Some selected references to INTLAB

[1] M. Abulizi and P. Mahemuti. Interval Numbers and Interval Control System for Application. *Journal of Xinjiang University (Science & Engineering)*, 22(2):165–190, 2005. `http://scholar.ilib.cn/abstract.aspx?A=xjdxxb200502024`.

[2] C.S. Adjiman and I. Papamichail. Deterministic Global Optimization Algorithm and Nonlinear Dynamics. Technical report, Centre for Process Systems Engineering, Department of Chemical Engineering and Chemical Technology, Imperial College London and Global Optimization Theory Institute, Argonne National Laboratory, 2003. http://www.mat.univie.ac.at/ neum/glopt/mss/AdjP03.pdf.

[3] H.-S. Ahn, K.L. Moore, and Y.Q. Chen. Monotonic convergent iterative learning controller design based on interval model conversion. *IEEE Transactions on Automatic Control*, 51(2):366–371, 2006. `http://www.ece.usu.edu/csois/people/hyosung/ISIC05_1.pdf`.

[4] H.-S. Ahn, K.L. Moore, and ChenY.K. *Iterative learning control: Robustness and monotonic convergence for interval systems.* Communications and Control Engineering Series (CEE). Springer-Verlag, London, 2007. `http://www.springer.com/west/home?SGWID=4-102-22-173727127-0&changeHeader=true&SHORTCUT=www.springer.com/978-1-84628-846-3`.

[5] G. Alefeld and G. Mayer. Consider Poisson's equation. `http://iamlasun8.mathematik.uni-karlsruhe.de/alefeld/publications/2004_On_Singular_Interval_Systems.pdf`.

[6] G. Alefeld and G. Mayer. New Verification Techniques Based on Interval Arithmetic On Singular Interval Systems. In *Numerical Software with Result Verification*, volume 2991/2004 of *Lecture Notes in Computer Science*, pages 191–197. Springer Berlin / Heidelberg, 2004. `http://www.springerlink.com/content/r3xvwa0eeaknfl4k/fulltext.pdf`.

[7] G. Alefeld and G. Mayer. Enclosing Solutions of Singular Interval Systems Iteratively. *Reliable Computing*, 11(3):165–190, 2005. `http://www.springerlink.com/content/j1404h186r0w4847/fulltext.pdf`.

[8] G. Alefeld and Z. Wang. Error bounds for complementarity problems with tridiagonal nonlinear functions. *Computing*, 83(4):175–192, 2008. DOI 10.1007/s00607-008-0021-8, `http://www.springerlink.com/content/xt054675l1k723kj/`.

[9] G. Alefeld and Z. Wang. Error estimation for nonlinear complementarity problems via linear systems with interval data. *Numerical Functional Analysis and Optimization*, 29(3–4):243–267, 2008. DOI: 10.1080/01630560801998054, `http://iamlasun8.mathematik.uni-karlsruhe.de/alefeld/publications/2008_Error_Estimation_for_NonLinear_Complementarity_Problems.pdf`.

[10] G. Alefeld and Z. Wang. Bounding the error for approximate solutions of almost linear complementarity problems using feasible vectors. *Numer. Linear Algebra Appl.*, 2010. `http://iamlasun8.mathematik.uni-karlsruhe.de/alefeld/publications/2009_Bounding_the_Error.pdf`.

[11] G. Alefeld and Z. Wang. Bounding the error for approximate solutions of almost linear complementarity problems using feasible vectors. *Numerical Linear Algebra with Applications*, 18(2):1099–1506, 2011. `http://onlinelibrary.wiley.com/doi/10.1002/nla.719/full`.

[12] G. Alefeld and Z. Wang. Error Bounds for Nonlinear Complementarity Problems with Band Structure. *Journal of Optimization Theory and Applications*, 150(1):33–51, 2011. DOI: 10.1007/s10957-011-9821-7, `http://www.springerlink.com/content/91q7g346795plt28/`.

[13] R. Alt, J.-L. Lamotte, and S. Markov. Numerical Study of Algebraic Problems Using Stochastic Arithmetic. In *Large-Scale Scientific Computing*, volume 4818 of *Lecture Notes in Computer Science*. Springer, 2008. DOI 10.1007/978-3-540-78827-0_12, `http://www.springerlink.com/content/q45505p4355h4162/`.

[14] R. Alt and S. Markov. On the Algebraic Properties of Stochastic Arithmetic. In *Comparison to Interval Arithmetic, Scientific Computing, Validated Numerics, Interval Methods*, pages 331–341. Kluwer, 2001. `http://www.math.bas.bg/~bio/smarkov/MALTWVG.PS`.

[15] M. Althoff. *CORA 2015 Manual*. Technische Universität München, 2015. `http://www6.in.tum.de/pub/Main/SoftwareCORA/Cora2015Manual.pdf`.

[16] M. Althoff, B.H. Krogh, and O. Stursberg. Analyzing Reachability of Linear Dynamic Systems with Parametric Uncertainties. In A. Rauh and E. Auer, editors, *Modeling, Design, and Simulation of Systems with Uncertainties*, volume 3 of *Mathematical Engineering*, pages 69–94. Springer, Berlin-Heidelberg, 2011. DOI: 10.1007/978-3-642-15956-5_4, `http://www.springerlink.com/content/l421317515t44x08/`.

[17] M. Amairi, M. Aoun, and B. Saidi. Design of robust fractional order PI for FOPDT systems via set inversion. In *Control Applications (CCA), 2014 IEEE Conference on*, pages 1166–1171, 2014. doi=10.1109/CCA.2014.6981486.

[18] C. An, X. Chen, I.H. Sloan, and R.S. Womersley. Well Conditioned Spherical Designs for Integration and Interpolation on the Two-Sphere. *SIAM J. Numer. Anal.*, 48(6):2135–2157, 2010. `http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2135_s1`.

[19] A. Andreas Rauh, J. Minisini, and E. P. Hofer. Verification Techniques for Sensitivity Analysis and Design of Controllers for Nonlinear Dynamic Systems with Uncertainties. *International Journal of Applied Mathematics and Computer Science*, 19(3):425–439, 2009. DOI 10.2478/v10006-009-0035-1, `http://versita.metapress.com/content/807l711vju8k624k/`.

[20] H. Antil. *Optimization and Model Reduction of Time Dependent PDE-Constrained Optimization Problems: Applications to Surface Acoustic wave driven microfluidic biochips*. PhD thesis, Faculty of the Department of Mathematics, University of Houston, 2009. `http://math.uh.edu/Matweb/resources/Dissertation_HAntil.pdf`.

[21] H. Antil, M. Heinkenschloss, and R.H.W. Hoppe. Domain decomposition and balanced truncation model reduction for shape optimization of the Stokes system. submitted to Optimization Methods & Software, 2009.

[22] H. Antil, M. Heinkenschloss, R.H.W. Hoppe, Ch. Linsenmann, and A. Wixforth. Reduced Order Modeling Based Shape Optimization of Surface Acoustic Wave Driven Microfluidic Biochips. Mathematics and Computers in Simulation, in press, corrected proof, 2010. `http://www.sciencedirect.com/science/article/pii/S0378475410003496`.

[23] H. Antil, M. Heinkenschloss, R.H.W. Hoppe, and D.C. Sorensen. Domain Decomposition and Model Reduction for the Numerical Solution of PDE Constrained Optimization Problems with Localized Optimization Variables. *Optimization Methods and Software*, 26(4–5):643–669, 2011. DOI:10.1080/10556781003767904, `http://www.tandfonline.com/doi/abs/10.1080/10556781003767904`.

[24] H. Antil, R. H. W. Hoppe, and C. Linsenmann. Optimal design of stationary flow problems by path-following interior point methods. *Control and Cybernetics*, 37(4), 2008. `http://math.uh.edu/~harbir/Publications/AnHoLi_SMO_Rev.pdf`.

[25] M. Anwar and A. El-Ata. Assessment of uncertainties in substation grounding system using interval mathematics. *Ain Shams Engineering Journal*, 2011. doi: 10.1016/j.asej.2011.11.001, `http://www.sciencedirect.com/science/article/pii/S2090447911000591`.

[26] Z. Arai. A rigorous numerical algorithm for computing the linking number of links. *Nonlinear Theory and Its Applications, IEICE*, 2(3):1101–1107, 2011. DOI: 10.1588/nolta.2.1101.

[27] H. Aschemann, A. Rauh, M. Kletting, E.P. Hofer, M. Gennat, and B. Tibken. Interval Analysis and Nonlinear Control of Wastewater Plants with Parameter Uncertainty. In *Proc. of the IFAC World Congress 2005, Prague, Czech Republic (DVD)*, 2005.

[28] I. Ashokaraj, A. Tsourdos, P. Silson, and B White. Sensor Based Robot Localisation and Navigation: Using Interval Analysis and Extended Kalman Filter. In *Proceedings of 2004 IEEURSJ International Conference on Intelligent Robots and Systems September 28 - October 2,2004, Sendai, Japan*, 2004.

[29] E. Auer, R. Cuypers, E. Dyllong, S. Kiel, and W. Luther. Verifcation and validation for femur prosthesis surgery. In *Dagstuhl Seminar Proceedings 09471: Computer-assisted proofs—tools, methods and applications*, 2010. `http://drops.dagstuhl.de/opus/volltexte/2010/2513`.

[30] E. Auer, W. Luther, G. Rebner, and P. Limbourg. A Verifed MATLAB Toolbox for the Dempster-Shafer Theory. submitted for publication in Proc. of the Workshop on the Theory of Belief Functions, 2010. `http://www.scg.inf.uni-due.de/fileadmin/Projekte/Dempster/literature/A_Verified_MATLAB_Toolbox_for_the_Dempster-Shafer_Theory.pdf`.

[31] E. Auer, A. Rauh, E.P. Hofer, and W. Luther. Validated Modeling of Mechanical Systems with SmartMOBILE: Improvement of Performance by ValEncIA-IVP. In *Proc. of the Dagstuhl Seminar 06021: Reliable Implementation of Real Number Algorithms: Theory and Practice*, volume 5045 of *Lecture Notes in Computer Science*, pages 1–27. Springer, 2008. `http://books.google.de/books?hl=de&lr=&id=_GO2yLXsvXsC&oi=fnd&pg=PA1&dq=INTLAB&ots=PPa1pqEbI8&sig=k_A5-ztnfB8S-Jj-3pYoGchkORc#v=onepage&q=INTLAB&f=false`.

[32] P. Azunre. *A Parallel Branch-and-Bound Algorithm for Thin-Film Optical Systems, with Application to Realizing a Broadband Omnidirectional Antire*. Theses, Massachusetts Institute of Technology, Electrical Engineering and Computer Science, 2014. Available from `http://dspace.mit.edu/handle/1721.1/96436#files-area`.

[33] I. Babuska and K.-M. Liu. Interval arithmetic error estimation for the solution of Fredholm integral equation. *International Journal of Computer Mathematics*, 86(3):549–566, 2009. DOI: 10.1080/00207160802624729, `http://portal.acm.org/citation.cfm?id=1513810`.

[34] N.A. Bakar, M. Monsi, M.A. Hassan, and W.J. Leong. An Improved Parameter Regula Falsi Method for Enclosing a Zero of a Function. *Applied Mathematical Sciences*, 6(28):1347–1361, 2011. `http://www.m-hikari.com/ams/forth/hassanAMS25-28-2012.pdf`.

[35] P. Bakhtiari, T. Lotfi, K. Mahdiani, and F. Soleymani. Interval ostrowski-type methods with guaranteed convergence. *ANNALI DELL'UNIVERSITA' DI FERRARA*, 59(2):221–234, 2013. `http://dx.doi.org/10.1007/s11565-012-0174-4`.

[36] I. Balázs, B.J. Van Den Berg, J. Courtois, J. Dudàs, J.-P. Lessard, A. Vörös-Kiss, J. Williams, and X. Yuan. Computer-assisted proofs for radially symmetric solutions of PDEs. `https://www.researchgate.net/publication/312890988_Computer-assisted_proofs_for_radially_symmetric_solutions_of_PDEs`, 2017.

[37] O. Bandte. A broad and narrow approach to interactive evolutionary design—An aircraft design example. *Applied Soft Computing*, 9(1):448–455, 2009. doi:10.1016/j.asoc.2007.11.007.

[38] L.V. Barboza and G.P. Dimuro. Power Flow with Load and Generation Uncertainty: An Approach Based on Interval Mathematics. `http://ppginf.ucpel.tche.br/gracaliz/arquivos-download/Papers/2006/fid00259.pdf`.

[39] L.V. Barboza, G.P. Dimuro, and R.H.S. Reiser. Power Flow with Load Uncertainty. *TEMA Tend. Mat. Apl. Comput.*, 5(1):27–36, 2004. `http://www.dcce.ibilce.unesp.br/sbmac_regional_XI/Vol5_1/barboza.pdf`.

[40] L.V. Barboza, G.P. Dimuro, and R.H.S. Reiser. Towards interval analysis of the load uncertainty in power electric systems. In *International Conference on Probabilistic Methods Applied to Power Systems, 2004*, 2004. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1378745`.

[41] B. Barker and K. Zumbrun. Numerical proof of stability of viscous shock profiles. *Mathematical Models and Methods in Applied Sciences*, 26(13):2451–2469, 2016. `https://doi.org/10.1142/S0218202516500585`.

[42] M. Bartl, P. Li, and L.T. Biegler. Improvement of state profile accuracy in nonlinear dynamic optimization with the quasi-sequential approach. *AIChE Journal*, 2010. `http://onlinelibrary.wiley.com/doi/10.1002/aic.12437/abstract`.

[43] D.J. Bates, J.D. Hauenstein, A.J. Sommese, and C.W. Wampler. Adaptive multiprecision path tracking. *SIAM J. Numer. Anal.*, 46(2), 2008. `http://www.nd.edu/~sommese/preprints/bhswAMP.pdf`.

[44] A.G. Baydin, B.A. Pearlmutter, and A.A. Radul. Automatic differentiation in machine learning: a survey. *CoRR*, abs/1502.05767, 2015. `http://arxiv.org/abs/1502.05767`.

[45] S. Becuwe and A. Cuyt. On the fast solution of Toeplitz-block linear systems arising in multivariate approximation theory. *Numerical Algorithms*, 43(1):1–24, 2006. `http://www.springerlink.com/content/q6683vv1l126805g/fulltext.pdf`.

[46] T. Beelitz, A. Frommer, B. Lang, and P. Willems. A Framework for Existence Tests Based on the Topological Degree and Homotopy. *Numer. Math.*, 111(4):493–507, 2009. `http://www.springerlink.com/content/p7455x0mg425746m/`.

[47] F. Benhamou and L. Granvilliers. Continuous and interval constraints. In F. Rossi, P. van Beek, and Walsh T., editors, *Handbook of Constraint Programming*, volume 2 of *Foundations of Artificial Intelligence*, pages 571–603. Elsevier B.V., 2006. `http://dx.doi.org/10.1016/S1574-6526(06)80020-9`.

[48] J.B.v.d. Berg and R. Sheombarsing. Validated computations for connecting orbits in polynomial vector fields. Indagationes Mathematicae 31(2). `http://dx.doi.org/10.1016/S1574-6526(06)80020-9`.

