientific Computing. CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, USA, 2010. ISBN 1-4200-9157-3. xx + 608 pp. LCCN QA297 .C53 2010. Theory, methods and practice.

Albrecht:1993:VNT

[AAS93] R. Albrecht, G. Alefeld, and H. J. Stetter, editors. *Validation numerics: theory and applications*, volume 9 of *Computing. Supplementum*. Springer, Wien / New York, 1993. CODEN COSPDM. ISBN 0-387-82451-0 (New York), 3-211-82451-0 (Vienna). ISSN 0344-8029. LCCN QA297 .V27 1993. Dedicated to Ulrich Kulisch on the occasion of his 60th birthday.

Alt:2004:NSR

[AFKL04] René Alt, Andreas Frommer, R. Baker Kearfott, and Wolfram Luther, editors. *Numerical Software with Result Verification: International Dagstuhl Seminar, Dagstuhl Castle, Germany, January 19–24, 2003. Revised Papers*, volume 2991 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2004. CODEN LNCSD9. ISBN 3-540-21260-4 (paperback), 3-540-24738-6 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA297 .N867 2004. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t2991.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2991; http://www.springeronline.com/3-540-21260-4`.

Allgower:1990:CSN

[AG90] E. L. Allgower and K. Georg, editors. *Computational Solution of Nonlinear Systems of Equations (Fort Collins, CO, 1988)*, volume 26 of *Lectures in Applied Mathematics*. Amer. Math. Soc., Providence, RI, USA, 1990. ISBN 0-8218-1131-2. LCCN QA372 .C6374 1990.

Bialecki:2009:GEP

[BKSS09] Bernard Bialecki, Baker R. Kearfott, Krzysztof A. Sikorski, and Masaki Sugihara. Guest editors' preface: issue dedicated to Professor Frank Stenger. *Journal of complexity*, 25(3):233–236, 2009. CODEN JOCOEH. ISSN 0885-064X (print), 1090-2708 (electronic).

Bowers:1989:CC

[BL89] K. Bowers and J. Lund, editors. *Computation and Control: Proceedings of the Bozeman conference, Bozeman, Montana, August 1–11, 1988*, Progress in Systems and Control Theory. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1989. ISBN 0-8176-3438-X. LCCN TA329 .C6451 1989.

Corliss:2007:FRA

[CFK07] George Corliss, Christopher Foley, and R. Baker Kearfott. Formulation for reliable analysis of structural frames. *Reliable Computing = Nadezhnye vychisleniia*, 13 (2):125–147, April 2007. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1007/s11155-006-9027-0; http://link.springer.com/article/10.1007/s11155-006-9027-0/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=13&issue=2&spage=125; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=13&issue=2&spage=125-147.

Corliss:1993:AIC

[CK93] G. F. Corliss and R. B. Kearfott, editors. *Abstracts for an International Conference on Numerical Analysis with Automatic Result Verification: Mathematics, Application and Software, February 25–March 1, 1993, Lafayette, LA, 1993*, volume 3(3–4) of *Interval Computations*. ????, ????, 1993. ISBN ???? ISSN 0135-4868. LCCN ????

Corliss:1999:RGS

[CK99] George F. Corliss and R. Baker Kearfott. Rigorous global search: Industrial applications. In *Developments in reliable computing. SCAN-98 conference, 8th international symposium on Scientific computing, computer arithmetic and validated numerics. Budapest, Hungary, September 22–25, 1998*, pages 1–16. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1999.

Corliss:2008:ISL

[CKN+08] George F. Corliss, R. Baker Kearfott, Ned Nedialkov, John D. Pryce, and Spencer Smith. Interval subroutine library mission. In *Reliable implementation of real number algorithms: Theory and practice. International seminar, Dagstuhl Castle, Germany, January 8–13, 2006. Revised papers*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 3-540-85520-3 (paperback). LCCN QA76.95 .R45 2008.

Cohen:1982:IFE

[Coh82] B. A. Cohen, editor. *IEEE 1981 frontiers of engineering in health care: September 19–21, 1981, Shamrock Hilton Hotel, Houston, Texas: the 3rd annual conference of the Engineering in Medicine and Biology Society of the Institute of Electrical and Electronics Engineers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. LCCN R856.A2 I344 1981a.

Dawande:1993:ASA

[Daw93] M. W. Dawande. Augmented system approach for solving the least squares problem in an interior point method for linear programming. Master's thesis, University of Southwestern Louisiana, 1993.

Du:1992:CPG

[DK92] Kaisheng Du and R. B. Kearfott. The cluster problem in global optimization: The univariate case. *Computing. Supplementum*, 9:117–127, 1992. CODEN COSPDM. ISSN 0344-8029.

Du:1994:CPM

[DK94] Kaisheng Du and R. Baker Kearfott. The cluster problem in multivariate global optimization. *J. Global Optim.*, 5 (3):253–265, 1994. ISSN 0925-5001 (print), 1573-2916 (electronic). URL `https://doi.org/10.1007/BF01096455`.

Dian:2003:EVS

[DK03] Jianwei Dian and R. Baker Kearfott. Existence verification for singular and nonsmooth zeros of real nonlinear systems. *Mathematics of Computation*, 72(242):757–766, 2003. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Dongarra:1992:PFS

[DKM+92] J. Dongarra, K. Kennedy, P. Messina, D. C. Sorensen, and R. G. Voigt, editors. *Proceedings of the Fifth SIAM Conference on Parallel Processing for Scientific Computing*. SIAM, Philadelphia, PA, USA, 1992. ISBN 0-89871-303-X. LCCN QA76.58 .P76 1992.

Du:1994:CPG

[Du94] K. Du. *Cluster Problem in Global Optimization using Interval Arithmetic*. PhD thesis, University of Southwestern Louisiana, 1994.

Eisenfeld:1989:BSM

[EL89] Jerome Eisenfeld and Daniel S. Levine, editors. *Biomedical Systems Modelling and Simulation*, number 5 in IMACS transactions on scientific computing. J. C. Baltzer AG, Scientific Publishing Company, Basel, Switzerland, 1989. ISBN 3-905135-64-7. LCCN QH323.5 .B56 1989.

Ford:1988:RPA

[FSK88] M. R. Ford, R. D. Sidman, and R. B. Kearfott. Resting and P300 auditory responses in normal subjects and psychiatric patients: Analysis using DLM and brain imager. In Vichnevetsky et al. [VBV88a], pages 739–740. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Guilbeau:2017:RCM

[GHK+17] Jared T. Guilbeau, Md. Istiaq Hossain, Sam D. Karhbet, Ralph Baker Kearfott, Temitope S. Sanusi, and Lihong

Zhao. A review of computation of mathematically rigorous bounds on optima of linear programs. *Journal of Global Optimization*, 68(3):677–683, 2017. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic). URL `https://doi.org/10.1007/s10898-016-0489-2`.

Ganesan:1992:DMU

[GHY+92] K. Ganesan, T. Hanson, Y. Y. Yap, R. B., and Kearfott. Demand management for a utility with only fossil fuel fired thermal generation, 1992.

Hu:1992:PAA

[HBKY92] C.-Y. Hu, M. Bayoumi, R. B. Kearfott, and Q. Yang. A parallelized algorithm for the all-row preconditioned interval Newton/generalized bisection method. In Dongarra et al. [DKM+92], pages 205–209. ISBN 0-89871-303-X. LCCN QA76.58 .P76 1992.

Hu:1995:GIS

[HFKY95] Chenyi Hu, Anna Frolov, R. Baker Kearfott, and Qing Yang. A general iterative sparse linear solver and its parallelization for interval Newton methods. *Reliable Computing = Nadezhnye vychisleniia*, 1(3):251–263, ???? 1995. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL `http://interval.louisiana.edu/reliable-computing-journal/1995/reliable-computing-1995-3-pp-251-263.pdf; http://link.springer.com/article/10.1007/BF02385256; http://link.springer.com/article/10.1007/BF02385256/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=1&issue=3&spage=251-263`.

Hu:1989:WCR

[HK89] C.-Y. Hu and R. B. Kearfott. A width characterization and row selection strategy for the interval Gauss–Seidel method, 1989.

Hu:1990:PSI

[HK90] Chen-Yi Hu and R. Baker Kearfott. A pivoting scheme for the interval Gauss–Seidel method: Numerical experiments. In Law and Wang [LW90], pages 97–100. ISBN 0-444-88693-1. LCCN QA221 .A64 1990.

Hu:2008:IMK

[HK08] Chenyi Hu and R. Baker Kearfott. Interval matrices in knowledge discovery. In Hu et al. [HKdK08], pages 98–118. ISBN 1-84800-325-0 (hardcover), 1-84800-326-9 (ebook). LCCN QA76.9.D343.K669 2008.

Hu:1993:BRS

[HKA93] Chen-Yi Hu, R. Baker Kearfott, and Abdulhamid Awad. On bounding the range of some elementary functions in FORTRAN-77. *Interval Computations*, 2(3(5)):29–39, 1993.

CODEN ???? ISSN 0135-4868. Proceedings of the International Conference on Numerical Analysis with Automatic Result Verification (Lafayette, LA, 1993).

Hu:2008:KPI

[HKdK08] Chenyi Hu, R. Baker Kearfott, and Andre de Korvin, editors. *Knowledge processing with interval and soft computing*. Advanced information and knowledge processing. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 1-84800-325-0 (hardcover), 1-84800-326-9 (ebook). xii + 233 pp. LCCN QA76.9.D343.K669 2008.

Hill:1988:IPE

[HKS88] C. D. Hill, R. B. Kearfott, and R. D. Sidman. The inverse problem of electroencephalography using an imaging technique for simulating cortical surface data. In Vichnevetsky et al. [VBV88a], pages 729–734. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Hu:1993:VOI

[HKSY93] C. Hu, R. B. Kearfott, J. Sheldon, and Q. Yang. On vectorization and optimization of INTBIS on the Cray Y-MP, 1993.

Hu:1994:OIC

[HKSY94] C. Hu, R. B. Kearfott, J. Sheldon, and Q. Yang. Optimizing INTBIS on the Cray Y-MP. *Interval Computations*, 1994(4), 1994. ISSN 0135-4868.

Hu:1990:PINb

[HKY90] C. Hu, R. B. Kearfott, and Q. Yang. The preconditioned interval Newton method on an MIMD computer, 1990.

Hu:1994:ISS

[HKY94] C. Hu, R. B. Kearfott, and Q. Yang. A indexed storage scheme for general sparse matrices and its applications, 1994.

Hu:1994:GIS

[HKYF94] C. Hu, R. B. Kearfott, Q. Yang, and A. Frolov. A general iterative sparse linear solver and its parallelization for interval Newton methods. *Interval Computations*, 1994(4), 1994. ISSN 0135-4868.

Hofschuster:2016:BPW

[HPK16] Werner Hofschuster, Evgenija D. Popova, and Ralph Baker Kearfott. Bibliography of Prof. Walter Krämer. In *Scientific computing, computer arithmetic, and validated numerics*, volume 9553 of *Lecture Notes in Comput. Sci.*, pages 281–290. Springer-Verlag, Cham, Switzerland, 2016. ISBN 97-83319-317-6-9-4; 97-83319-317-6-8-7. URL `https://doi.org/10.1007/978-3-319-31769-4`.

Hu:1994:SNS

[HSKY94] C. Hu, J. Sheldon, R. B. Kearfott, and Q. Yang. Solving nonlinear systems on a vector supercomputer. In *Proc. ISCA Seventh International Conference on Parallel and Distributed Computing Systems*, pages 832–835. ISCA, 1994.

Hu:1995:OIC

[HSKY95] Chenyi Hu, Joe Sheldon, R. Baker Kearfott, and Qing Yang. Optimizing INTBIS on the CRAY Y-MP. *Reliable Computing = Nadezhnye vychisleniia*, 1(3):265–274, ???? 1995. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL `http://interval.louisiana.edu/reliable-computing-journal/1995/reliable-computing-1995-3-pp-265-274.pdf`; `http://link.springer.com/article/10.1007/BF02385257`; `http://link.springer.com/article/10.1007/BF02385257/`; `http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=1&issue=3&spage=265-274`.

Hu:1990:PINa

[Hu90] C.-Y. Hu. *Preconditioners for Interval Newton Methods*. PhD thesis, University of Southwestern Louisiana, 1990.

Huang:1998:IEP

[Hua98] Zhenyu Huang. An interval entropy penalty method for nonlinear global optimization. *Reliable Computing = Nadezhnye vychisleniia*, 4(1): 15–25, February 1998. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL `http://link.springer.com/article/10.1023/A%3A1009994414947/`; `http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=4&issue=1&spage=15`; `http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=4&issue=1&spage=15-25`. See errata and comments [Kea05a].