[49] M.K. Bernauer and R. Griesse. A robustification approach in unconstrained quadratic optimization. *Math. Program., Ser. A*, 128(1–2):231–252, 2009. DOI 10.1007/s10107-009-0302-9, `10.1016/j.indag.2020.01.007`.

[50] A. Birkisson and T.A. Driscoll. Automatic Frechet differentiation for the numerical solution of boundary-value problems. Technical report, ACM, 2010. `http://eprints.maths.ox.ac.uk/1023/`.

[51] J. Birrell. A Posteriori Error Bounds for Two Point Boundary Value Problems: A Green's Function Approach. eprint arXiv:1410.0785, Bibliographic Code: 2014arXiv1410.0785B, 2014.

[52] Å. Björck. Direct Methods for Linear Systems. In *Numerical Methods in Matrix Computations*, volume 59 of *Texts in Applied Mathematics*, pages 1–209. Springer International Publishing, 2015. `http://dx.doi.org/10.1007/978-3-319-05089-8_1`.

[53] R. Bobiti and M. Lazar. Sampling-based verification of lyapunov's inequality for piecewise continuous nonlinear systems. *CoRR*, abs/1609.00302, 2016. `http://arxiv.org/abs/1609.00302`.

[54] R. Bobiti and M. Lazar. Automated sampling-based stability verification and doa estimation for nonlinear systems. *IEEE Transactions on Automatic Control*, pages 1–1, 2018. doi:10.1109/TAC.2018.2797196.

[55] B. Bocquillon. *Contributions à l'autocalibrage des caméras: modélisations et solutions garanties par l'analyse d'intervalle*. PhD thesis, Université de Toulouse, 2008. `http://thesesups.ups-tlse.fr/600/1/Bocquillon_Benoit.pdf`.

[56] G. Bohlender, M. Lüderitz Kolberg, and D.M. Claudio. Modifications to Expression Evaluation in C-XSC. Technical Report 2005/5, Bergische Universität Wuppertal, Wissenschaftliches Rechnen/Softwaretechnologie, 2005. `http://www.math.uni-wuppertal.de/~xsc/preprints/prep_05_5.pdf`.

[57] R.A. Borba and T.S.P. Fernandes. Interval Mathematics Applied to Multiperiod Optimal Power Flow. Conference: 2023 15th IEEE International Conference on Industry Applications (INDUSCON). `DOI: 10.1109/INDUSCON58041.2023.10374640`.

[58] F. Bornemann, D. Laurie, S. Wagon, and J. Waldvogel. *The SIAM 100-Digit Challenge—A Study in High-Accuracy Numerical Computing*. SIAM, Philadelphia, 2004.

[59] F. Bornemann, D. Laurie, S. Wagon, and J. Waldvogel. *Vom Lösen numerischer Probleme: Ein Streifzug entlag der "SIAM 100-Digit Challenge"*. Springer Berlin-Heidelberg, 2006.

[60] R. Boukkezola and M. Abulizi. Practical Considerations on the Solution of First Order Fuzzy Equations. *Fuzzy Systems and Mathematics*, 03, 2005. `http://scholar.ilib.cn/Abstract.aspx?A=mhxtysx200503016`.

[61] I. Braems, S. Franger, and F. Berthier. Reliable Discrimination of Models Based on EIS Data. *J. Electrochem. Soc.*, 156(5):J81–J91, 2009. `http://dx.doi.org/10.1149/1.3082127`.

[62] J.M. Bravo, T. Alamo, M.J. Redondo, and E.F. Camacho. An algorithm for bounded-error identification of nonlinear systems based on DC Functions. accepted for publication to Automatica,`http://www.esi2.us.es/~alamo/Archivos/Certificaciones/Sec_8_Articulos_Revista/2007/Automatica_DC_Bravo_07.pdf`, 2007.

[63] J.M. Bravo, D. Limon, T. Alamo, and E.F. Camacho. On the computation of invariant sets for constrained nonlinear systems: an interval arithmetic approach. *Automatica*, 41(9):1583–1589, 2005. `http://www.esi2.us.es/~limon/papers/BravoAUT05.pdf`.

[64] M. Breden and R. Castelli. Existence and instability of steady states for a triangular cross-diffusion system: A computer-assisted proof. *Journal of Differential Equations*, 264(10):6418–6458, 2018. `http://www.sciencedirect.com/science/article/pii/S0022039618300500`.

[65] M. Breden and J.-P. Lessard. Polynomial interpolation and a priori bootstrap for computer-assisted proofs in nonlinear ODEs. `https://arxiv.org/abs/1704.03128`, 2017.

[66] M. Breden. A Posteriori Validation of Generalized Polynomial Chaos Expansions. *SIAM Journal on Applied Dynamical Systems*, 22(2):765–801, 2023.

[67] F. Brehard amd A. Poteaux and L. Soudant. Validated Root Enclosures for Interval Polynomials with Multiplicities. *ISSAC 2023: International Symposium on Symbolic and Algebraic Computation* , 2023.

[68] Florian Bünger. Verified solutions of two-point boundary value problems for nonlinear oscillators. *Nonlinear Theory and Its Applications, IEICE*, 2(1):90–110, 2011. `http://www.jstage.jst.go.jp/article/nolta/2/1/2_90/_article`.

[69] F. Bünger. Reducing the truncation error in Taylor model multiplication. Numerical Algorithms. 2024. `DOI:10.1007/s11075-023-01725-4`.

[70] J. Burgos-Garcia, J. P. Lessard, and J. Mireles James. Spatial periodic orbits in the equilateral circular restricted four body problem: computer assisted proofs of existence. Preprint `http://cosweb1.fau.edu/~jmirelesjames/spatialPeriodicOrbitsCRFBP.html`, submitted, 2018.

[71] M.J.. Capinski and S. Kepley and J. Mireles James. Computer Assisted Proofs for Transverse Collision and Near Collision Orbits in the Restricted Three Body Problem. SSRN Electronic Journal, 2024. `DOI:10.2139/ssrn.4671783`.

[72] R. Castelli. The monotonicity of the apsidal angle in power-law potential systems. *Journal of Mathematical Analysis and Applications*, 428(1):653–676, 2015.

[73] M.J. Capinski and S. Kepley and J.D.M. James. Computer assisted proofs for transverse collision and near collision orbits in the restricted three body problem. *Journal of Differential Equations*, 366(1–2):132–191, 2023. `DOI:10.1016/j.jde.2023.03.053`

[74] R. Castelli, M. Gameiro, and J.-P. Lessard. Rigorous numerics for ill-posed PDEs: periodic orbits in the Boussinesq equation. `http://arxiv.org/pdf/1509.08648.pdf`, 2015.

[75] R. Castelli and J.-P. Lessard. A method to rigorously enclose eigendecompositions of interval matrices, 2011. `http://arxiv.org/abs/1112.5052`.

[76] R. Castelli, J.-P. Lessard, and J.D. Mireles James. Analytical Enclosure of the Fundamental Matrix-Solution. In *Conference Applications of Mathematics 2015, in honor of the birthday anniversaries of Babuška (90), Práger (85) and Vitásek (85), Institute of Mathematics AS CR, Prague*, 2015. `http://archimede.mat.ulaval.ca/jplessard/Publications_files/analytic_floquet.pdf`.

[77] R.C. Cely, D.V. Ardila, and K.S. Barragán-Niño. Comparación de las técnicas de optimización por análisis de intervalos y la de enjambre de partículas para funciones con restricciones. *Revista Ingeniería y Universidad*, 15(1), 2011. `http://revistas.javeriana.edu.co/index.php/IyU/article/viewArticle/1132`.

[78] D. Chaykin. *Verification of Semidefinite Optimization Problems with Application to Variational Electronic Structure Calculation.* PhD thesis, Technischen Universität Hamburg-Harburg, 2009. `http://doku.b.tu-harburg.de/volltexte/2010/938/pdf/Chaykin_Dissertation.pdf`.

[79] J. Chakravarty and M. Saha. *Generalized interval AOR method for solving interval linear equations.* Mathematical Foundations of Computing. `DOI:10.3934/mfc.2023035`.

[80] X. Chen. Numerical Verification Methods for Spherical t-Designs. *Japan J. Indust. Appl. Math.*, 26(2):317–325, 2009. `http://projecteuclid.org/DPubS?service=UI&version=1.0&verb=Display&handle=euclid.jjiam/1265033784`.

[81] X. Chen, A. Frommer, and B. Lang. Computational existence proofs for spherical t-designs. *Numer. Math.*, 117(2):289–305, 2011. DOI: 10.1007/s00211-010-0332-5, `http://www.springerlink.com/content/41674453126n618u/`.

[82] X. Chen, Y. Shogenji, and M. Yamasaki. Verification for existence of solutions of linear complementarity problems. *Linear Algebra and its Applications (LAA)*, 324(1–3):15–26, 2001. `http://dx.doi.org/10.1016/S0024-3795(99)00272-4`.

[83] X. Chen and Z. Wang. Computational error bounds for a differential linear variational inequality. *IMA J. Numer. Anal.*, 31(4), 2011. doi: 10.1093/imanum/drr009 `http://imajna.oxfordjournals.org/content/early/2011/09/02/imanum.drr009.abstract`.

[84] X. Chen and R.S. Womersley. Existence of solutions to systems of underdetermined equations and spherical designs. *SIAM J. Numer. Anal.*, 44(6):2326–2341, 2006. `http://www.polyu.edu.hk/ama/staff/xjchen/ReprintsB5.pdf`.

[85] Y. Chen and N. Zhou and Z. Zhang.. Modified Eigen-Decomposition-Based Interval Analysis (MEDIA) for Power System Dynamic State Estimation. *Power Systems, IEEE Transactions on PP*, 99:1–11, 2024. `DOI:10.1109/TPWRS.2023.3299463`.

[86] J.-M. Chesneaux, S. Graillat, and Jézéquel. Numerical validation and assessment of numerical accuracy. `http://www-pequan.lip6.fr/~graillat/papers/oerc_numerical_accuracy.pdf`.

[87] E. Chiavazzo. *Invariant Manifolds and Lattice Boltzmann Method for Combustion.* PhD thesis, ETH Zurich, 2009. A dissertation for the Degree of Doctor of Science, `http://e-collection.ethbib.ethz.ch/eserv.php?pid=eth:41898&dsID=eth-41898-02.pdf`.

[88] K. Church and E. Queirolo Computer-Assisted Proofs of Hopf Bubbles and Degenerate Hopf Bifurcations. *Journal of Dynamics and Differential Equations*, 2023. `DOI:10.1007/s10884-023-10279-x`.

[89] V. Chousionis, D. Leykekhman, and M. Urbański. The dimension spectrum of graph directed Markov systems. arXiv:1802.01125 [math.DS], 2018.

[90] P. Collins and A. Goldsztejn. The Reach-and-Evolve Algorithm for Reachability Analysis of Nonlinear Dynamical Systems. *Electronic Notes in Theoretical Computer Science*, 223:87–102, 2008. doi:10.1016/j.entcs.2008.12.033.

[91] C. Combastel. A State Bounding Observer for Uncertain Non-linear Continuous-time Systems based on Zonotopes. In *44th IEEE Conference on Decision and Control, 2005 and 2005 European Control Conference CDC-ECC '05*, 2005. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1583327`.

[92] G.A. Constantinides, N. Nicolici, and A.B. Kinsman. Numerical Data Representations for FPGA-Based Scientific Computing. *Design Test of Computers, IEEE*, 28(4):8–17, 2011. doi:10.1109/MDT.2011.48, `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5765909&tag=1`.

[93] G.F. Corliss, R.B. Kearfott, N. Nedialkov, J.D. Pryce, and S. Smith. Interval Subroutine Library Mission. In *Reliable Implementation of Real Number Algorithms: Theory and Practice*, volume 5045 of *Lecture Notes in Computer Science*, pages 28–43. Springer, 2008. `http://www.springerlink.com/content/cg23630118955805/references/`.

[94] G.F. Corliss, R.B. Kearfott, N. Nedialkov, S. Smith, and J.D. Pryce. Toward an Interval Subroutine Library, Draft. `http://homepage.ntlworld.com/j.d.pryce/isloct05/050323ISLpositionpaper.pdf`, 2005.

[95] G.F. Corliss and J. Yu. Testing COSY's Interval and Taylor Model Arithmetic. `http://www.eng.mu.edu/corlissg/Pubs/COSYtest/Latex/03052Paper/test_cosy_paper.ps`.

[96] G.F. Corliss and J. Yu. Interval Testing Strategies Applied to COSY's Interval and Taylor Model Arithmetic. In *Numerical Software with Result Verification*, number 2991/2004 in Lecture Notes in Computer Science, pages 91–106. Verlag Springer Berlin Heidelberg, 2004. `http://www.springerlink.com/content/g0evcm7x0rkuvf08/fulltext.pdf`.

[97] T. Csendes. Interval Analysis and Verification of Mathematical Models. In *Uncertainties in Environmental Modelling and Consequences for Policy Making*, NATO Science for Peace and Security Series C: Environmental Security, pages 79–100. Springer, 2009. `http://www.inf.u-szeged.hu/~csendes/natobookCsendes.pdf`.

[98] T. Csendes, L. Pál, and M.C. Markót. A Global Optimization Algorithm for Intlab. 13th International Symposium on Scientifc Computing, Computer Arithmetic and Verifed Numerical Computations (SCAN'2008), El Paso, Texas, 2008, 2008. `http://www.cs.utep.edu/interval-comp/scan08.pdf#page=31`.

[99] G. Dahlquist and Å. Björck. Numerical Methods in Scientific Computing, Volume I. Workingcopy, September 24, 2007, Royal Institute of Technology Linköping University, `http://www.mai.liu.se/~akbjo/dqbjVol1.pdf`, 2007.

[100] G. Dahlquist and Å. Björck. Numerical Methods in Scientific Computing, Volume II. Workingcopy, November 8, 2007, Royal Institute of Technology Linköping University, `http://www.mai.liu.se/~akbjo/dqbjVol2.pdf`, 2007.

[101] L. D'Ambrosio, J.-P. Lessard, and A. Pugliese. Blow-up profile for solutions of a fourth order nonlinear equation. *Nonlinear Analysis: Theory, Methods & Applications*, 121:280–335, 2015. Nonlinear Partial Differential Equations, in honor of Enzo Mitidieri for his 60th birthday, `http://www.sciencedirect.com/science/article/pii/S0362546X14004301`.

[102] C. Daney, N. Andreff, and Y. Papegay. Interval Method for Calibration of Parallel Robots: A Vision-based Experimentation. In *Proceedings of CK2005, International Workshop on Computational Kinematics, Cassino, May4-6, 2005*, 2005. `ftp://ftp-sop.inria.fr/coprin/daney/articles/19-CK2005.pdf`.

[103] C. Daney, Y. Papegay, and A. Neumaier. Interval Methods for Certification of the Kinematic Calibration of Parallel Robots. In *Proceedings of the 2004 IEEE International Conference on Robotics & Automation, New Orleans, LA, April 2004*, 2004. `ftp://ftp-sop.inria.fr/coprin/daney/articles/icra2004.pdf`.

[104] E. Darulová. *Programming with Numerical Uncertainties*. PhD thesis, IC, Lausanne, 2014. `http://infoscience.epfl.ch/record/203570/files/EPFL_TH6343.pdf`.

[105] S. Day, R. Frongillo, and R. Trevinño. Algorithms for Rigorous Entropy Bounds and Symbolic Dynamics. *SIAM J. Appl. Dyn. Syst.*, 7(4):1477–1506, 2008. `http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.126.4452&rep=rep1&type=pdf`.