Jan:1992:EPR

[Jan92] C.-H. Jan. *Expression Parsing and Rigorous Computation of Bounds on All Solutions to Practical Nonlinear Systems*. PhD thesis, University of Southwestern Louisiana, May 1992.

Kearfott:1994:NAA

[KC94] R. B. Kearfott and G. F. Corliss, editors. *Numerical analysis with automatic result verification: International conference — February 1993, Lafayette, LA*, number 3 (or 4??) in INTERVAL COMPUTATIONS 1993. Institute for new technologies, ????, 1994. ISSN 0135-4868.

Kearfott:2013:GFC

[KCT13] Ralph Baker Kearfott, Jessie Castille, and Gaurav Tyagi. A general framework for convexity analysis in deterministic global optimization. *Journal of Global Optimization*, 56

(3):765–785, 2013. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic). URL https://doi.org/10.1007/s10898-012-9905-4.

Kearfott:2014:ANA

[KCT14] Ralph Baker Kearfott, Jessie M. Castille, and Gaurav Tyagi. Assessment of a non-adaptive deterministic global optimization algorithm for problems with low-dimensional non-convex subspaces. *Optimization Methods & Software*, 29(2):430–441, 2014. ISSN 1026-7670 (print), 1055-6788 (electronic). URL https://doi.org/10.1080/10556788.2013.780058.

Kearfott:1993:CPG

[KD93] B. Kearfott and K. Du. The cluster problem in global optimization: The univariate case. In Albrecht et al. [AAS93], pages 117–127. CODEN COSPDM. ISBN 0-387-82451-0 (New York), 3-211-82451-0 (Vienna). ISSN 0344-8029. LCCN QA297 .V27 1993. Dedicated to Ulrich Kulisch on the occasion of his 60th birthday.

Kearfott:1994:CPM

[KD94] R. B. Kearfott and K. Du. The cluster problem in multivariate global optimization. *Journal of Global Optimization*, 5:253–265, 1994. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic).

Kearfott:2002:VTI

[KD02] R. Baker Kearfott and Jianwei Dian. Verifying topological indices for higher-order rank deficiencies. *Journal of complexity*, 18(2):589–611, 2002. CODEN JOCOEH. ISSN 0885-064X (print), 1090-2708 (electronic). Algorithms and complexity for continuous problems/Algorithms, computational complexity, and models of computation for nonlinear and multivariate problems (Dagstuhl/South Hadley, MA, 2000).

Kearfott:2003:EVH

[KD03] R. Baker Kearfott and Jianwei Dian. Existence verification for higher degree singular zeros of nonlinear systems. *SIAM Journal on Numerical Analysis*, 41(6):2350–2373, 2003. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kearfott:1992:IPF

[KDDH92] R. Baker Kearfott, Milind Dawande, Kaishen Du, and Chenyi Hu. INTLIB: a portable Fortran-77 elementary function library. *Interval Computations*, 2(3(5)): 96–105, 1992. CODEN ???? ISSN 0135-4868. URL http://interval.louisiana.edu/reliable-computing-journal/1992/interval-computations-1992-3-pp-96-105.pdf. Interval '92 (Moscow, 1992).

Kearfott:1994:AIP

[KDDH94] R. B. Kearfott, M. Dawande, K. Du, and C. Hu. Algorithm 737: INTLIB: A portable Fortran 77 elementary function library. *ACM Transactions on Mathematical Software*, 20(4):447–459, December 1994. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1994-20-4/p447-kearfott/`.

Kearfott:2000:EVS

[KDN00] R. Baker Kearfott, Jianwei Dian, and A. Neumaier. Existence verification for singular zeros of complex nonlinear systems. *SIAM Journal on Numerical Analysis*, 38(2):360–379, 2000. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kearfott:1972:MC

[Kea72] Ralph Baker Kearfott. The method of characteristics. Bachelor of Science Honors degree, Department of Mathematics, University of Utah, Salt Lake City, UT, USA 84112, 1972. iv + 74 pp.

Kearfott:1977:CDM

[Kea77] Ralph Baker Kearfott. *Computing the degree of maps and a generalized method of bisection*. Ph.D. thesis, Department of Mathematics, University of Utah, Salt Lake City, UT, USA 84112, 1977. x + 159 + 1 pp.

Kearfott:1978:PCE

[Kea78] Baker Kearfott. A proof of convergence and an error bound for the method of bisection in $\mathbf{R}^n$. *Mathematics of Computation*, 32(144):1147–1153, October 1978. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Kearfott:1979:EDC

[Kea79a] Baker Kearfott. An efficient degree-computation method for a generalized method of bisection. *Numerische Mathematik*, 32(2):109–127, June 1979. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Kearfott:1979:SRE

[Kea79b] R. Baker Kearfott. A summary of recent experiments to compute the topological degree. In V. Lakshmikantham, editor, *Applied nonlinear analysis: proceedings of an International Conference on Applied Nonlinear Analysis, held at the University of Texas at Arlington, Arlington, Texas, April 20–22, 1978*, pages 627–633. Academic Press, New York, NY, USA, 1979. ISBN 0-12-434180-2. LCCN QA300 .I48 1978.

Kearfott:1981:DFA

[Kea81] Ralph Baker Kearfott. A derivative-free arc continuation method and a bifurcation technique. In *Numerical solution of nonlinear equations, Proceedings of the Symposium, Bremen*

1980, Lecture Notes in Mathematics. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1981.

Kearfott:1983:CMP

[Kea83a] Ralph Baker Kearfott. Continuation methods and parametrized nonlinear least squares: Techniques and experiments. In Pereyra and Reinoza [PR82], pages 142–150. ISBN 0-387-12334-2 (New York), 3-540-12334-2 (Berlin). LCCN QA3 .L35 v.1005, QA 297 N86 1982.

Kearfott:1983:SAI

[Kea83b] Ralph Baker Kearfott. A sinc approximation for the indefinite integral. *Mathematics of Computation*, 41(164):559–572, October 1983. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Kearfott:1983:SGB

[Kea83c] Ralph Baker Kearfott. Some general bifurcation techniques. *SIAM Journal on Scientific and Statistical Computing*, 4(1):52–68, March 1983. CODEN SIJCD4. ISSN 0196-5204.

Kearfott:1984:GTF

[Kea84] Ralpha Baker Kearfott. On a general technique for finding directions proceeding from bifurcation points. In Küpper et al. [KMW84], pages 210–218. ISBN 3-7643-1627-6. LCCN QA297 .N864 1984.

Kearfott:1987:INM

[Kea87a] R. B. Kearfott. An interval Newton method for nonlinear least squares, 1987.

Kearfott:1987:AGB

[Kea87b] R. Baker Kearfott. Abstract generalized bisection and a cost bound. *Mathematics of Computation*, 49(179):187–202, July 1987. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Kearfott:1987:STG

[Kea87c] R. Baker Kearfott. Some tests of generalized bisection. *ACM Transactions on Mathematical Software*, 13(3):197–220, September 1987. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1987-13-3/p197-kearfott/`. See also [Kea88c].

Kearfott:1988:HSS

[Kea88a] R. B. Kearfott. On handling singular systems with interval Newton methods. In Vichnevetsky et al. [VBV88b], pages 651–653. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Kearfott:1988:RHT

[Kea88b] R. B. Kearfott. The role of homotopy techniques in biomedical modelling: A case study. In Vichnevetsky et al. [VBV88a], pages 732–734. ISBN 2-

9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Kearfott:1988:CTG

[Kea88c] R. Baker Kearfott. Corrigenda: “Some tests of generalized bisection”. *ACM Transactions on Mathematical Software*, 14 (4):399, December 1988. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [Kea87c].

Kearfott:1989:IAM

[Kea89a] R. B. Kearfott. Interval arithmetic methods for nonlinear systems and nonlinear optimization: Introduction and status. In Sharda et al. [SGW+89], pages 533–542. ISBN 0-444-01492-6. LCCN T57.6 .I4831 1989. URL http://www.zentralblatt-math.org/zmath/en/search/?an=0727.90047.

Kearfott:1989:ISC

[Kea89b] R. B. Kearfott. An interval step control for continuation methods, 1989.

Kearfott:1989:HSS

[Kea89c] R. B. Kearfott. On handling singular systems with interval Newton methods. *IMACS Annals on Computing and Applied Mathematics: Numerical and Applied Mathematics*, 1.2:653–655, 1989. ISSN 1012-2435.

Kearfott:1989:IMT

[Kea89d] R. Baker Kearfott. Interval mathematics techniques for control theory computations. In Bowers and Lund [BL89], pages 169–178. ISBN 0-8176-3438-X. LCCN TA329 .C6451 1989.

Kearfott:1990:ING

[Kea90a] R. B. Kearfott. Interval Newton/generalized bisection when there are singularities near roots. *Annals of Operations Research*, 25:181–196, 1990. CODEN AOREEV. ISSN 0254-5330 (print), 1572-9338 (electronic).

Kearfott:1990:IAT

[Kea90b] R. Baker Kearfott. Interval arithmetic techniques in the computational solution of nonlin ear systems of equations: Introduction, examples, and comparisons. In Allgower and Georg [AG90], pages 337–358. ISBN 0-8218-1131-2. LCCN QA372 .C6374 1990.

Kearfott:1990:PIG

[Kea90c] R. Baker Kearfott. Preconditioners for the interval Gauss–Seidel method. *SIAM Journal on Numerical Analysis*, 27 (3):804–822, June 1990. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kearfott:1991:DAE

[Kea91] R. Baker Kearfott. Decomposition of arithmetic expressions to improve the behavior of interval iteration for nonlinear systems. *Computing*, 47

(2):169–191, ???? 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kearfott:1992:IBB

[Kea92] R. B. Kearfott. An interval branch and bound algorithm for bound constrained optimization problems. *Journal of Global Optimization*, 2:259–280, 1992. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic).

Kearfott:1993:PICa

[Kea93a] R. Baker Kearfott, editor. *Proceedings of the international conference on numerical analysis with automatic result verification, Lafayette, LA, USA, February 25–March 1, 1993*, volume 3, 1993. ISSN 0135-4868. Published in *Interval Computing*, Number 3.

Kearfott:1993:PICb

[Kea93b] R. Baker Kearfott, editor. *Proceedings of the international conference on numerical analysis with automatic result verification, Lafayette, LA, USA, February 25–March 1, 1993*, volume 4, 1993. ISSN 0135-4868. Published in *Interval Computing*, Number 4.

Kearfott:1994:EEI

[Kea94a] R. B. Kearfott. Empirical evaluation of innovations in interval branch and bound algorithms for nonlinear algebraic systems, 1994.

Kearfott:1994:VFE

[Kea94b] R. B. Kearfott. On verifying feasibility in equality constrained optimization problems, 1994. CODEN MHPGA4. ISSN 0025-5610.

Kearfott:1994:RTV

[Kea94c] R. B. Kearfott. A review of techniques in the verified solution of constrained global optimization problems, 1994.

Kearfott:1995:IFM

[Kea95a] R. B. Kearfott. INTLIB_ARITHMETIC: A Fortran 90 module for an interval data type, 1995. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Kearfott:1995:TRI

[Kea95b] R. B. Kearfott. Test results for an interval branch and bound algorithm for equality-constrained optimization, 1995.

Kearfott:1995:FER

[Kea95c] R. Baker Kearfott. A Fortran 90 environment for research and prototyping of enclosure algorithms for nonlinear equations and global optimization. *ACM Transactions on Mathematical Software*, 21(1):63–78, March 1995. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1995-21-1/p63-kearfott/`.

Kearfott:1996:ICI

[Kea96a] Baker R. Kearfott. Interval computations: introduction, uses, and resources. *Euromath Bulletin*, 2(1):95–112, 1996. ISSN 1359-4346.

Kearfott:1996:AIF

[Kea96b] R. Baker Kearfott. Algorithm 763: INTERVAL_ARITHMETIC: A Fortran 90 module for an interval data type. *ACM Transactions on Mathematical Software*, 22(4):385–392, December 1996. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1996-22-4/p385-kearfott/`. See [KDDH94].

Kearfott:1996:ADC

[Kea96c] R. Baker Kearfott. Automatic differentiation of conditional branches in an operator overloading context. In *Computational differentiation: techniques, applications, and tools. Proceedings of the second international workshop on computational differentiation, February 12–14, 1996*, pages 75–81. SIAM, Philadelphia, PA, USA, 1996.

Kearfott:1996:IEN

[Kea96d] R. Baker Kearfott. Interval extensions of non-smooth functions for global optimization and nonlinear systems solvers. *Computing*, 57(2):149–162, ???? 1996. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kearfott:1996:RTV

[Kea96e] R. Baker Kearfott. A review of techniques in the verified solution of constrained global optimization problems. In *Applications of interval computations (El Paso, TX, 1995)*, volume 3 of *Appl. Optim.*, pages 23–59. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996.