[106] F. de Dinechin and S. Maidanov. Software techniques for perfect elementary functions in floating-point interval arithmetic. In *Real Numbers and Computers*, 2006. `http://perso.ens-lyon.fr/florent.de.dinechin/recherche/publis/2006-RNC.pdf`.

[107] R. de la Llave and J. Mireles James. Connecting Orbits for Compact Infinite Dimensional Maps: Computer Assisted Proofs of Existence. *SIAM Journal on Applied Dynamical Systems*, 15(2):1268–1323, 2016. `https://doi.org/10.1137/15M1053608`.

[108] D. de Pereda, S. Romero-Vivo, and J. Bondia. On the computation of output bounds on parallel inputs pharmacokinetic models with parametric uncertainty. *Mathematical and Computer Modelling*, 2011. 10.1016/j.mcm.2011.11.03, `http://www.sciencedirect.com/science/article/pii/S0895717711007163`.

[109] R. R. de Vargas, C. M. de Farias, L. V. Barboza, and G. P. Dimuro. Incerteza de Dados em Fluxo de Potência: uma Abordagem com a Matemática Intervalar do C-XSC. *TEMA Tend. Mat. Apl. Comput.*, 9(3):491–502, 2008. `http://www.sbmac.org.br/tema/seletas/docs/v9_3/Var_Far_Bar_Dim.pdf`.

[110] M. Dehghani-Madiseh and M. Dehghan. Generalized solution sets of the interval generalized Sylvester matrix equation and some approaches for inner and outer estimations. *Computers & Mathematics with Applications*, 68(12, Part A):1758–1774, 2014. `http://www.sciencedirect.com/science/article/pii/S089812211400501X`.

[111] M. Dehghani-Madiseh and M. Dehghan. Parametric AE-solution sets to the parametric linear systems with multiple right-hand sides and parametric matrix equation $A(p)X = B(p)$. *Numerical algorithms*, (2016):1–35, 2016. `http://dx.doi.org/10.1007/s11075-015-0094-3`.

[112] M. Dehghani-Madiseh. An efficient approach for enclosing the solution set of the interval coupled Sylvester matrix equations. *Linear and Multilinear Algebra*, 2023. `http://dx.doi.org/10.1080/03081087.2023.2236773`.

[113] V. Dekys, A. Sapietova, M. Vasko, and R. Kocur. Comparison the results based on interval numbers, fuzzy setz method and probability approach. *Annals of the University of Petroşani, Mechanical Engineering*, 8:11–22, 2006. `http://upet.ro/annals/mechanical/pdf/2006/Annals-Mechanical-Engineering-2006-a2.pdf`.

[114] A. Del Sole Lordelo and FazzolariH.A. On interval goal programming switching surface robust design for Integral Sliding Mode Control. *Control Engineering Practice*, 32:136–146, 2014. `http://www.sciencedirect.com/science/article/pii/S0967066114001890`.

[115] A. Derghal, N. Goléa, and N. Essounbouli. An Interval Fuzzy Optimization-Based Technique to Optimal Generation Scheduling with Load Uncertainty. *IFAC-PapersOnLine*, 49(12):1122–1127, 2016. 8th IFAC Conference on Manufacturing Modelling, Management and Control MIM 2016, `http://www.sciencedirect.com/science/article/pii/S2405896316309211`.

[116] N. Dessart. Arithmétique par intervalles, résolution de systémes linéaires et précision. Technical Report DEA2004-04, Laboratoire de l'Informatique du Parallélisme (LIP), 2004. `http://www.ens-lyon.fr/LIP/Pub/Rapports/DEA/DEA2004/DEA2004-04.pdf`.

[117] P. Di Lizia, M. Lavagna, and A.E. Finzi. Multiobjective global optimization of space mission design using evolutionary methods and interval analysis. submitted for acceptance to the 55th International Astronautical Congress to be held in Vancouver- Oct. 2004, `http://www.aiaa.org/content.cfm?pageid=406&gTable=Paper&gID=42635`.

[118] N.H. Diep and N. Revol. Solving and Certifying the Solution of a Linear System. *Reliable Computing*, 15(2):120–131, 2011. `http://interval.louisiana.edu/reliable-computing-journal/volume-15/no-2/reliable-computing-15-pp-120-131.pdf`.

[119] F. Domes. GLOPTLAB: a configurable framework for the rigorous global solution of quadratic constraint satisfaction problems. *Optimization Methods and Software*, 24(4–5):727–747, 2009. DOI: 10.1080/10556780902917701, `http://www.informaworld.com/smpp/content~db=all~content=a913749556~tab=content`.

[120] F. Domes and A. Goldsztejn. A branch and bound algorithm for quantified quadratic programming. *Journal of Global Optimization*, 68(1):1–22, 2017. `https://doi.org/10.1007/s10898-016-0462-0`.

[121] F. Domes and A. Neumaier. Verified global optimization with GLOPTLAB. *PAMM*, 7(1), 2007. `http://onlinelibrary.wiley.com/doi/10.1002/pamm.200701116/abstract`.

[122] F. Domes and A. Neumaier. Rigorous filtering using linear relaxations. Journal of Global Optimization, online first, 2010. DOI: 10.1007/s10898-011-9722-1, `http://www.springerlink.com/content/f11305x013x66272/`.

[123] A. Dovier, M. Farenzena, and A. Fusiello. Interval-based Modelling with Constraints Propagation. `http://profs.sci.univr.it/~fusiello/papers/intcp05.pdf`.

[124] G.W. Duchesne, J.-P. Lessard and A. Takayasu. A rigorous integrator and global existence for higher-dimensional semilinear parabolic PDEs via semigroup theory.

[125] I. Eble and M. Neher. ACETAF: A software package for computing validated bounds for Taylor coefficients of analytic functions. *ACM Transactions on Mathematical Software (TOMS)*, 29(3):263–286, 2003. `http://portal.acm.org/citation.cfm?doid=838250.838252`.

[126] W. Edmonson and G. Melquiond. IEEE Interval Standard Working Group - P1788: Current Status. In *19th IEEE Symposium on Computer Arithmetic (arith), 2009*, pages 231–234, 2009. `http://doi.ieeecomputersociety.org/10.1109/ARITH.2009.36`.

[127] T. Eftekhari. Producing an interval extension of the King method. *Applied Mathematics and Computation*, 260:288–291, 2015.

[128] G. Eichfelder, T. Gerlach, and S. Sum. A modication of the alphaBB method for box-constrained optimization and an application to inverse kinematics. *EURO Journal on Computational Optimization*, 4(1):93–121, 2016. Available from `http://www.db-thueringen.de/servlets/DerivateServlet/Derivate-31742/IfM_Preprint_M_15_04.pdf`

[129] G. Eichfelder, K. Klamroth, and J. Niebling. Nonconvex Constrained Optimization by a Filtering Branch and Bound. *Journal of Global Optimization*, 80, 31–61, 2021.

[130] G. Eichfelder, J. Niebling and Rocktäschel, S.. An algorithmic approach to multiobjectice optimization with decision uncertainty. *Journal of Global Optimization*, 77, 3–25, 2020.

[131] G. Eichfelder, O. Stein and L. Warnow. A Solver for Multiobjective Mixed-Integer Convex and Nonconvex Optimization. *Journal of Global Optimization*, 2023. `https://doi.org/10.1007/s10957-023-02285-2`.

[132] G. Eichfelder and L. Warnow. A hybrid patch decomposition approach to compute an enclosure for multi-objective mixed-integer convex optimization problems. *Mathematical Methods of Operations Research*, 2023. `https://doi.org/10.1007/s00186-023-00828-x`.

[133] A. Elham. Adjoint quasi-three-dimensional aerodynamic solver for multi-fidelity wing aerodynamic shape optimization. *Aerospace Science and Technology*, 41:241–249, 2015. `http://dx.doi.org/10.1016/j.ast.2014.12.024`.

[134] R. Endo and X. Liu. Shape optimization for the Laplacian eigenvalue over triangles and its application to interpolation error analysis Journal of Differential Equations. 376(3):750–772. `DOI:10.1016/j.jde.2023.09.016`.

[135] A. Elham and M. van Tooren. Tool for preliminary structural sizing, weight estimation, and aeroelastic optimization of lifting surfaces. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 2015. Available from `http://pig.sagepub.com/content/early/2015/06/17/0954410015591045.full.pdf+html`.

[136] G. Fainekos, S. Sankaranarayanan, F. Ivancic, and A. Gupta. Robustness of Model-Based Simulations. In *30th IEEE Real-Time Systems Symposium, (rtss) 2009*, pages 345–354, 2009. `http://doi.ieeecomputersociety.org/10.1109/RTSS.2009.26`.

[137] C. Fang Fang. *Probabilistic Interval-Valued Computation: Representing and Reasoning about Uncertainty in DSP and VLSI Design*. PhD thesis, Dept. of Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, 2005. `http://amp.ece.cmu.edu/Publication/Fang/Fang_thesis_complete_2005.pdf`.

[138] I. Faragó. Numerical Treatment of Linear Parabolic Problems. Dissertation submitted to The Hungarian Academy of Sciences for the degree "MTA Doktora", 2008. `http://www.cs.elte.hu/~faragois/mtadoktori/disszertacio.pdf`.

[139] I. Faragó and C. Palencia. Sharpening the estimate of the stability constant in the maximum-norm of the Crank Nicolson scheme for the one-dimensional heat equation. In *Numerical Solution of Differential and Differential-Algebraic Equations, 4-9 September 2000, Halle, Germany*, volume 42 of *Applied Numerical Mathematics*, pages 133–140, 2002. `http://dx.doi.org/10.1016/S0168-9274(01)00146-5`.

[140] M. Farenzena, A. Busti, A. Fusiello, and A. Benedetti. Rigorous accuracy bounds for calibrated stereo reconstruction. In *Proceedings of the 17th International Conference on Pattern Recognition (ICPR)*, volume 4, pages 288–292, 2004. `http://ieeexplore.ieee.org/search/wrapper.jsp?arnumber=1333760`.

[141] R.A. Fasani and M.A. Savageau. Finding the Steady States of Nonlinear Systems using the Canonical S-system Form. `http://cnls.lanl.gov/q-bio/wiki/images/4/4a/098_Fasani.pdf`.

[142] M. Fiedler, J. Nedoma, J. Ramik, J. Rohn, and K. Zimmermann. *Linear Optimization Problems with Inexact Data*. Springer-Verlag, New York, 2006.

[143] H. Filiol. *Méthodes d'analyse de la variabilité et de conception robuste des circuits analogiques dans les technologies CMOS avancées*. PhD thesis, CPE Lyon, 2010. `http://tel.archives-ouvertes.fr/docs/00/56/06/10/PDF/filiol_manuscrit_these.pdf`.

[144] N.R.S. Filipe. Terminal Area Energy Management Trajectory Optimization using Interval Analysis. Master's thesis, Faculty of Aerospace Engineering, Delft University of Technology, 2008. `http://repository.tudelft.nl/assets/uuid:38b137be-3afc-4fbb-a1ad-0fdb6eeb451e/ae_filipe_2008.pdf`.

[145] C.A. Floudas and O. Stein. The adaptive convexification algorithm: A feasible point method for semi-infinite programming. *SIAM J. Optim. (SIMOPT)*, 18(4):1187–1208, 2007. `http://kop.ior.kit.edu/downloads/Flo06S.pdf`.

[146] L.C. Foguth, J.A. Paulson, R.D. Braatz, and D.M. Raimondo. Fast Robust Model Predictive Control of High-dimensional Systems. Conference paper, The 14th European Control Conference (ECC15), At Linz, Austria, 2015, available from J.A. Paulson: `http://www.researchgate.net/profile/Joel_Paulson/publication/276920470_Fast_Robust_Model_Predictive_Control_of_High-dimensional_Systems/links/555ba2a108ae6aea0816c901.pdf`, 2015.

[147] C. Fonte. *Entidades Geográficas Difusas Métodos de Construção e Processamento*. PhD thesis, Universidade de Coímbra, 2003. `http://www.mat.uc.pt/~cfonte/Investigacao/tese_PhD.pdf`.

[148] C.C. Fonte and W.A. Lodwick. Modelling the Fuzzy Spatial Extent of Geographical Entities. In F.E. Petry, V.B. Robinson, and M.A. Cobb, editors, *Fuzzy Modeling with Spatial Information for Geographic Problems*, chapter 6, pages 121–142. Springer Berlin Heidelberg, 2005. `http://www.springerlink.com/content/p3n5m26774784481/fulltext.pdf`.

[149] С. П. Шарый. О сравнении теорем Апостолатоса-Кулиша и Майера-Варнке в интервальном анализе. *Сибирский журнал вычислительной математики*, 12(3):351–359, 2009. `http://www.sscc.ru/sibjnm/R_cont09.html`.

[150] T.H. Franke, R.H.W. Hoppe, Ch. Linsenmann, and A. Wixforth. Projection Based Model Reduction for Optimal Design of the Time-Dependent Stokes System. Technical Report 02/2010, Institut für Mathematik, Universität Augsburg, 2010. `http://opus.bibliothek.uni-augsburg.de/volltexte/2010/1520/pdf/mpreprint_10_002.pdf`.

[151] S. Friedland, D. Hershkowitz, and S.M. Rump. Positive entries of stable matrices. *Electronic Journal of Linear Algebra (ELA)*, 12:17–24, 2005. `http://www.ti3.tu-harburg.de`.

[152] A. Frommer and B. Hashemi. Verified Computation of Square Roots of a Matrix. Technical Report BUW-SC 10/3, Bergische Universität Wuppertal, Fachbereich C—Mathematik und Naturwissenschaften, Mathematik, 2010. `http://www.math.uni-wuppertal.de/SciComp/`.

[153] A. Frommer and B. Hashemi. Verifed Error Bounds for Solutions of Sylvester Matrix Equations. *Linear Algebra and its Applications (LAA)*, 436(2):405–420, 2012. `http://www.sciencedirect.com/science/article/pii/S0024379510006300`.

[154] A. Frommer, F. Hoxha, and B. Lang. Proving the existence of zeros using the topological degree and interval arithmetic. In *Special Issue on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 2004)*, volume 199 of *Journal of Computational and Applied Mathematics (JCAM)*, pages 397–402, 2007. `http://dx.doi.org/10.1016/j.cam.2005.07.030`.

[155] A. Frommer and B. Lang. Fast and Accurate Multi-Argument Interval Evaluation of Polynomials. *Scientific Computing, Computer Arithmetic and Validated Numerics, International Symposium on*, 0:31, 2006. `http://www.computer.org/portal/web/csdl/doi/10.1109/SCAN.2006.18`.

[156] A. Frommer and V. Simoncini. Stopping Criteria for Rational Matrix Functions of Hermitian and Symmetric Matrices. *SIAM J. Sci. Comput.*, 30(3):1387–1412, 2008. `http://www-ai.math.uni-wuppertal.de/SciComp/preprints/SC0701.pdf`.

[157] A. Frommer and V. Simoncini. Error Bounds for Lanczos Approximations of Rational Functions of Matrices. In *Numerical Validation in Current Hardware Architectures*, volume 5492 of *Lecture Notes in Computer Science*. Springer, 2009. DOI 10.1007/978-3-642-01591-5_13, `http://www.springerlink.com/content/128n555n2453kk00/`.