Kearfott:1996:RGS

[Kea96f] R. Baker Kearfott. *Rigorous global search: continuous problems*, volume 13 of *Nonconvex Optimization and its Applications*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996. ISBN 0-7923-4238-0. xvi + 262 pp. LCCN QA402.5 .K388 1996.

Kearfott:1996:TRI

[Kea96g] R. Baker Kearfott. Test results for an interval branch and bound algorithm for equality-constrained optimization. In *State of the art in global optimization (Princeton, NJ, 1995)*, volume 7 of *Nonconvex Optim. Appl.*, pages 181–199. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996.

Kearfott:1996:TNS

[Kea96h] R. Baker Kearfott. Treating non-smooth functions as smooth functions in global optimization and nonlinear systems solvers. In *Scientific computing and validated numerics (Wuppertal, 1995)*, volume 90 of *Math. Res.*, pages 160–172. Akademie-Verlag, Berlin, 1996.

Kearfott:1997:EEI

[Kea97] R. Baker Kearfott. Empirical evaluation of innovations in interval branch and bound algorithms for nonlinear systems. *SIAM Journal on Scientific Computing*, 18(2):574–594, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kearfott:1998:BRK

[Kea98a] R. Baker Kearfott. Book review: Kreinovich, V., Lakeyev, A., Rohn, J., and Kahl, P.: *Computational Complexity and Feasibility of Data Processing and Interval Computations*. *Reliable Computing = Nadezhnye vychisleniia*, 4(4): 405–409, November 1998. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1024484203503/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=4&issue=4&spage=405; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=4&issue=4&spage=405-409. See [KLRK98].

Kearfott:1998:BRN

[Kea98b] R. Baker Kearfott. Book reviews: *Numerica: A modelling language for global optimization*, by Pascal Van Hentenryck, Laurent Michel, and Yves Deville. *Mathematics of Computation*, 67 (224):??, October 1998. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-98-00989-2&u=/mcom/1998-67-224/.

Kearfott:1998:PEF

[Kea98c] R. Baker Kearfott. On proving existence of feasible points in equality constrained optimization problems. *Mathematical Programming*, 83(1, Ser. A):89–100, 1998. CODEN MHPGA4. ISSN 0025-5610.

Kearfott:1999:SCV

[Kea99] R. Baker Kearfott. On stopping criteria in verified nonlinear systems or optimization algorithms. Technical report, University of Louisiana, New Orleans, LA, USA, 1999. ???? pp. URL http://interval.usl.edu/preprints/TOMS_thick.ps.

Kearfott:2001:ESN

[Kea01] R. Baker Kearfott. An example of singularity in nonlinear systems. *Reliable Computing = Nadezhnye vychisleniia*, 7(5):

425–429, October 2001. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1011484228528/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=7&issue=5&spage=425; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=7&issue=5&spage=425-429.

Kearfott:2002:EUV

[Kea02] R. Baker Kearfott. On existence and uniqueness verification for non-smooth functions. *Reliable Computing = Nadezhnye vychisleniia*, 8(4): 267–282, August 2002. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1016381031155/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=4&spage=267; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=4&spage=267-282.

Kearfott:2003:CWG

[Kea03a] R. Baker Kearfott. COCOS'02 — A Workshop on Global Constrained Optimization and Constraint Satisfaction October 2–4, 2002, Sophia-Antipolis, France. *Reliable Computing = Nadezhnye vychisleniia*, 9(1):81–87, February 2003. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1023014011858/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=9&issue=1&spage=81; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=9&issue=1&spage=81-87.

Kearfott:2003:DCa

[Kea03b] R. Baker Kearfott. Dear colleagues. *Reliable Computing = Nadezhnye vychisleniia*, 9 (2):89–90, April 2003. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/accesspage/article/10.1023/A%3A1023022731988; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=9&issue=2&spage=89; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=9&issue=2&spage=89-90.

Kearfott:2003:DCb

[Kea03c] R. Baker Kearfott. Dear colleagues. *Reliable Computing = Nadezhnye vychisleniia*, 9 (5):315, October 2003. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/accesspage/

article/10.1023/A%3A1025127211629; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=9&issue=5&spage=315.

Kearfott:2003:GHC

[Kea03d] R. Baker Kearfott. GlobSol: History, composition, and advice on use. In Christian Bliek et al., editors, *Global optimization and constraint satisfaction. First international workshop on global constraint optimization and constraint satisfaction, COCOS 2002, Valbonne-Sophia Antipolis, France, October 2 -4, 2002*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003.

Kearfott:2003:SIP

[Kea03e] R. Baker Kearfott. Special issue: Proceedings of the validated computing 2002 conference, Toronto, Canada, May 23–25, 2002. *Reliable Computing = Nadezhnye vychisleniia*, 9(5):315–316, October 2003. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A:1025127211629.

Kearfott:2005:EOI

[Kea05a] R. Baker Kearfott. Errata and opinion to: "An interval entropy penalty method for nonlinear global optimization" [Reliab. Comput. **4**(1) (1998), 15–25; MR1617525] by Zhengyu Huang. *Reliable Computing = Nadezhnye vychisleniia*, 11(2):163–164, April 2005. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s11155-005-3035-3; http://link.springer.com/article/10.1007/s11155-005-3035-3; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=11&issue=2&spage=163; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=11&issue=2&spage=163-164. See [Hua98].

Kearfott:2005:VCS

[Kea05b] R. Baker Kearfott. Validated constraint solving — practicalities, pitfalls, and new developments. *Reliable Computing = Nadezhnye vychisleniia*, 11(5):383–391, October 2005. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1007/s11155-005-0045-0; http://link.springer.com/article/10.1007/s11155-005-0045-0/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=11&issue=5&spage=383; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=11&issue=5&spage=383-391.

Kearfott:2006:DEC

[Kea06] R. Baker Kearfott. Discussion and empirical comparisons of linear relaxations and alternate techniques in validated deterministic global optimization. *Optimization Methods & Software*, 21(5):715–731, 2006. ISSN 1055-6788.

Kearfott:2008:CSM

[Kea08] R. B. Kearfott. A comparison of some methods for bounding connected and disconnected solution sets of interval linear systems. *Computing*, 82(1):77–102, 2008. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kearfott:2009:GUG

[Kea09] R. Baker Kearfott. GlobSol user guide. *Optimization Methods & Software*, 24(4-5):687–708, 2009. ISSN 1055-6788.