[158] R. Frongillo and R. Treviño. Efficient automation of index pairs in computational Conley index theory. *ArXiv e-prints*, 2010. `http://adsabs.harvard.edu/abs/2010arXiv1008.3918F`.

[159] A. Fusiello, M. Farenzena, A. Busti, and A. Benedetti. Computing rigorous bounds to the accuracy of calibrated stereo reconstruction [computer vision applications]. In *Vision, Image and Signal Processing*, volume 152 of *IEE Proceedings*, pages 695–701, 2005. DOI: 10.1049/ip-vis:20041054.

[160] S. Gabriele. The interval intersection method for FE model updating. *Journal of Physics: Conference Series*, 305(1), 2011. doi:10.1088/1742-6596/305/1/012091, `http://iopscience.iop.org/1742-6596/305/1/012091`.

[161] S. Gabriele, F. Brancaleoni, and D. Spina. Model updating of Pescara Benchmark: interval vs. traditional method. *Journal of Physics: Conference Series*, 305(1), 2011. doi:10.1088/1742-6596/305/1/012083, `http://iopscience.iop.org/1742-6596/305/1/012083`.

[162] S. Gabriele and C. Valente. An interval based technique for FE model updating. *International Journal of Reliability and Safety*, 3(1-3):79–103, 2009. `http://inderscience.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,5,17;journal,3,9;linkingpublicationresults,1:120312,1`.

[163] S. Galdino and P. Maciel. Interval Generalized Stochastic Petri Net Models in Performance Evaluation. In *IEEE International Conference on Systems, Man and Cybernetics, ICSMC '06*, volume 4 of *IEE Proceedings*, pages 2723–2728, 2006. `http://www.cin.ufpe.br/~prmm/info/smc_final.pdf`.

[164] S.M.L. Galdino, P.R.M. Maciel, and N.S. Rosa. Interval Markovian Models in Dependability Evaluation. *International Journal of Pure and Applied Mathematics*, 41(2):151–176, 2007.

[165] J. Garloff. Pivot tightening for direct methods for solving symmetric positive definite systems of linear interval equations. Computing, online first, 2011. DOI: 10.1007/s00607-011-0159-7, `http://www.springerlink.com/content/1811801646910k63/`.

[166] D.I. Gerogiorgis. Rapid Interval Arithmetic Screening of Continuous Pharmaceutical Processes with Explicit Thermodynamics, 2010. `http://www.aicheproceedings.org/2010/Fall/data/papers/Paper202771.html`.

[167] M. Glomski and B. Hassard. Uniqueness of the Critical Rayleigh and Wave Numbers for the Inhomogeneous Planar Bénard Problem. *Applied Mathematical Sciences*, 5(16):747–762, 2011. `http://m-hikari.com/ams/ams-2011/ams-13-16-2011/glomskiAMS13-16-2011.pdf`.

[168] A. Gning, B. Ristic, and L. Mihailova. Bernoulli Particle/Box-Particle Filters for Detection and Tracking in the Presence of Triple Measurement Uncertainty. Submitted to IEEE Trans. Signal Processing, 2011. `https://mcimpulse.isy.liu.se/files/Gning-TSP-2012.pdf`.

[169] A. Gning, B. Ristic, and L. Mihaylova. A Box Particle Filter for Stochastic and Set-theoretic Measurements with Association Uncertainty. In *Proc. 14th International Conference on Information Fusion*, Chicago, Illinois, USA, 2011. `https://mcimpulse.isy.liu.se/files/Gning-Paper096-Fusion2011.pdf`.

[170] A. Goldsztejn. On the Exponentiation of Interval Matrices, 2009. `http://arxiv.org/abs/0908.3954`.

[171] A. Goldsztejn, W. Hayes, and P. Collins. Tinkerbell Is Chaotic. *SIAM J. Applied Dynamical Systems*, 10(4):1480–1501, 2011. `http://www.goldsztejn.com/publications/SIADS2011.pdf`.

[172] D. Goluskin. Bounding Averages Rigorously Using Semidefinite Programming: Mean Moments of the Lorenz System. *Journal of Nonlinear Science*, 28(2):621–651, 2018. `https://doi.org/10.1007/s00332-017-9421-2`.

[173] D.S. Gonçalves and M.A. Gomes-Ruggiero. Técnicas Intervalares em Otimização Global. `http://www.sbmac.org.br/eventos/cnmac/xxxii_cnmac/pdf/265.pdf`.

[174] F. Goualard. Interval Extensions of Multivalued Inverse Functions: The Implementation of Interval Relational Arithmetic in gaol. *ACM Transactions on Mathematical Software*, V(N):1–23, 2008. `http://hal.archives-ouvertes.fr/docs/00/28/84/57/PDF/inverse-interval2007.pdf`.

[175] F. Goualard. How do you compute the midpoint of an interval?, 2011. `http://hal.archives-ouvertes.fr/hal-00576641`.

[176] P.S. Grigoletti and G.P. Dimuro. Módulo Python para Matemática Intervalar. *TEMA Tend. Mat. Apl. Comput.*, 8(1):73–82, 2007. `http://www.sbmac.org.br/tema/seletas/docs/v8_1/08-Grigoletti.pdf`.

[177] P.S. Grigoletti, G.P. Dimuro, L.V. Barboza, and R.H.S. Reiser. Análise intervalar de circuitos elétricos. *TEMA Tendências em Matemática Aplicada e Computacional*, 7(2), 2006. `http://www.sbmac.org.br/tema/seer/index.php/tema/article/view/256`.

[178] M. Grimmer, K. Petras, and N. Revol. Multiple Pecison Interval Pacages: Comparing Different Approaches. Technical Report 2003-32, Laoratoire de l'Informatique du Parallélisme, École Noremale Supérieure d Lyon, 2003. `http://lara.inist.fr/bitstream/2332/847/1/RR2003-32.pdf`.

[179] M. Grimmer, K. Petras, and N. Revol. Multiple Precision Interval Packages: Comparing Different Approaches. In *Lecture Notes in Computer Science*, volume 2991, pages 64–90, 2004. `http://www.inria.fr/rrrt/rr-4841.html`.

[180] E. Grosu and I. Harari. Studies of the discontinuous enrichment method for two-dimensional acoustics. *Finite Elements in Analysis and Design*, 44(5):272–287, 2008. doi:10.1016/j.finel.2007.11.016.

[181] A. Gupta and S. Ray. Interval-based differential evolution approach for combined economic emission load dispatch. *Journal International Journal of Reliability and Safety*, 5(3–4):270–284, 2011. `http://inderscience.metapress.com/content/b874130p3q011145/`.

[182] C. R. Gwaltney, Y. Lin, L. D. Simoni, and M. A. Stadtherr. Interval methods for nonlinear equation solving applications. `http://www.nd.edu/~markst/granular-chapter.pdf`.

[183] R. Haiduc. Horseshoes in the forced van der Pol system. *Nonlinearity*, 22(1):213–237, 2009. doi:10.1088/0951-7715/22/1/011, `http://iopscience.iop.org/0951-7715/22/1/011/pdf/0951-7715_22_1_011.pdf`.

[184] J.G. Hajagos. Modeling uncertainty in population biology: how the model is written does matter. `http://library.lanl.gov/cgi-bin/getdoc?event=SAMO2004&document=samo04-46.pdf`, 2004.

[185] J.G. Hajagos. *Accurately Computing Ecological Risk under Measurement Uncertainty*. PhD thesis, Stony Brook University, 2005. A dissertation presented to the Graduate School in Partial fulfillment of the Requirements for the Degree of Doctor of Philosophy in Ecology and Evolution, `http://creativelimits.net/research/dissertation/compute-ecological-risk.pdf`.

[186] J.G. Hajagos. Interval Monte Carlo as an Alternative to Second-Order Sampling for Estimating Ecological Risk. *Reliable Computing*, 13(1):71–81, 2007. `http://www.springerlink.com/content/bm171426036k1251/fulltext.pdf`.

[187] J.G. Hajagos and S. Ferson. Modeling Uncertainty in Ecology: How the Model is Written does Matter. `http://creativelimits.net/research/posters/samo04poster.pdf`, 2004.

[188] S. Hammarling. An Introduction to the Quality of Computed Solutions. Technical report, The Numerical Algorithms Group Ltd., Oxford, 2005. `http://eprints.ma.man.ac.uk/101/01/intro-qual.pdf`.

[189] G.I. Hargreaves. Interval Analysis in MATLAB. Technical Report 416, Manchester Centre for Computational Mathematics, Dept. Math., 2002. `http://www.manchester.ac.uk/mims/eprints`.

[190] K. Hariprasad and S. Bhartiya. Adaptive robust model predictive control of nonlinear systems using tubes based on interval inclusions. In *Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on*, pages 2032–2037, 2014. doi=10.1109/CDC.2014.7039697.

[191] B. Hashemi and M. Dehghan. Results concerning interval linear systems with multiple right-hand sides and the interval matrix equation $AX = B$. *J. Comput. Appl. Math.*, 235(9):2969–2978, 2011. `http://dx.doi.org/10.1016/j.cam.2010.12.015`.

[192] K. Hashimoto. *A numerical verification method for solutions of nonlinear elliptic problems by an infinite dimensional Newton-type formulation*. PhD thesis, Graduate School of Mathematics, Kyushu University, Fukuoka, Japan `http://www.nakamura-u.ac.jp/~hashimot/Files/doctor.pdf`.

[193] G. He and X. Gao and R. Zhang and L. Sun and H. Zhou. *Array Excitation Error Analysis,* in "Multibeam Phased Array Antennas as Satellite Constellation Ground Station", p. 39–58, 2024. `https://doi.org/10.1007/978-981-99-7910-3_3`

[194] J. Heeks, E.P. Hofer, B. Tibken, K. Lunde, and K. Thorwart. Simulation of a Controlled Aircraft Elevator Under Sensor Uncertainties. In W. Krämer and J.W. von Gudenberg, editors, *Scientific Computing, Validated Numerics, Internal Methods*, pages 227–237. Kluwer Academic/Plenum Publishers, 2001.

[195] O. Heimlich. *The General Interval Power Function*. PhD thesis, Julius-Maximilians-Universität Würzburg, 2011. `http://exp.ln0.de/heimlich-power-2011.pdf`.

[196] T. Hendriks. *Contrail Mitigation by means of 4D Aircraft Trajectory Optimisation*. Theses, Delft University of Technology, Aerospace Engineering, Control & Operations, 2015. Available from `http://repository.tudelft.nl/view/ir/uuid:ca8181f9-0695-41f2-95a6-28e967bddb05/`.

[197] P. Herrero, B. Delaunay, L. Jaulin, P. Georgiou, N. Oliver, and C. Toumazou. Robust set-membership parameter estimation of the glucose minimal model. *Int. J. Adapt. Control Signal Process.*, 2015. doi: 10.1002/acs.2538.

[198] D.J. Higham and N.J. Higham. MATLAB *Guide*. SIAM Publications, Philadelphia, 2nd edition, 2005. `http://www.maths.manchester.ac.uk/~higham/mg/`.

[199] N.J. Higham. *Accuracy and Stability of Numerical Algorithms*. SIAM Publications, Philadelphia, 2nd edition, 2002.

[200] M. Hladík. Solution set of complex linear interval systems of equations. Technical Report 2007-830, Department of Applied Mathematics of the Faculty of Mathematics and Physics at the Charles University in Prague, 2007. `http://kam.mff.cuni.cz/~kamserie/serie/clanky/2007/s830.ps`.

[201] M. Hladík. *Positive Semidefiniteness and Positive Definiteness of a Linear Parametric Interval Matrix* , pages 77–88. Springer International Publishing, Cham, 2018. `https://doi.org/10.1007/978-3-319-61753-4_11`.

[202] M. Hladík and L. Jaulin. An Eigenvalue Symmetric Matrix Contractor. *Reliable Computing*, 16:27–37, 2011. `http://hal.archives-ouvertes.fr/docs/00/63/62/86/PDF/paper_hladik_2011.pdf`.

[203] W. Hofschuster and W. Krämer. C-XSC 2.0 — A C++ Library for Extended Scientific Computing. In *Numerical Software with Result Verification*, volume 2991 of *Lecture Notes in Computer Science*, pages 15–35. Springer Berlin-Heidelberg, 2004. `http://www.springerlink.com/content/x4jn1lctuhhx5kbe/fulltext.pdf`.

[204] W. Hofschuster, W. Krämer, and M. Neher. C-XSC and Closely Related Software Packages. In A. Cuyt et al., editor, *Numerical Validation in Current Hardware Architectures*, volume 5492/2009 of *Lecture Notes in Computer Science*, pages 68–102. Springer-Verlag Berlin Heidelberg, 2009. `http://www.springerlink.com/content/44t7r27n52276780/`.

[205] S. Hongthong and R.B. Kearfott. Rigorous Linear Overestimators and Underestimators. Mathematical Programming manuscript (will be inserted by the editor). `http://interval.louisiana.edu/preprints/estimates_of_powers.pdf`.

[206] S. Horn and K. Janschek. A set-based global dynamic window algorithm for robust and safe mobile robot path planning. In *ISR/ROBOTIK 2010*, 2010. `http://www.vde-verlag.de/proceedings-en/453273070.html`.

[207] J. Hu, Y. Peng, and G. Xiong. Robust decision and optimisation for collaborative parameter design. *International Journal of Computer Applications in Technology*, 36(3–4):172–180, 2009. `http://inderscience.metapress.com/link.asp?id=b0j0331120708270`.

[208] J. Hu, Y. H. Peng, and G. L. Xiong. Multi-disciplinary robust coordination for algebraic and differential constraints and its application to parameter design of bogies. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 222(11):2147–2161, 2008. DOI 10.1243/09544062JMES914, `http://pep.metapress.com/content/7n3k37q425462556/`.

[209] V.M. Hur and Z. Yang. Unstable Stokes Waves. *Archive for Rational Mechanics and Analysis*, 247(4), 2023. `DOI:10.1007/s00205-023-01889-2`.

[210] M. Huhtanen and R.M. Larsen. Exclusion and Inclusion Regions for the Eigenvalues of a Normal Matrix. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 23:1070–1091, 2002. `http://link.aip.org/link/?SML/23/1070/1`.

[211] IEEE, editor. *2004 International Conference on Probabilistic Methods Applied to Power Systems, Ames, IA, USA, 12–16 September 2004*. pub-IEEE, 2004.

[212] D. Ishii. *Simulation and Verifcation of Hybrid Systems Based on Interval Analysis and Constraint Programming.* PhD thesis, Graduate School of Science and Engineering, Waseda University, 2010. `http://www.ueda.info.waseda.ac.jp/~ishii/pub/papers/ishii_dthesis.pdf`.

[213] R.A. Jabr. Solution trajectories of the harmonic-elimination problem. *IEE Proceedings - Electric Power Applications*, 153(1):97–104, 2006. DOI: 10.1049/ip-epa:20050112.

[214] C. Jacobsen, A. Solovyev, and G. Gopalakrishnan. A Parameterized Floating-Point Formalization in HOL Light. Electronically published in Electronic Notes in Theoretical Computer Science `www.elsevier.nl/locate/entcs`.

[215] C. Jansson. Convex-Concave Extensions. *BIT Numerical Mathematics*, 40(2):291–313, 2000. `http://www.mat.univie.ac.at/~neum/glopt/mss/Jan00.ps.gz`.