Kearfott:2011:EVL

[Kea11a] R. Baker Kearfott. Erratum: Validated linear relaxations and preprocessing: Some experiments. *SIAM Journal on Optimization*, 21(1):415–416, ???? 2011. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic). URL `http://epubs.siam.org/siopt/resource/1/sjope8/v21/i1/p415_s1`. See [KH05].

Kearfott:2011:ICR

[Kea11b] Ralph Baker Kearfott. Interval computations, rigour and non-rigour in deterministic continuous global optimization. *Optimization Methods & Software*, 26(2):259–279, 2011. ISSN 1055-6788.

Kearfott:2014:RUB

[Kea14] Ralph Baker Kearfott. On rigorous upper bounds to a global optimum. *Journal of Global Optimization*, 59(2-3):459–476, 2014. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic). URL `https://doi.org/10.1007/s10898-014-0173-3`.

Kearfott:2015:SOE

[Kea15] Ralph Baker Kearfott. Some observations on exclusion regions in branch and bound algorithms. *Journal of Global Optimization*, 62(2):229–241, 2015. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic). URL `https://doi.org/10.1007/s10898-014-0248-1`.

Kearfott:2016:PSI

[Kea16] R. Baker Kearfott. Preface [Special issue in honor of Ray Moore, 1929–2015]. *Reliable Computing = Nadezhnye vychisleniia*, 23:1, 2016. CODEN RCOMF8. ISSN 1573-1340.

Kearfott:2021:MRG

[Kea21] Ralph Baker Kearfott. Mathematically rigorous global optimization and fuzzy optimization. In *Black box optimization, machine learning, and* *no-free lunch theorems*, volume 170 of *Springer Optim. Appl.*, pages 169–194. Springer-Verlag, Cham, Switzerland, 2021. ISBN 97-83030-665-1-5-9; 97-83030-665-1-4-2. URL https://doi.org/10.1007/978-3-030-66515-9_7.

Kearfott:1998:RGS

[KH98] R. Baker Kearfott and Eldon Hansen. Rigorous global search: Continuous problems. *SIAM Review*, 40(1):153–??, ???? 1998. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Kearfott:2005:VLR

[KH05] R. Baker Kearfott and Siriporn Hongthong. Validated linear relaxations and preprocessing: some experiments. *SIAM Journal on Optimization*, 16 (2):418–433, 2005. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic).

Kearfott:2008:FIC

[KH08] Ralph Baker Kearfott and Chenyi Hu. Fundamentals of interval computing. In Hu et al. [HKdK08], page ?? ISBN 1-84800-325-0 (hardcover), 1-84800-326-9 (ebook). LCCN QA76.9.D343.K669 2008.

Kearfott:1991:RPI

[KHN91] R. Baker Kearfott, Chen-Yi Hu, and Manuel Novoa III. A review of preconditioners for the interval Gauss–Seidel method. *Interval Computations*, 1(1):59–85, 1991. CODEN ???? ISSN 0135-4868. URL http://interval.louisiana.edu/reliable-computing-journal/1991/interval-computations-1991-1-pp-59-85.pdf.

Kearfott:1996:AIC

[KK96] R. Baker Kearfott and Vladik Kreinovich, editors. *Applications of interval computations: Papers presented at an international workshop in El Paso, Texas, February 23–25, 1995*, volume 3 of *Applied Optimization*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996. ISBN 0-7923-3847-2. LCCN QA297.75.A66 1996. "Applications of Interval Computations" contains primarily survey articles of actual industrial applications of numerical analysis with automatic result verification and of interval representation of data. Underlying topics include:

- branch and bound algorithms for global optimization,
- constraint propagation,
- solution sets of linear systems,
- hardware and software systems for interval computations, and
- fuzzy logic.

Actual applications described in the book include:

- economic input-output models,
- quality control in manufacturing design,
- a computer-assisted proof in quantum mechanics,
- medical expert systems,
- and others.

A realistic view of interval computations is taken: the articles indicate when and how overestimation and other challenges can be overcome. An introductory chapter explains the content of the papers in terminology accessible to mathematically literate graduate students. The style of the individual, refereed contributions has been made uniform and understandable, and there is an extensive book-wide index. Audience: Valuable to students and researchers interested in automatic result verification. Detailed information, including contents, contributors, and an order form can be found:

- on Kluwer homepage `http://www.wkap.nl`, or
- on the Interval Computations homepage `http://cs.utep.edu/interval-comp/main.html`, in the "Books" section.

The information on the Interval Computations homepage is basically a mirror image of the Kluwer one (the only difference is that the fonts are fancier).

Kreinovich:2005:BCG

[KK05] Vladik Kreinovich and R. Baker Kearfott. Beyond convex? Global optimization is feasible only for convex objective functions: a theorem. *Journal of Global Optimization*, 33 (4):617–624, 2005. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic).

Karhbet:2017:RBF

[KK17] Sam Karhbet and Ralph Baker Kearfott. Range bounds of functions over simplices, for branch and bound algorithms. *Reliable Computing = Nadezhnye vychisleniia*, 25:53–73, 2017. CODEN RCOMF8. ISSN 1573-1340.

Kreinovich:1998:CCF

[KLRK98] Vladik Kreinovich, Anatoly Lakeyev, Jiři Rohn, and Patrick Kahl. *Computational Complexity and Feasibility of Data Processing and Interval Computations*, volume 10 of *Applied optimization*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998. ISBN 0-7923-4865-6 (hardcover). xii + 459 pp. LCCN QA267.7 .C68 1998. URL `http://www.loc.gov/catdir/enhancements/fy0814/97043085-d.html; http://www.loc.gov/catdir/enhancements/fy0814/97043085-t.html`.

Kirfott:1995:PRF

[KMNJ95] R. B. Kirfott, Je. A. Musaev, V. M. Nesmerov, and A. G.

Jakovlev. Predislovie. (Russian) [Foreword]. *Reliable Computing = Nadezhnye vychisleniia*, 1(1):5–7, ???? 1995. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://interval.louisiana.edu/reliable-computing-journal/1995/reliable-computing-1995-1-pp-5-7.pdf; http://link.springer.com/article/10.1007/BF02390517; http://link.springer.com/article/10.1007/BF02390517/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=1&issue=1&spage=5-7.