[216] C. Jansson. Quasi Convex-Concave Extensions. In G. Alefeld, J. Rohn, S. Rump, and T. Yamamoto, editors, *Symbolic Algebraic Methods and Verification Methods*, pages 117–128. Springer, Wien, New York, 2001. `http://www.ti3.tu-harburg.de/paper/jansson/quasi.ps`.

[217] C. Jansson. Quasiconvex Relaxations Based on Interval Arithmetic. *Linear Algebra and its Applications (LAA)*, 324:27–53, 2001. `http://dx.doi.org/10.1016/S0024-3795(00)00295-0`.

[218] C. Jansson. Rigorous Lower and Upper Bounds in Linear Programming. *SIAM J. Optimization (SIOPT)*, 14(3):914–935, 2004.

[219] C. Jansson. VSDP: A MATLAB software package for Verified Semidefinite Programming. *NOLTA*, pages 327–330, 2006. `http://www.ti3.tu-harburg.de/paper/jansson/Nolta06.pdf`.

[220] C. Jansson. VSDP: Verified SemiDefinite Programming, User's Guide, 2006. `http://www.BetaVersion0.1.optimization-online.org/DB_HTML/2006/12/1547.html`.

[221] C. Jansson. Guaranteed Accuracy for Conic Programming Problems in Vector Lattices, 2007. arXiv:0707.4366v1, `http://arxiv.org/abs/0707.4366v1`.

[222] C. Jansson. On Verified Numerical Computations in Convex Programming. *Japan J. Indust. Appl. Math.*, 26:337–363, 2009.

[223] C. Jansson, D. Chaykin, and C. Keil. Rigorous Error Bounds for the Optimal Value in Semidefinite Programming. *To appear in SIAM Journal on Numerical Analysis (SINUM)*, 2007. `http://www.optimization-online.org/DB_HTML/2005/01/1047.html`.

[224] J. Jaquette. A proof of jones' conjecture. `https://arxiv.org/abs/1801.09806`, 2018.

[225] J. Jaquette, J.-P. Lessard, and K. Mischaikow. Stability and uniqueness of slowly oscillating periodic solutions to Wright's equation. *Journal of Differential Equations*, 263(11):7263–7286, 2017. `http://www.sciencedirect.com/science/article/pii/S0022039617304114`.

[226] C. Jauberthie. *Estimation of uncertain dynamical systems and related properties. Application to health-monitoring.* PhD thesis, Université Toulouse 3, Paul Sabatier, 2016. `https://hal.laas.fr/tel-01483801`.

[227] L. Jaulin, M. Kieffer, O. Didrit, and E. Walter. *Applied Interval Analysis (With Examples in Parameter and State Estimation, Robust Control and Robotics).* Springer Verlag, 2001. `http://www.ensieta.fr/e3i2/Jaulin/contentaia.pdf`.

[228] F. Jézéquel. Contrôle dynamique de méthodes d'approximation (Dynamical control of approximation methods). Habilitation á Diriger des Recherches, Université Pierre et Marie Curie, Paris, 2005. `http://www-anp.lip6.fr/~jezequel/HDR.html`.

[229] M.-S. Jha, G. Dauphin-Tanguy, and B. Ould Bouamama. Robust fault detection with interval valued uncertainties in bond graph framework. `https://www.sciencedirect.com/science/article/pii/S0967066117302423`, 2018.

[230] M. Joldes. *Approximations polynomiales rigoureuses et applications*. PhD thesis, École Normale Supérieure de Lyon, 2011. `http://perso.ens-lyon.fr/mioara.joldes/these/theseJoldes.pdf`.

[231] N. Juffa and N. H. F. Beebe. A bibliography of publications on floating-point arithmetic, 2008. `http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.65.607`.

[232] W.D. Kalies, S. Kepley, and J.D. Mireles James. Analytic continuation of local (un)stable manifolds with rigorous computer assisted error bounds. `https://arxiv.org/abs/1706.10107`, 2017.

[233] I.R. Kamel and M.A. Hassanein. Solving multidimensional nonlinear perturbed problems using interval Newton methods. *AIP Conference Proceedings*, 1648(1), 2015. `http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.4912970`.

[234] R. B. Kearfott. *GlobSol User Guide*. Department of Mathematics, University of Louisiana, 2009. `http://interval.louisiana.edu/preprints/GlobSol-user-guide-preprint.pdf`.

[235] R. B. Kearfott and C. Hu. Fundamentals of Interval Computing. In *Knowledge Processing with Interval and Soft Computing*, Advanced Information and Knowledge Processing, pages 1–12. Springer, 2008. DOI 10.1007/978-1-84800-326-2_1, `http://www.springerlink.com/content/g36584p347q04832/`.

[236] R. B. Kearfott, J. Pryce, and N. Revol. Discussions on an Interval Arithmetic Standard at Dagstuhl Seminar 08021. In *Numerical Validation in Current Hardware Architectures*, volume 5492 of *Lecture Notes in Computer Science*, pages 1–6. Springer, 2009. DOI 10.1007/978-3-642-01591-5, `http://www.springerlink.com/content/20nj89gv6t581804/`.

[237] R.B. Kearfott. Validated Constraint Solving Practicalities, Pitfalls, and New Developments. *Reliable Computing*, 11(5):383–391, 2005. `http://springerlink.metapress.com/content/r468475535l0395/fulltext.pdf`.

[238] 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. `http://interval.louisiana.edu/new-S-preconditioner.pdf`, INTLAB files available in `http://interval.louisiana.edu/software/singular-linsys-INTLAB-routines.zip`.

[239] R.B. Kearfott, M. Neher, S. Oishi, and F. Rico. Libraries, Tools, and Interactive Systems for Verified Computations Four Case Studies. In *Numerical Software with Result Verification*, volume 2991/2004 of *Lecture Notes in Computer Science*, pages 36–63. Springer Berlin / Heidelberg, 2004. `http://www.springerlink.com/content/rxj6ulcemmrmh06u/fulltext.pdf`.

[240] S. Kempken and W. Luther. Verified Methods in Stochastic Traffic Modelling. In *Reliable Implementation of Real Number Algorithms: Theory and Practice*, volume 5045 of *Lecture Notes in Computer Science*, pages 83–101. Springer, 2008. DOI 10.1007/978-3-540-85521-7_5, `http://www.springerlink.com/content/v761283270205241/`.

[241] S. Kepley and J.D. Mireles James. Chaotic motions in the restricted four body problem via devaney's saddle-focus homoclinic tangle theorem. `https://arxiv.org/abs/1711.06932`, 2018.

[242] M. Keyanpour, M. Mohaghegh tabar, and W. Lodwick. A solution algorithm for a system of interval linear equations based on the constraint interval point of view. *Reliable Computing*, 26, 2018. `https://interval.louisiana.edu/reliable-computing-journal/volume-26/reliable-computing-26-pp-001-012.pdf`.

[243] D. Keysers, Ch. Gollan, and H. Ney. Local Context in Non-Linear Deformation Models for Handwritten Character Recognition. In *17th International Conference on Pattern Recognition (ICPR'04)*, pages 511–514, 2004. `http://www.computer.org/portal/web/csdl/doi/10.1109/ICPR.2004.1333823`.

[244] M. Kieffer and E. Walter. Interval analysis for guaranteed non-linear parameter and state estimation. *Math. Comput. Model. Dyn. Syst.*, 11(2):171–181, 2005. `http://www.informaworld.com/smpp/content?content=10.1080/13873950500068807`.

[245] T. Kimura and X. Chen. Validated solution of saddle point linear systems. *SIAM J. Matrix Anal. Applications*, 30:1697–1708, 2009. `http://www.polyu.edu.hk/ama/staff/xjchen/SIMAX.pdf`.

[246] T. Kimura and X. Chen. Validated Solutions of Saddle Point Linear Systems. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 30(4):1696–1708, 2009.

[247] T. Kinoshita, K. Hashimoto, and M.T. Nakao. On the L^2 a Priori Error Estimates to the Finite Element Solution of Elliptic Problems with Singular Adjoint Operator. *Numerical Functional Analysis and Optimization*, 30(3–4):289–305, 2009. `http://www.ingentaconnect.com/content/tandf/lnfa/2009/00000030/F0020003/art00007`.

[248] T. Kinoshita, T. Kimura, and M.T. Nakao. A posteriori estimates of inverse operators for initial value problems in linear ordinary differential equations. Technical Report RIMS-1712, Research institute for mathematical science, Kyoto University, 2011. `http://www.kurims.kyoto-u.ac.jp/preprint/file/RIMS1712.pdf`.

[249] T. Kinoshita and M.T. Nakao. On very accurate enclosure of the optimal constant in the a priori error estimates for H_0^2-projection. Technical report, Faculty of Mathematics Kyushu University Fukuoka, 2009. `http://gcoe-mi.jp/temp/publish/54fe8cc8f531b00186b649cf77fc7ba6.pdf`.

[250] U. Kirchgraber, U. Manz, and D. Stoffer. Rigorous Proof of Chaotic Behaviour in a Dumbbell Satellite Model. *Journal of Mathematical Analysis and Applications*, 251(2):897–911, 2000. `http://dx.doi.org/10.1006/jmaa.2000.7143`.

[251] G. Kiss and J.-P. Lessard. Computational fixed-point theory for differential delay equations with multiple time lags. *Journal of Differential Equations*, 252(4):3093–3115, 2012. `http://www.sciencedirect.com/science/article/pii/S0022039611004906`.

[252] G. Kiss and J.-P. Lessard. Rapidly and slowly oscillating periodic oscillations of a delayed van der Pol oscillator. `http://archimede.mat.ulaval.ca/jplessard/delayedVDP/delayed_vdP.pdf`, 2015.

[253] J. Kittler, M. Petrou, M.S. Nixon, and E.R. Hancock et al., editors. *Proceedings of the 17th International Conference on Pattern Recognition: ICPR 2004: August 23–26, 2004, Cambridge UK*, volume 4. IEEE, 2004.

[254] A. Klimke. An Efficient Implementation of the Transformation Method of Fuzzy Arithmetic. Technical Report 2003/009, Institut für Angewandte Analysis und Numerische Simulation, Universität Stuttgart, 2003. `http://preprints.ians.uni-stuttgart.de/downloads/2003/2003-009.pdf`.

[255] M. Kolberg, G. Bohlender, and D. Claudio. Improving the Performance of a Verified Linear System Solver Using Optimized Libraries and Parallel Computation. In *High Performance Computing for Computational Science - VECPAR 2008*, volume 5336 of *Lecture Notes in Computer Science*, pages 13–26. Springer, 2008. DOI 10.1007/978-3-540-92859-1, `http://www.springerlink.com/content/n101186742121185/`.

[256] L. Kolev. Determining the range of real eigenvalues for the interval generalized eigenvalue problem. *COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 27(6):1463–1480, 2008. `http://www.emeraldinsight.com/journals.htm?articleid=1753876&show=abstract`.

[257] L. Kolev. Stability radius of linear interval parameter circuits. VXV International Symposium on Theoretical Engineering, Lübeck, Germany, 2009. `http://www.vde-verlag.de/proceedings-en/453166041.html`.

[258] L. Kolev. Eigenvalue range determination for interval and parametric matrices. *International Journal of Circuit Theory and Applications*, 38(10):1027–1061, 2010. `http://onlinelibrary.wiley.com/doi/10.1002/cta.609/abstract`.

[259] L. Kolev. Determining the Range of the Power Consumption in Linear DC Interval Parameter Circuits. *IEEE Trans. Circuits and Systems I*, 58(9):2182–2188, 2011. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5743040`.

[260] L. Kolev. Determining the stability margin in linear interval parameter electric circuits via a DAE model. *International Journal of Circuit Theory and Applications*, 2011. doi:10.1002/cta.762, `http://dx.doi.org/10.1002/cta.762`.

[261] L.V. Kolev. Solving Linear Systems Whose Elements Are Non-linear Functions of Intervals. `http://81.161.252.58/fce/001/0014/files/42.pdf`.

[262] L.V. Kolev. Outer Interval Solution of the Eigenvalue Problem under General Form Parametric Dependencies. *Reliable Computing*, 12(2):121–140, 2006. `http://www.springerlink.com/content/fw6320133w402541/fulltext.pdf`.

[263] L.V. Kolev. Determining the positive definiteness margin of interval matrices. *Reliable Computing*, 13(6):445–466, 2007. `http://www.springerlink.com/content/l9h145824t7j4v43/`.

[264] L.V. Kolev. Determining the range of the active and reactive power in AC interval parameter circuits. In *2011 Joint 3rd Int'l Workshop on Nonlinear Dynamics and Synchronization (INDS) 16th Int'l Symposium on Theoretical Electrical Engineering (ISTET)*, pages 1–8, 2011. doi:10.1109/INDS.2011.6024804, `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6024804&tag=1`.

[265] L.V. Kolev. Parameterized solution of linear interval parametric systems. *Applied Mathematics and Computation*, 246:229–246, 2014. `http://www.sciencedirect.com/science/article/pii/S009630031401131X`.

[266] J. Koníěková. Vlastnosti Soustav Lineárních Rovnic s Intervalovì Zadanými Koeficienty. `http://mat.fsv.cvut.cz/komisevstez/30vstez/sbornik/konickova_30_vstez.pdf`.

[267] O. Král and M. Hladík. Parallel Computing of Linear Systems with Linearly Dependent Intervals in MATLAB. In R. Wyrzykowski, J. Dongarra, E. Deelman, and K. Karczewski, editors, *Parallel Processing and Applied Mathematics*, pages 391–401. Springer International Publishing, Cham, 2018.

[268] W. Krämer. Advanced Software Tools for Validated Computing. Technical Report Preprint 2002/1, Bergische Universität Wuppertal, 2002. `http://www.math.uni-wuppertal.de/wrswt/preprints/prep_02_1.pdf`.

[269] W. Krämer. High Performance Verified Computing Using C-XSC. Para 2010 State of the Art in Scientific and Parallel Computing, extended abstract no. 33, University of Iceland, Reykjavik, June 6–9, `http://vefir.hi.is/para10/extab/para10-paper-33.pdf`, 2010.

[270] W. Krämer and W. Hofschuster. C-XSC 2.0: A C++ Class Library for Extended Scientific Computing. `http://interval.louisiana.edu/conferences/Validated_computing_2002/abstracts/KRAE.pdf`.

[271] W. Krämer and M. Zimmer. Fast (Parallel) Dense Linear System Solvers in C-XSC Using Error Free Transformations and BLAS. In *Numerical Validation in Current Hardware Architectures*, volume 5492 of *Lecture Notes in Computer Science*, pages 230–249. Springer, 2009. DOI 10.1007/978-3-642-01591-5_15, `http://www.springerlink.com/content/m4331k5064648086/`.

[272] I. Krasnochtanova, A. Rauh, M. Kletting, H. Aschemann, E.P. Hofer, and K.-M. Schoop. Interval Methods as a Simulation Tool for the Dynamics of Biological Wastewater Treatment Processes with Parameter Uncertainties (Intervallmethoden zur Simulation der Dynamik von biologischen Abwasserreinigungsanlagen mit Parameterunsicherheiten). *Applied Mathematical Modelling*, 34(3):744–762, 2010. `http://dx.doi.org/10.1016/j.apm.2009.06.019`.

[273] I. Krasnochtanova, A. Rauh, M. Kletting, H. Aschemann, E.P. Hoferd, and K.-M. Schoope. Interval methods as a simulation tool for the dynamics of biological wastewater treatment processes with parameter uncertainties. *Applied Mathematical Modelling*, 34(3):744–762, 2010. doi:10.1016/j.apm.2009.06.019, `http://www.sciencedirect.com/science/article/pii/S0307904X09001784`.

[274] V. Krisztián. A Newton és Gauss-Newton módszerek alkalmazása egyenletrendszerek megoldására és nemlineáris optimalizálásra. `http://www.stud.u-szeged.hu/Veress.Krisztian/munka/newton_modszerek.pdf`, 2007.

[275] K. Kueviakoe. *Guaranteed multi-sensor localisation : solving a constraint satisfaction problem*. Theses, Université Paris Sud - Paris XI, 2014. Available from `https://tel.archives-ouvertes.fr/tel-01159313/file/VD2_KUEVIAKOE_KANGNI_30092014.pdf`.

[276] Z. Kulpa and S. Markov. On the Inclusion Properties of Interval Multiplication: A Diagrammatic Study. *BIT Numerical Mathematics*, 43(4):791–810, 2003. `http://www.springerlink.com/content/t723426pq44731t8/fulltext.pdf`.

[277] A. Kumar and A.S. Balu. Epistemic uncertainty quantification in structural systems using improved universal grey theory. *Structures*, 56:9–10, 2023. `10.1016/j.istruc.2023.104872`.

[278] J.-L. Lamotte. Vers une chaine de validation des logiciels numériques á l'aide de méthodes probabilistes. Habilitation á diriger des recherches, `www-anp.lip6.fr/~lamotte/habilitation_lamotte.ps`, 2004.

[279] T.-L. Lee and M. Santoprete. Central configurations of the five-body problem with equal masses. *Celestial Mechanics and Dynamical Astronomy*, 104(4):369–381, 2009. DOI 10.1007/s10569-009-9219-0, http://www.springerlink.com/content/335r547725740316/.

[280] H. Leng and Z. He. Computation of bounds for eigenvalues of structures with interval parameters. *Applied Mathematics and Computation*, 216(9):2734–2739, 2010. doi:10.1016/j.amc.2010.03.121.

[281] M. Lerch, G. Tischler, , J.W. Von Gudenberg, W. Hofschuster, and W. Krämer. FILIB++, a fast interval library supporting containment computations. *j-TOMS*, 32(2):299–324, 2006. http://doi.acm.org/10.1145/1141885.1141893.

[282] J. P. Lessard. Recent advances about the uniqueness of the slowly oscillating periodic solutions of Wright's equation. *Journal of Differential Equations*, 248(5):992–1016, 2010. doi:10.1016/j.jde.2009.11.008, http://arxiv.org/PS_cache/arxiv/pdf/0909/0909.4107v2.pdf.

[283] J.-P. Lessard. Rigorous veri?cation of saddle-node bifurcations in ODEs. http://archimede.mat.ulaval.ca/jplessard/Publications_files/saddle_node.pdf, 2015.

[284] J. P. Lessard. Computing Discrete Convolutions with Verified Accuracy Via Banach Algebras and the FFT. *Applications of Mathematics*, 22:1–17, 2018. doi:10.21136/AM.2018.0082-18, https://doi.org/10.21136/AM.2018.0082-18.

[285] J.-P. Lessard, J.D. Mireles James, and J. Ransford. Automatic differentiation for Fourier series and the radii polynomial approach. *Physica D: Nonlinear Phenomena*, 334:174–186, 2016. http://www.sciencedirect.com/science/article/pii/S0167278916000294.

[286] J.-P. Lessard, E. Sander, and T. Wanner. Rigorous continuation of bifurcation points in the diblock copolymer equation. *Journal of Computational Dynamics*, 4, 2017. http://aimsciences.org//article/id/77185b5a-2714-4516-b7e2-91d39f3dafbd.

[287] Q. Li and X.-S. Yang. A computer-assisted verification of hyperchaos in the Saito hysteresis chaos generator. *J. Phys. A: Math. Gen.*, 39:9139–9150, 2006. http://www.iop.org/EJ/abstract/0305-4470/39/29/009/.

[288] Q. Li and X.-S. Yang. Chaotic dynamics in a class of three dimensional Glass networks. *CHAOS*, 16:033101–1–5, 2006. DOI: 10.1063/1.2213579.

[289] Q. Li and X.-S. Yang. OA 3D Smale Horseshoe in a Hyperchaotic Discrete-Time System. *Discrete Dynamics in Nature and Society*, 2007, 2006. http://www.hindawi.com/GetPDF.aspx?doi=10.1155/2007/16239.

[290] S.-G. Li, H. Jiang, L.-Z. Cheng, and X.-K. Liao. IGAOR and multisplitting IGAOR methods for linear complementarity problems. *Journal of Computational and Applied Mathematics*, 235(9):2904–2912, 2011. http://www.sciencedirect.com/science/article/pii/S0377042710006552.

[291] Z. Li and H. Sang. Verified error bounds for singular solutions of nonlinear systems. *Numerical Algorithms*, pages 1–23, 2014. http://dx.doi.org/10.1007/s11075-014-9948-3.

[292] X. Liao and M. Plum. Eigenvalue Analysis of the Lax Operator for the One-Dimensional Cubic nonlinear Defocusing Schrödinger Equation. *SIAM Journal Math. Anal.*, 55(6), pages 7399–7425, 2023. DOI:10.1137/23M1550232.

[293] X. Liu. A framework of verified eigenvalue bounds for self-adjoint differential operators. Applied Mathematics and Computation, Available online from `http://www.sciencedirect.com/science/article/pii/S0096300315003628`, in Press, 2015.

[294] X. Liu and C. You. Explicit bound for quadratic Lagrange interpolation constant on triangular finite elements. *Applied Mathematics and Computation*, 319:693–701, 2018. `"http://www.sciencedirect.com/science/article/pii/S0096300317305714`.

[295] Ying Liu and Hao Liu. Distributed Box Particle Filtering for Target Tracking in Sensor Networks. *International Journal of Distributed Sensor Networks*, vol. 2015(Article ID 829013), 2015.

[296] A.D.S. Lordelo. *Analise e projeto de controladores robustos por alocação de polos via analise intervalar.* PhD thesis, Universidade Estadual de Campinas, Faculdade de Engenharia Elétrica e de Computação, 2004. `http://libdigi.unicamp.br/document/?code=vtls000321388`.

[297] A.D.S. Lordelo, E.A. Juzzo, and P.A.V. Ferreira. Projeto de controladores robustos através da equação diofantina intervalar, 2004. `http://www.lti.pcs.usp.br/robotics/grva/publicacoes/outras/cba2004-cd-rom/cba2004/pdf/563.pdf`.

[298] A.D.S. Lordelo, E.A. Juzzo, and P.A.V. Ferreira. Analysis and Design of Robust Controllers Using the Interval Diophantine Equation. *Reliable Computing*, 12(5):371–388, 2006. `http://www.springerlink.com/content/h13m880408002q85/fulltext.pdf`.

[299] Q.H. Lu and F. Soheib and C. Jauberthie. Fault detection using Enhanced Adaptive degrees of freedom X2-statistics method for Linear systems with mixed uncertainties. IFAC-PapersOnLine. 56(2), p. 11293–11298. `DOI:10.1016/j.ifacol.2023.10.324`.

[300] Y. Ma and M. Abouhamze and A. Elham. Aerostructural Optimization and Comparative Study of Twin-Fuselage and Strut-Braced-Wing Aircraft Configurations. Journal of Aircraft. `DOI:10.2514/1.C037388`.

[301] S. Maier-Paape, U. Miller, K. Mischaikow, and T. Wanner. Rigorous Numerics for the Cahn-Hilliard Equation on the Unit Square. Technical Report 14, Institut für Mathematik, Rheinisch-Westfälische Technische Hochschule Aachen, 2006. `http://www.instmath.rwth-aachen.de/Preprints/maier-paape20061012.pdf`.

[302] K. Makino and M. Berz. Taylor Model Methods. `http://bt.pa.msu.edu/TM/tm-9-30.pdf`.

[303] K. Makino and M. Berz. Taylor models and other validated functional inclusion methods. *International Journal of Pure and Applied Mathematics*, 4(4):379–456, 2003. `http://bt.pa.msu.edu/pub/papers/TMIJPAM03/TMIJPAM03.pdf`.

[304] K. Makino and M. Berz. Rigorous integration of flows and ODEs using taylor models. In *Proceedings of the 2009 conference on Symbolic numeric computation*, pages 79–84, 2009. `http://portal.acm.org/citation.cfm?id=1577206`.

[305] K. Makino, M. Berz, and Y.-K. Kim. Range Bounding with Taylor Models - Some Case Studies. *WSEAS Trans. Math.*, 3(1):137–145, 2004. `http://www.bt.pa.msu.edu/pub/papers/TMBound03/TMBound03.pdf`.

[306] A.N. Malyshev and M. Sadkane. Componentwise pseudospectrum of a matrix. *Linear Algebra and its Applications (LAA)*, 378:283–288, 2004. `http://dx.doi.org/10.1016/j.laa.2003.10.005`.

[307] S. Markov. On the Algebra of Errors and Intervals. Preprint IMI - BAS, Sofia, No. 2, 2000. `http://www.math.bas.bg/~bio/smarkov/MRINGOON.PS`.

[308] S. Markov. Computation of Algebraic Solutions to Interval Systems via Systems of Coordinates. In *Scientific Computing, Validated Numerics, Interval Methods*, pages 103–114. Kluwer, 2001. `http://www.math.bas.bg/~bio/smarkov/MSCAN00.PS`.

[309] S. Markov. Quasilinear Spaces and their Relation to Vector Spaces. *Eletronic Journal on Mathematics of Computation*, 2(1):1–21, 2005. `http://php.cin.ufpe.br/~ejmc/v2/articles/published/ejmc_v2_n1_markov.pdf`.

[310] A. Marquardt. *Rigorous Numerical Enclosures for Control Affine Problems*. PhD thesis, Mathematisch-Naturwissenschaftlichen Fakultät der Universität Augsburg, 2005. `http://www.opus-bayern.de/uni-augsburg/volltexte/2006/198/pdf/marquardt_diss.pdf`.

[311] M. Martel. Eléments pour la validation de systémes numériques intégrés. Mémoire présenté en vue de l'obtention de l'Habilitation à Diriger des Recherches, `http://www.enseignement.polytechnique.fr/informatique/profs/Matthieu.Martel/hdr.pdf`, 2006.

[312] M. Martel. RangeLab User's Guide, 2011. `http://perso.univ-perp.fr/mmartel/rangelab_user_guide.pdf`.

[313] B. Martin. *Rigorous algorithms for nonlinear biobjective optimization*. Theses, Université de Nantes, 2014. Available from `https://tel.archives-ouvertes.fr/tel-01146856/file/thesis_Martin_final2.pdf`.

[314] W.F. Mascarenhas. Moore: Interval arithmetic in C++20. *CoRR*, abs/1802.08558, 2018. `http://arxiv.org/abs/1802.08558`.

[315] N. Matsuda and N. Yamamoto. On the basic operations of interval multiple-precision arithmetic with center-radius form. *Nonlinear Theory and Its Applications (IEICE)*, 2(1):54–67, 2011. `http://www.jstage.jst.go.jp/article/nolta/2/1/2_54/_article`.

[316] K. Matsue, T. Hiwaki, and N. Yamamoto. On the construction of Lyapunov functions with computer assistance. *Journal of Computational and Applied Mathematics*, 319:385–412, 2017. `http://www.sciencedirect.com/science/article/pii/S0377042717300067`.

[317] G. Mayer. A Contribution to the Feasibility of the Interval Gaussian Algorithm. *Reliable Computing*, 12(2):79–98, 2004. `http://www.springerlink.com/content/p803847132755523/fulltext.pdf`.

[318] P. J. McKenna, F. Pacella, M. Plum, and D. Roth. A uniqueness result for a semilinear elliptic problem: A computer-assisted proof. *Journal of Differential Equations*, 247(7):2140–2162, 2009. doi:10.1016/j.jde.2009.06.023.

[319] A. Minamihata, K. Sekine, T. Ogita, S.M. Rump, and S. Oishi. Improved error bounds for linear systems with h-matrices. *Nonlinear Theory and Its Applications, IEICE*, 6(3):377–382, 2015.

[320] M. Mikaitis. Monotonicity of Multi-Term Floating-Point Adders. *IEEE Transactions on Computers*, 99:1–13, 2024.

[321] T. Minamoto, K. Aoki, and M. Yoshihara. A Blind Image Wavelet-Based Watermarking Using Interval Arithmetic. In D. Ślęzak, S.K. Pal, B.-H. Kang, J. Gu, H. Kuroda, and T.-h. Kim, editors, *Signal Processing, Image Processing and Pattern Recognition*, volume 61 of *Communications in Computer*

and Information Science, pages 1–8. Springer Berlin Heidelberg, 2009. `http://www.springerlink.com/content/vq663536g102895j/`.

[322] T. Minamoto and M.T. Nakao. A numerical verification method for a periodic solution of a delay differential equation. *Journal of Computational and Applied Mathematics*, 235(3):870–878, 2010. doi:10.1016/j.cam.2010.07.018.

[323] T. Minamoto and R. Ohura. A Non-blind Digital Image Watermarking Method Based on the Dyadic Wavelet Transform and Interval Arithmetic. In T.-h. Kim, H. Adeli, C. Ramos, and B.-H. Kang, editors, *Signal Processing, Image Processing and Pattern Recognition*, volume 260 of *Communications in Computer and Information Science*, pages 170–178. Springer Berlin Heidelberg, 2011. `http://dx.doi.org/10.1007/978-3-642-27183-0_18`.

[324] T. Minamoto, M. Yoshihara, and S. Fujii. A Digital Image Watermarking Method Using Interval Arithmetic. *IEICE Trans. Fundamentals*, E90-A:2949–2951, 2007. `http://ietfec.oxfordjournals.org/cgi/reprint/E90-A/12/2949.pdf`.

[325] J. Mireles James. Validated numerics for equilibria of analytic vector fields: invariant manifolds and connecting orbits. `https://www.researchgate.net/publication/317225918_Validated_numerics_for_equilibria_of_analytic_vector_fields_invariant_manifolds_and_connecting_orbits`, 2017.

[326] J. Mireles James and C. Reinhardt. Fourier-Taylor Parameterization of Unstable Manifolds for Parabolic Partial Differential Equations: Formalization, Implementation, and Rigorous Validation. *ArXiv e-prints*, 2016. `http://adsabs.harvard.edu/abs/2016arXiv160100307M`.

[327] J.D. Mireles James. Computer assisted error bounds for linear approximation of (un)stable manifolds and rigorous validation of higher dimensional transverse connecting orbits. *Communications in Nonlinear Science and Numerical Simulation*, 22(1–3):1102–1133, 2015. `http://www.sciencedirect.com/science/article/pii/S1007570414003931`.

[328] J.D. Mireles James. Polynomial approximation of one parameter families of (un)stable manifolds with rigorous computer assisted error bounds. *Indagationes Mathematicae*, 26(1):225–265, 2015. `http://www.sciencedirect.com/science/article/pii/S0019357714000925`.