Kearfott:1995:Pa

[KMNY95] R. B. Kearfott, E. A. Musaev, V. M. Nesterov, and A. G. Yakovlev. Preface. *Reliable Computing = Nadezhnye vychisleniia*, 1(1):3–4, March 1995. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://interval.louisiana.edu/reliable-computing-journal/1995/reliable-computing-1995-1-pp-3-4.pdf; http://link.springer.com/accesspage/article/10.1007/BF02390516; http://link.springer.com/article/10.1007/BF02390516; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=1&issue=1&spage=3.

Kuepper:1984:NMB

[KMW84] T. Küpper, H. D. Mittelmann, and H. Weber, editors. *Numerical Methods for Bifurcation Problems: Proceedings of the Conference at the University of Dortmund, August 22–26, 1983*, number 70 in International Series of Numerical Mathematics (ISNM). Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1984. ISBN 3-7643-1627-6. LCCN QA297 .N864 1984.

Kearfott:2013:SRD

[KMW+13] Ralph Baker Kearfott, Sowmya Muniswamy, Yi Wang, Xinyu Li, and Qian Wang. On smooth reformulations and direct non-smooth computations for minimax problems. *Journal of Global Optimization*, 57 (4):1091–1111, 2013. CODEN JGOPEO. ISSN 0925-5001 (print), 1573-2916 (electronic). URL https://doi.org/10.1007/s10898-012-0014-1.

Kearfott:1990:AIP

[KN90] R. Baker Kearfott and Manuel Novoa III. Algorithm 681: INTBIS, a portable interval Newton/bisection package. *ACM Transactions on Mathematical Software*, 16(2):152–157, June 1990. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1990-16-2/p152-kearfott/.

Kearfott:1994:FSS

[KN94] R. B. Kearfott and S. Ning.

FORTDIFF: A set of subroutines for Fortran-to-Fortran differentiation of programs, 1994.

Kearfott:2004:LTI

[KNOR04] R. Baker Kearfott, Markus Neher, Shin'ichi Oishi, and Fabien Rico. Libraries, tools, and interactive systems for verified computations four case studies. In Alt et al. [AFKL04], pages x + 315. CODEN LNCSD9. ISBN 3-540-21260-4 (paperback), 3-540-24738-6 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA297 .N867 2004. URL http://link.springer-ny.com/link/service/series/0558/tocs/t2991.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2991; http://www.springeronline.com/3-540-21260-4.

Kearfott:1993:PSH

[KS93] R. Baker Kearfott and Xiaofa Shi. A preconditioner selection heuristic for efficient iteration with decomposition of arithmetic expressions for nonlinear algebraic systems. *Interval Computations*, 3(1): 15–33, 1993. CODEN ???? ISSN 0135-4868. URL http://interval.louisiana.edu/reliable-computing-journal/1993/interval-computations-1993-1-pp-15-33.pdf.

Kearfott:1996:OPI

[KS96] R. Baker Kearfott and Xiaofa Shi. Optimal preconditioners for interval Gauss–Seidel methods. In *Scientific computing and validated numerics (Wuppertal, 1995)*, volume 90 of *Math. Res.*, pages 173–178. Akademie-Verlag, Berlin, 1996.

Kearfott:1991:NTM

[KSMH91] R. B. Kearfott, R. D. Sidman, D. J. Major, and C. D. Hill. Numerical tests of a method for simulating electrical potentials on the cortical surface. *IEEE Transactions on Biomedical Engineering*, 38(3): 294–299, March 1991. CODEN IEBEAX. ISSN 0018-9294 (print), 1558-2531 (electronic).

Kearfott:1980:MIN

[KSS80] R. B. Kearfott, R. D. Sidman, and D. Smith. A method for identifying noise-free evoked potentials application of DLM (dipole localization method) to these components. *IEEE Transactions on Biomedical Engineering*, BME-27(9):534, 1980. CODEN IEBEAX. ISSN 0018-9294 (print), 1558-2531 (electronic).

Kearfott:1987:SFF

[KSS87] R. B. Kearfott, K. Sikorski, and F. Stenger. A sinc function fast Poisson solver, 1987.

Kearfott:2000:SCV

[KW00] R. B. Kearfott and G. W. Walster. On stopping criteria in verified nonlinear systems or optimization algorithms. *ACM*

Transactions on Mathematical Software, 26(3):373–389, 2000. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Kearfott:2002:SCO

[KW02a] R. Baker Kearfott and G. William Walster. SIAM conference on optimization, validated computing 2002, and the fields institute informal working group on validated optimization. *Reliable Computing = Nadezhnye vychisleniia*, 8(5):419–424, October 2002. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1020583804772/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=5&spage=419; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=5&spage=419-424.

Kearfott:2002:SPT

[KW02b] R. Baker Kearfott and G. William Walster. Symbolic preconditioning with Taylor models: Some examples. *Reliable Computing = Nadezhnye vychisleniia*, 8(6):453–468, December 2002. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1021364526413/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=6&spage=453; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=6&spage=453-468.

Kearfott:1993:RCS

[KX93] R. B. Kearfott and Z. Xing. Rigorous computation of surface patch intersection curves, 1993.

Kearfott:1994:ISC

[KX94] R. Baker Kearfott and Zhaoyun Xing. An interval step control for continuation methods. *SIAM Journal on Numerical Analysis*, 31(3):892–914, June 1994. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Lizarralde-Bejarano:2022:MUE

[LBGKPY22] Diana Paola Lizarralde-Bejarano, Hayriye Gulbudak, Ralph Baker Kearfott, and María Eugenia Puerta-Yepes. Modeling the uncertainty in epidemiological models through interval analysis considering actual data from two municipalities in Colombia affected by dengue. *Applied Mathematical Modelling*, 111:739–752, 2022. CODEN AMMODL. ISSN 0307-904X (print), 1872-8480 (electronic). URL https://doi.org/10.1016/j.apm.2022.07.006.

Law:1990:AOC

[LW90] A. G. Law and C. L. Wang, editors. *Approximation, Optimiza-*

tion, and Computing: Theory and Applications. North-Holland, Amsterdam, The Netherlands, 1990. ISBN 0-444-88693-1. LCCN QA221 .A64 1990.

Munoz:2004:SIG

[MK04] Humberto Muñoz and R. Baker Kearfott. Slope intervals, generalized gradients, semigradients, slant derivatives, and Csets. *Reliable Computing = Nadezhnye vychisleniia*, 10 (3):163–193, June 2004. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/B%3AREOM.0000032107.85627.45/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=10&issue=3&spage=163; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=10&issue=3&spage=163-193.