[329] J.D. Mireles James. Fourier–Taylor Approximation of Unstable Manifolds for Compact Maps: Numerical Implementation and Computer-Assisted Error Bounds. *Foundations of Computational Mathematics*, 17(6):1467–1523, 2017. `https://doi.org/10.1007/s10208-016-9325-9`.

[330] I. Mitrea and W. Tucker. Interval analysis techniques for boundary value problems of elasticity in two dimensions. *J. Differential Equations*, 233:181–198, 2007. `http://www.math.uu.se/~warwick/main/papers/mitrea_tucker.pdf`.

[331] S. Miyajima. Enclosing Solutions in Least Squares Problems. `http://www.aueb.gr/pympe/hercma/proceedings2009/H09-FULL-PAPERS-1/Miyajima-1.pdf`, 2009.

[332] S. Miyajima. Fast enclosure for all eigenvalues in generalized eigenvalue problems. *Journal of Computational and Applied Mathematics*, 233(11):2994–3004, 2010. DOI: 10.1016/j.cam.2009.11.048.

[333] S. Miyajima. Fast enclosure for solutions in underdetermined systems. *Journal of Computational and Applied Mathematics*, 234(12):3436–3444, 2010. `http://www.sciencedirect.com/science/article/pii/S0377042710002608`.

[334] S. Miyajima. Numerical enclosure for each eigenvalue in generalized eigenvalue problem. *Journal of Computational and Applied Mathematics*, 2011. In Press, `http://www.sciencedirect.com/science/article/pii/S0377042711006273`.

[335] S. Miyajima. A sharp error bound of the approximate solutions for saddle point linear systems. *Journal of Computational and Applied Mathematics*, 277:36–46, 2015. `http://www.sciencedirect.com/science/article/pii/S0377042714003926`.

[336] S. Miyajima. Fast enclosure for a matrix inverse square root. *Linear Algebra and its Applications*, 467:116–135, 2015. `http://www.sciencedirect.com/science/article/pii/S0024379514007319`.

[337] S. Miyajima. Fast enclosure for the minimum norm least squares solution of the matrix equation $AXB = C$. *Numer. Linear Algebra Appl.*, 22:548–563, 2015. `http://onlinelibrary.wiley.com/doi/10.1002/nla.1971/pdf`.

[338] S. Miyajima. Fast verified computation for solutions of continuous-time algebraic Riccati equations. *Japan Journal of Industrial and Applied Mathematics*, 32(2):529–544, 2015.

[339] S. Miyajima. Fast verification for perron vectors of a kind of weakly irreducible nonnegative tensors. *Conference: INTERNATIONAL CONFERENCE OF NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2021*, `DOI10.1063/5.0162201`.

[340] S. Miyajima, T. Ogita, S.M. Rump, and S. Oishi. Fast Verification of All Eigenpairs in Symmetric Positive Definite Generalized Eigenvalue Problem. *Reliable Computing*, 14:24–45, 2011. `http://interval.louisiana.edu/reliable-computing-journal/volume-14/reliable-computing-14-pp-24-45.pdf`.

[341] S. Miyajima. Fast enclosure for positive solutions to M-tensor multi-linear systems. *INTERNATIONAL CONFERENCE OF NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2021*. `DOI:10.1063/5.0162200`.

[342] S. Miyajima. Fast verified computation for the minimal nonnegative solution to the nonsymmetric T-Riccati equation. *INTERNATIONAL CONFERENCE OF NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2021*. `DOI:10.1063/5.0162202`.

[343] S. Miyajima. Some properties concerning Perron vectors of weakly irreducible nonnegative tensors, and their application to rigorous enclosure. Linear Algebra and it Applications (LAA). `10.1016/j.laa.2024.02.002`.

[344] M. Mizuguchi, A. Takayasu, T. Kubo, and S. Oishi. On the embedding constant of the Sobolev type inequality for fractional derivatives. *Nonlinear Theory and Its Applications, IEICE*, 7(3):386–394, 2016. doi:10.1587/nolta.7.386.

[345] M. Mizuguchi, K. Tanaka, K. Sekine, and S. Oishi. Estimation of Sobolev embedding constant on a domain dividable into bounded convex domains. *Journal of Inequalities and Applications*, 2017(1):299, 2017. `http://doi.org/10.1186/s13660-017-1571-0`.

[346] K.L. Moore, Y.Q. Chen, and V. Bahl. Monotonically convergent iterative learning control for linear discrete-time systems. *Automatica*, 41(9):1529–1537, 2005. `http://www.ece.usu.edu/csois/people/yqchen/paper/05J06_automatica-monotone_Article.pdf`.

[347] R. E. Moore, R. B. Kearfott, and M. J. Cloud. *Introduction to interval analysis.* Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2009. `http://portal.acm.org/citation.cfm?id=1508122`.

[348] J.J. Moré and S.M. Wild. Estimating Derivatives of Noisy Simulations. Technical Report ANL/MCS-P1785-0810, Argonne National Laboratory, 2010. `http://www.optimization-online.org/DB_FILE/2010/11/2787.pdf`.

[349] I. Morel. Rapport de stage: Estimations de complexité en calcul certifié. `http://www.ens-lyon.fr/LIP/Pub/Rapports/Master/Master2007/Master2007-01.pdf`, 2007.

[350] A. Moriyama. Newton-Cotes: Accurate Valification of Numerical Integration of Newton-Cotes Method. Master's thesis, Waseda University, 2004. `http://dspace.wul.waseda.ac.jp/dspace/handle/2065/758`.

[351] V.C.. Moro and F.C.L. Trindade and F.B. Costa and B.D.Bonatto. Distributed generation hosting capacity analysis: An approach using interval-affine arithmetic and power flow sensitivities. Electric Power Systems Research, 226(17):109946. `DOI:10.1016/j.epsr.2023.109946`.

[352] N. Moteki and T. Mori. Theoretical analysis of a method to measure size distributions of solid particles in water by aerosolization. *Journal of Aerosol Science*, 83:25–31, 2015. `http://www.sciencedirect.com/science/article/pii/S0021850215000129`.

[353] A. Motwani, S. Sharma, R. Sutton, and P. Culverhouse. On the application of a hybrid ellipsoidal-rectangular interval arithmetic algorithm to interval Kalman filtering for state estimation of uncertain systems. *International Journal of Control*, 88(9):1805–1817, 2015. `http://dx.doi.org/10.1080/00207179.2015.1018951`.

[354] R.L. Muhanna, M.V.R. Rao, and R.L. Mullen. Advances in Interval Finite Element Modelling of Structures. *Life Cycle Reliability and Safety Engineering*, 2(3):15–22, 2013. `http://www.researchgate.net/profile/Venkata_Rama_Rao_Mallela/publication/271832353_Advances_in_Interval_Finite_Element_Modelling_of_Structures/links/54d30d270cf28e0697275aa7.pdf`.

[355] M. Murray and J.M. James. Computer assisted proof of homoclinic chaos in the spatial equilateral restricted four-body problem. Journal of Differential Equations 378(4):559-609. `DOI:10.1016/j.jde.2023.10.002`.

[356] R. Mullen and R. Muhanna. Multilevel Multiplicative Interval Uncertainty in Linear Structural Analysis. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part A Civil Engineering 9(4). `DOI:10.1061/AJRUA6.RUENG-1019`

[357] K. Nagatou, M. Plum, and M.T. Nakao. Eigenvalue excluding for perturbed-periodic one-dimensional Schrödinger operators. Proc. R. Soc. A, published online before print, 2011. doi:10.1098/rspa.2011.0159, `http://rspa.royalsocietypublishing.org/content/early/2011/10/13/rspa.2011.0159.short`.

[358] H. Nakano, H. Honda, and H. Okazaki. Canards in a slow-fast continuous piecewise linear vector field. In *IEEE International Symposium on Circuits and Systems, ISCAS 2005*, volume 4, pages 3757–3760, 2005. DOI: 10.1109/ISCAS.2005.1465447.

[359] M.T. Nakao and K. Hashimoto. Constructive error estimates of finite element approximations for non-coercive elliptic problems and its applications. Technical Report MHF2007-5, Faculty of Mathematics, Kyushu University, Fukuoka, Japan, 2007. `http://www.math.kyushu-u.ac.jp/coe/report/pdf/2007-5.pdf`.

[360] M.T. Nakao, K. Hashimoto, and Y. Watanabe. A Numerical Method to Verify the Invertibility of Linear Elliptic Operators with Applications to Nonlinear Problems. *Computing*, 75(1):1–14, 2005. `http://www.springerlink.com/content/g640n12134374p24/fulltext.pdf`.

[361] M.T. Nakao, K. Nagagou, and K. Hashimoto. Numerical enclosure of solutions for two dimensional driven cavity problems. In P. Neittaanmäki, T. Rossi, and O. Pironneau, editors, *European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2004)*, 2004. `http://www.imamod.ru/~serge/arc/conf/ECCOMAS_2004/ECCOMAS_V1/proceedings/pdf/372.pdf`.

[362] M.T. Nakao and Y. Watanabe. Numerical verification methods for solutions of semilinear elliptic boundary value problems. *Nonlinear Theory and Its Applications (IEICE)*, 2(1):2–31, 2011. `http://www.jstage.jst.go.jp/article/nolta/2/1/2_2/_article`.

[363] M.T. Nakao, Y. Watanabe, T. Kinoshita, T. Kimura, and N. Yamamoto. Some considerations of the invertibility verifications for linear elliptic operators. *Japan Journal of Industrial and Applied Mathematics*, 32(1):19–31, 2015. `http://dx.doi.org/10.1007/s13160-014-0160-6`.

[364] H. Nakashima, M. Koga, and K. Yano. Adaptive Bit-length Control of Mantissa in Multiple-precision Arithmetic for Numerical Computation with Guaranteed Arbitrary Accuracy. *???*, 3(3):22–30, 2010. `http://ci.nii.ac.jp/naid/110007990306/en/`.

[365] L. Nan and Z. Lihong. Verified error bounds for isolated singular solutions of polynomial systems: Case of breadth one. to be published in Theoretical Computer Science, `http://dx.doi.org/10.1016/j.tcs.2012.10.028`, 2013.

[366] P. Nataraj and M. Arounassalame. Constrained global optimization of multivariate polynomials using Bernstein branch and prune algorithm. *Journal of Global Optimization*, 49:185–212, 2011. `http://dx.doi.org/10.1007/s10898-009-9485-0`.

[367] P. S. V. Nataraj and M. Arounassalame. An algorithm for constrained global optimization of multivariate polynomials using the Bernstein form and John optimality conditions. *OPSEARCH*, 46(2):133–152, 2009. DOI 10.1007/s12597-009-0009-y, `http://www.springerlink.com/content/h385487782125317/`.

[368] P.S.V. Nataraj. Interval QFT: a mathematical and computational enhancement of QFT. *International Journal of Robust and Nonlinear Control*, 12(4):385–402, 2002. `http://www3.interscience.wiley.com/cgi-bin/abstract/91012967/ABSTRACT`.

[369] P.S.V. Nataraj and J.J. Barve. Generation of Bode and Nyquist Plots for Nonrational Transfer Functions to Prescribed Accuracy. `http://interval.louisiana.edu/conferences/Validated_computing_2002/abstracts/NATA.pdf`.

[370] P.S.V. Nataraj and J.J. Barve. Reliable and accurate algorithm to compute the limit cycle locus for uncertain nonlinear systems. *IEE Proceedings - Control Theory and Applications*, 150(5):457–466, 2003. DOI: 10.1049/ip-cta:20030813.

[371] P.S.V. Nataraj and J.J. Barve. Reliable Computation of Frequency Response Plots for Nonrational Transfer Functions to Prescribed Accuracy. *Reliable Computing*, 9(5):373–389, 2003. `http://www.springerlink.com/content/p901513467167006/fulltext.pdf`.

[372] P.S.V. Nataraj and J.J. Barve. Limit cycle computation for describing function approximable nonlinear systems with box-constrained parametric uncertainties. *International Journal of Robust and Nonlinear Control*, 15(10):437–457, 2005. `http://www3.interscience.wiley.com/cgi-bin/fulltext/110489432/PDFSTART`.

[373] P.S.V. Nataraj and A.K. Prakash. A Parallelized Version of the Covering Algorithm for Solving Parameter-Dependent Systems of Nonlinear Equations. *Reliable Computing*, 8(2):123–130, 2002. `http://www.springerlink.com/content/n0b9v4yqd9uhrw2g/fulltext.pdff`.

[374] P.S.V. Nataraj, R. Satyanarayan, and S. Sheela. A Polynomial-Time Algorithm for Efficient Extraction of Boundary Rectangles From Interval Templates. *Journal of Dynamic Systems, Measurement, and Control*, 125(4):654–657, 2003. `http://scitation.aip.org/journals/doc/JDSMAA-ft/vol_125/iss_4/654_1.html`.

[375] P.S.V. Nataraj and S. Sheela. Template Generation Algorithm Using Vectorized Function Evaluations and Adaptive Subdivisions. *Journal of Dynamic Systems, Measurement, and Control*, 124(4):585–588, 2002. DOI: 10.1115/1.1514055.

[376] P.S.V. Nataraj and S.M. Sheela. A New Subdivision Strategy for Range Computations. *Reliable Computing*, 8:83–92, 2002. `http://www.springerlink.com/content/91dhrgnmqq5249yb/`.

[377] V. Nazari and L. Notash. *Parametric Method for Motion Analysis of Manipulators with Uncertainty in Kinematic Parameters*, volume 2 of *Mechanisms and Machine Science*, pages 9–17. Springer International Publishing, Switzerland, 2014.

[378] V. Nazari and L. Notash. Motion Analysis of Manipulators with Uncertainty in Kinematic Parameters. *ASME Journal of Mechanisms and Robotics*, 8(2):021014–1–021014–9, 2016.

[379] M. Neher. Complex standard functions and their implementation in the CoStLy library. *ACM Transactions on Mathematical Software (TOMS)*, 33(1), 2007. `http://doi.acm.org/10.1145/1206040.1206042`.

[380] M.K. Nejad, F. Vignat, and F. Villeneuve. Tolerance analysis in machining using the model of manufactured part (MMP) comparison and evaluation of three different approaches. *International Journal of Computer Integrated Manufacturing*, 2011. `http://www.tandfonline.com/doi/abs/10.1080/0951192X.2011.627943`.

[381] E.G. Nepomuceno, M.L.C. Peixoto, S.A.M. Martins, H.M. Rodrigues, and M. Perc. Inconsistencies in numerical simulations of dynamical systems using interval arithmetic. *International Journal of Bifurcation and Chaos*, 28(04):1850055, 2018. `https://www.worldscientific.com/doi/abs/10.1142/S0218127418500554`.

[382] A. Neumaier. A simple derivation of the Hansen-Bliek-Rohn-Ning-Kearfott enclosure for linear interval equations. *Reliable Computing*, 5:131–136, 1999. `http://alko.mat.univie.ac.at/~neum/ms/ning.ps.gz`.

[383] A. Neumaier. *Introduction to Numerical Analysis*. Cambridge University Press, 2001.

[384] A. Neumaier. A Gerschgorin-type theorem for zeros of polynomials, 2002. `http://www.mat.univie.ac.at/~neum/ms/polzer.ps.gz`.