Moore:2009:IIA

[MKC09] Ramon E. Moore, R. Baker Kearfott, and Michael J. Cloud. *Introduction to interval analysis*. SIAM, Philadelphia, PA, USA, 2009. ISBN 0-89871-669-1. xii + 223 pp. LCCN QA297.75 .M656 2009. URL http://www.loc.gov/catdir/enhancements/fy0906/2008042348-b.html; http://www.loc.gov/catdir/enhancements/fy0906/2008042348-d.html; http://www.loc.gov/catdir/enhancements/fy0906/2008042348-t.html.

Ning:1997:CSM

[NK97] S. Ning and R. B. Kearfott. A comparison of some methods for solving linear interval equations. *SIAM Journal on Numerical Analysis*, 34(4): 1289–1305, August 1997. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org:80/sam-bin/dbq/toclist/SINUM.

Novoa:1993:AIS

[Nov93] M. Novoa. Advances in the interval solution of algebraic systems, 1993.

Potvin:1982:FEH

[PP82] Alfred R. Potvin and Janet H. Potvin, editors. *Frontiers of engineering in health care, 1982: proceedings, Fourth Annual Conference, IEEE Engineering in Medicine and Biology Society, Marriott Hotel, Philadelphia, PA, 20–21 September 1982*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. LCCN W3 IE34 1982.

Pereyra:1982:NM

[PR82] V. Pereyra and A. Reinoza, editors. *Numerical Methods: Proceedings of the international workshop held at Caracas, June 14–18, 1982*, volume 1005 of *Lecture Notes in Mathematics*.

Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1982. ISBN 0-387-12334-2 (New York), 3-540-12334-2 (Berlin). LCCN QA3 .L35 v.1005, QA 297 N86 1982.

Roy:2011:GOS

[RK11] J. Roy and R. B. Kearfott. Global optimization and singular nonlinear programs: New techniques. *Reliable Computing = Nadezhnye vychisleniia*, 15(3):242–250, 2011. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Rocha:1996:CUI

[RKK96] Luis Mateus Rocha, Vladik Kreinovich, and R. Baker Kearfott. Computing uncertainty in interval based sets. In *Applications of interval computations (El Paso, TX, 1995)*, volume 3 of *Appl. Optim.*, pages 337–380. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1996.

Sharda:1989:IRC

[SGW+89] R. Sharda, B. L. Golden, E. Wasil, O. Balci, and G. W. Stewart, editors. *Impacts of Recent Computer Advances on Operations Research*, volume 9 of *Publications in Operations Research*. North-Holland, Amsterdam, The Netherlands, 1989. ISBN 0-444-01492-6. LCCN T57.6 .I4831 1989. URL `http://www.zentralblatt-math.org/zmath/en/search/?an=0727.90047`.

Shi:1994:SRR

[SK94] S. Shi and R. B. Kearfott. Some results on the regularity of an interval matrix, 1994. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Sidman:1989:DAM

[SKM+89] R. D. Sidman, R. B. Kearfott, D. J. Major, C. D. Hill, M. R. Ford, D. B. Smith, L. Lee, and R. Kramer. Development and application of mathematical techniques for the non-invasive localization of sources of scalp-recorded electic potentials. In Potvin and Potvin [PP82], pages 133–157. LCCN W3 IE34 1982.

Sidman:1988:IPE

[SKS88] R. D. Sidman, R. B. Kearfott, and C. Schlichting. The inverse problem of electroencephalography assuming double layer neural generators. In Vichnevetsky et al. [VBV88a], pages 726–728. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Smith:1982:UES

[SSHK82] D. B. Smith, R. D. Sidman, J. S. Henke, and R. B. Kearfott. The use of equivalent source models in EP research and differential diagnosis. In Cohen [Coh82], pages 64–70. LCCN R856.A2 I344 1981a.

Vichnevetsky:1988:PTI3

[VBV88a] R. Vichnevetsky, P. Borne, and J. Vignes, editors. *Proceedings of the Twelfth IMACS World Congress on Scientific Computation 3 (July 18–22 1988, Paris, France)*. IMACS, Villeneuve d'Asq, France, 1988. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Vichnevetsky:1988:PTI4

[VBV88b] R. Vichnevetsky, P. Borne, and J. Vignes, editors. *Proceedings of the Twelfth IMACS World Congress on Scientific Computation 4*. IMACS, Villeneuve d'Asq, France, 1988. ISBN 2-9502908-0-9. LCCN QA 76.9 C65 I43 1988. Five volumes.

Xing:1993:RSC

[Xin93] Zh. Xing. *Rigorous Step Control for Continuation*. PhD thesis, University of Southwestern Louisiana, 1993.

Xing:1992:EIS

[XK92] Z. Xing and R. B. Kearfott. An efficient interval step control for two dimensional continuation methods, 1992.

Yakovlev:1991:BSW

[YK91] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations, Part I. *Interval Computations*, 1(2): 115–122, 1991. CODEN ???? ISSN 0135-4868. URL `http://interval.louisiana.edu/reliable-computing-journal/1991/interval-computations-1991-2-pp-115-122.pdf`.

Yakovlev:1992:BSWa

[YK92a] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. II. *Interval Computations*, 1992(1(3)):104–111, 1992. ISSN 0135-4868.

Yakovlev:1992:BSWb

[YK92b] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. II. *Interval Computations*, 1(3):104–111, 1992. CODEN ???? ISSN 0135-4868. URL `http://interval.louisiana.edu/reliable-computing-journal/1992/interval-computations-1992-1-pp-104-111.pdf`.

Yakovlev:1992:BSWc

[YK92c] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. III. *Interval Computations*, 2(4):107–115, 1992. CODEN ???? ISSN 0135-4868. URL `http://interval.louisiana.edu/reliable-computing-journal/1992/interval-computations-1992-2-pp-107-115.pdf`.

Yakovlev:1993:BSW

[YK93] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. IV. *In-*

terval Computations, 3(1):103–115, 1993. CODEN ???? ISSN 0135-4868. URL `http://interval.louisiana.edu/reliable-computing-journal/1993/interval-computations-1993-1-pp-103-115.pdf`. Text in English and Russian.

Yakovlev:1994:BSWa

[YK94a] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. V. *Interval Computations*, 1994(1):100–109, 1994. ISSN 0135-4868.

Yakovlev:1994:BSWb

[YK94b] Alexander G. Yakovlev and R. Baker Kearfott. Bibliography of Soviet works on interval computations. VI. *Interval Computations*, 1994(2):116–126, 1994. ISSN 0135-4868.