[385] A. Neumaier. Grand Challenges and Scientific Standards in Interval Analysis. *Reliable Computing*, 8(4):313–320, 2002. `http://www.springerlink.com/content/j26wwauxlj0yrqrq/fulltext.pdf`.

[386] A. Neumaier. Enclosing clusters of zeros of polynomials. *Journal of Computational and Applied Mathematics*, 156(2):389–401, 2003. `http://dx.doi.org/10.1016/S0377-0427(03)00380-7`.

[387] A. Neumaier. Taylor Forms: Use and Limits . *Reliable Computing*, 9(1):43–79, 2003. `http://www.springerlink.com/content/xg2l32n76g7w6cpd/fulltext.pdf`.

[388] A. Neumaier. Computer-assisted proofs. `http://www.mat.univie.ac.at/~neum/ms/caps.pdf`, 2006.

[389] A. Neumaier. Improving interval enclosures, 2009. `http://www.mat.univie.ac.at/~neum/ms/encl.pdf`.

[390] A. Neumaier, B. Einarsson, M. Van Emden, P. Zimmermann, and D. Zuras. Vienna proposal for interval standardization, 2008. `http://www.mat.univie.ac.at/~neum/ms/1788.pdf`.

[391] A. Neumaier and A. Pownuk. Linear Systems with Large Uncertainties, with Applications to Truss Structures. *Reliable Computing*, 13(2):149–172, 2007. `http://www.springerlink.com/content/r315101784161g13/fulltext.pdf`.

[392] C. Nguyen, H. V. Berbra, S. Lesecq, S. Gentil, A. Barraud, and C. Godin. Diagnosis of an inertial measurement unit based on set membership estimation. In *17th Mediterranean Conference on Control and Automation*, pages 211–216, 2009. `http://doi.ieeecomputersociety.org/10.1109/MED.2009.5164541`.

[393] H.D. Nguyen and N. Revol. Certification of a Numerical Result: Use of Interval Arithmetic and Multiple Precision. In *NSV-3: Third International Workshop on Numerical Software Verification*, Edinburgh, Royaume-Uni, 2010. `http://hal.inria.fr/inria-00544798/en/`.

[394] H.D. Nguyen and N. Revol. Influence of the Computing Precision on the Certifcation of Linear System Solving: Doubling the Computing Precision for the Residual and the Solution. `http://perso.ens-lyon.fr/hong.diep.nguyen/publics/Nguyen_Revol_NSV_3.pdf`, 2010.

[395] H.D. Nguyen and N. Revol. Refining and verifying the solution of a linear system. In *SNC 2011 - Symbolic Numeric Computation*, 2011. `http://hal.archives-ouvertes.fr/hal-00641659/`.

[396] H.D. Nguyen and N. Revol. Solving and Certifying the Solution of a Linear System. *Reliable Computing*, 15(2):120–131, 2011. `http://hal.inria.fr/inria-00546856/`.

[397] J. Niebling and G. Eichfelder. A branch-and-bound based algorithm for nonconvex multiobjective optimization. *SIAM Journal on Optimization*, 29(1), 794–821, 2019. `https://www.db-thueringen.de/receive/dbt_mods_00034242`.

[398] I. A. Nikas and T. N. T.N. Grapsa. Bounding the zeros of an interval equation. *Applied Mathematics and Computation*, 213(2):466–478, 2009. doi:10.1016/j.amc.2009.03.041.

[399] Jordan Ninin. *Optimisation Globale basée sur l'Analyse d'Intervalles: Relaxation Affine et Limitation de la Mémoire*. PhD thesis, Institut National Polytechnique de Toulouse - INPT, 2010. `http://tel.archives-ouvertes.fr/tel-00580651`.

[400] T. Nishi, T. Ogita, S. Oishi, and S. M. Rump. A Method for the Generation of a Class of Ill-conditioned Matrices. In *2008 International Symposium on Nonlinear Theory and its Applications, NOLTA'08, Budapest, Hungary, September 7-10*, pages 53–56, 2008. `http://www.ti3.tu-harburg.de`.

[401] X.-M. Niu, T. Sakurai, and H. Sugiura. A verified method for bounding clusters of zeros of analytic functions. *J. Comput. Appl. Math.*, 199:263–270, 2007.

[402] L. Notash. Analytical Methods for Solution Sets of Interval Wrench. In *Proceedings of the ASME 2015 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference IDETC/CIE 2015 August 2-5, 2015, Boston, Massachusetts, USA*, 2015. DETC2015-47575.

[403] L. Notash. On the Solution Set for Positive Wire Tension With Uncertainty in Wire-Actuated Parallel Manipulators. *ASME Journal of Mechanisms and Robotics*, 8(4):044506–1–044506–9, 2016.

[404] C. Ocampo-Martínez, S. Tornil, and V. Puig. Robust fault detection using interval constraints satisfaction and set computations. In *Proceedings of IFAC SAFEPROCESS, Beijing (China)*, 2006. `http://websac.upc.es/wwwsac/users/carlosoc/publications.html`.

[405] T. Ogita. Accurate Matrix Factorization: Inverse LU and Inverse QR Factorizations. *SIAM J. Matrix Anal. Appl.*, 31(5):2477–2497, 2010.

[406] T. Ogita. Exact Determinant of Integer Matrices. In M. Beer, R.L. Muhanna, and R.L. Mullen, editors, *4th International Workshop on Reliable Engineering Computing (REC 2010)*, 2010. `http://www.eng.nus.edu.sg/civil/REC2010/documents/papers/038.pdf`.

[407] T. Ogita. Accurate and verified numerical computation of the matrix determinant. *International Journal of Reliability and Safety*, 6(1–2):242–254, 2011. `http://inderscience.metapress.com/content/q667g1504n65uk1l/`.

[408] T. Ogita and S. Oishi. Fast Inclusion of Interval Matrix Multiplication. *Reliable Computing*, 11(3):191–205, 2005. `http://www.springerlink.com/content/n5x328781323x372/fulltext.pdf`.

[409] T. Ogita and S. Oishi. Fast verified solutions of linear systems. *Japan Journal of Industrial and Applied Mathematics*, 26(2–3):169–190, 2009. DOI: 10.1007/BF03186530, `http://www.springerlink.com/content/dp55lx4464543j31/`.

[410] T. Ogita and S. Oishi. Tight Enclosures of Solutions of Linear Systems. In C. Bandle, L. Losonczi, A. Gilányi, Z. Páles, and M. Plum, editors, *Inequalities and Applications*, volume 157 of *International Series of Numerical Mathematics*, pages 167–178. Birkhäuser, 2009. DOI 10.1007/978-3-7643-8773-0_16, `http://www.springerlink.com/content/q04m34u861724223/`.

[411] T. Ogita, S.M. Rump, and S. Oishi. Verified Solutions of Sparse Linear Systems by LU factorization. `http://www.ti3.tu-harburg.de/paper/rump/directsparse20050719.pdf`.

[412] T. Ogita, S.M. Rump, and S. Oishi. Accurate Sum and Dot Product with Applications. *Proceedings of 2004 IEEE International Symposium on Computer Aided Control Systems Design, Taipei*, pages 152–155, 2004. `http://www.ti3.tu-harburg.de/paper/rump/OgRuOi04a.pdf`.

[413] T. Ogita, S.M. Rump, and S. Oishi. Accurate Sum and Dot Product. *SIAM Journal on Scientific Computing (SISC)*, 26(6):1955–1988, 2005. `http://www.ti3.tu-harburg.de/paper/rump/OgRuOi05.pdf`.

[414] T. Ogita, S.M. Rump, and S. Oishi. Verified solution of linear systems without directed rounding. Technical Report 2005-04, Advanced Research Institute for Science and Engineering, Waseda University, Tokyo, Japan, 2005.

[415] T. Ohta, T. Ogita, S.M. Rump, and S. Oishi. Numerical Method for Dense Linear Systems with Arbitrariliy Ill-conditioned Matrices. In *Proceedings of 2005 International Symposium on Nonlinear Theory and its Applications, Bruge, Belgium, October 18–21*, pages 745–748, 2005. `http://www.ti3.tu-harburg.de/paper/rump/OhOgRuOi05a.pdf`.

[416] T. Ohta, T. Ogita, S.M. Rump, and S. Oishi. Numerical Verification Method for Arbitrarily Ill-conditioned Linear Systems. *Transactions on the Japan Society for Industrial and Applied Mathematics (Trans. JSIAM)*, 15(3):269–287, 2005. `http://www.ti3.tu-harburg.de/paper/rump/OhOgRuOi05.pdf`.

[417] S. Oishi, T. Ogita, and S. M. Rump. Iterative Refinement for Ill-conditioned Linear Equations. In *2008 International Symposium on Nonlinear Theory and its Applications, NOLTA'08, Budapest, Hungary, September 7-10*, pages 516–519, 2008. `http://www.ti3.tu-harburg.de/paper/rump/OiOgRu08.pdf`.

[418] S. Oishi and S.M. Rump. Fast verification of solutions of matrix equations. *Numer. Math.*, 90(4):755–773, 2002. `http://www.ti3.tu-harburg.de`.

[419] S. Oishi, K. Tanabe, T. Ogita, and S.M. Rump. Convergence of Rump's method for inverting arbitrarily ill-conditioned matrices. *J. Comput. Appl. Math.*, 205(1):533–544, 2007. `http://www.ti3.tu-harburg.de`.

[420] H. Okazaki, K. Fujita, H. Honda, and H. Nakano. Rigorous Verification of Poincaré Map Generated by a Continuous Piece-Wise Linear Vector Field and Its Application. *IEICE Trans Fundamentals*, E88-A:810–817, 2005. `http://ietfec.oxfordjournals.org/cgi/reprint/E88-A/4/810.pdf`.

[421] H. Okazaki, C. Okazaki, H. Honda, and H. Nakano. Rigorous verification of formal chaos produced by one-dimensional discrete dynamical system with use of interval arithmetic. *Circuits and Systems*, 2:1597–1600, 2005. `http://ieeexplore.ieee.org/iel5/10622/33557/01594421.pdf?tp=&isnumber=&arnumber=1594421`.

[422] F. Ouyang et al. *Interval analysis of the small-signal stability of grid-connected voltage-source converter system considering multiparameter uncertainty*. IET Energy Systems Integration, 2024. DOI: 10.1049/esi2.12141.

[423] L. Overton. *Numerical Computing with IEEE Floating Point Arithmetic*. Cambridge University Press, 2001.

[424] K. Ozaki. Studies on Portable Self-validating Methods with Accurate Computations, 2007. (in Japanese) `http://dspace.wul.waseda.ac.jp/dspace/bitstream/2065/28502/3/Honbun-4507.pdf`.

[425] K. Ozaki, T. Ogita, S. Miyajima, S. Oishi, and S.M. Rump. Componentwise Verified Solutions of Linear System Suited for Java. In *Proceedings of 2005 International Symposium on Nonlinear Theory and its Applications, Bruge, Belgium, October 18–21*, pages 749–752, 2005. `http://www.ti3.tu-harburg.de`.

[426] K. Ozaki, T. Ogita, S. Miyajima, S. Oishi, and S.M. Rump. A method of obtaining verified solutions for linear systems suited for Java. *Journal of Computational and Applied Mathematics (JCAM)-Special issue on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 2004)*, 199(2):337–344, 2006. `http://www.ti3.tu-harburg.de`.

[427] K. Ozaki, T. Ogita, and S. Oishi. Tight and efficient enclosure of matrix multiplication by using optimized BLAS. *Numerical Linear Algebra with Applications*, 2010. `http://dx.doi.org/10.1002/nla.724`.

[428] K. Ozaki, T. Ogita, and S. Oishi. Improvement of error-free splitting for accurate matrix multiplication. *Journal of Computational and Applied Mathematics*, 288:127–140, 2015.

[429] K. Ozaki, T. Ogita, S. M. Rump, and S. Oishi. Accurate Matrix Multiplication with Multiple Floating-point Numbers. In *Proceedings of 2007 International Symposium on Nonlinear Theory and its Applications, Vancouver, Canada, September 16-19*, 2007. `http://www.ti3.tu-harburg.de/paper/rump/OzOgRuOi07.pdf`.

[430] K. Ozaki, T. Ogita, S. M. Rump, and S. Oishi. Accurate Matrix Multiplication by using Level 3 BLAS Operation. In *2008 International Symposium on Nonlinear Theory and its Applications, NOLTA'08, Budapest, Hungary, September 7-10*, pages 508–511, 2008. `http://www.ti3.tu-harburg.de/paper/rump/OzOgRuOi08.pdf`.

[431] K. Ozaki, T. Ogita, S.M. Rump, and S. Oishi. Fast and robust algorithm for geometric predicates using floating-point arithmetic. *Trans. JSIAM*, 4(16):553–562, 2006. `http://www.ti3.tu-harburg.de/paper/rump/OzOgRuOi06.pdf`.

[432] K. Ozaki, T. Ogita, S.M. Rump, and S. Oishi. Adaptive and Efficient Algorithm for 2D Orientation Problem. *Japan J. Indust. Appl. Math.*, 26:215–231, 2009. `http://www.ti3.tu-harburg.de`.

[433] K. Ozaki, T. Ogita, S.M. Rump, and S. Oishi. Fast algorithms for floating-point interval matrix multiplication. *Journal of Computational and Applied Mathematics*, 236(7):1795–1814, 2012. doi:10.1016/j.cam.2011.10.011, `http://www.sciencedirect.com/science/article/pii/S0377042711005449`.

[434] K. Ozaki, T. Ogita, Oishi und S., and S.M. Rump. Error-free transformations of matrix multiplication by using fast routines of matrix multiplication and its applications. *Numerical Algorithms*, 59(1), 2011. `http://www.ti3.tu-harburg.de`.

[435] F. Pacella, M. Plum, and D. Rütters. A computer-assisted existence proof for Emden's equation on an unbounded L-shaped domain. *ArXiv e-prints*, 2016. `http://adsabs.harvard.edu/abs/2016arXiv160101543P`.

[436] L. Pál. A Global Optimization Algorithm for INTLAB. Conference of PhD Students in Computer Science, Institute of Informatics of the University of Szeged, p. 46, `http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.139.3062&rep=rep1&type=pdf#page=45`, 2008.

[437] L. Pál and T. Csendes. Global Optimization Software—INTLAB implementation of an interval global optimization algorithm, 2009. `http://www.inf.u-szeged.hu/~csendes/oms.pdf`.

[438] L. Pal and T. Csendes. INTLAB implementation of an interval global optimization algorithm. *Optimization Methods and Software*, 24(4–5):749–759, 2009. `http://www.ingentaconnect.com/content/tandf/goms/2009/00000024/F0020004/art00014`.

[439] L. Pál and T. Csendes. Traffic Flow Prediction in Service Networks. Conference of PhD Students in Computer Science, Institute of Informatics of the University of Szeged, p. 60, `http://www.inf.u-szeged.hu/~cscs/pdf/CSCS2010-proceedings.pdf#page=60`, 2010.

[440] I. Papamichail and C.S. Adjiman. A Rigorous Global Optimization Algorithm for Problems with Ordinary Differential Equations . *Journal of Global Optimization*, 24(1):1–33, 2002. `http://www.springerlink.com/content/q2e61m5re2ngkm9k/fulltext.pdf`.

[441] A. de Paula and D.M. Raimondo and G.V. Raffo and B. Teixeira. Set-based state estimation for discrete-time constrained nonlinear systems: An approach based on constrained zonotopes and DC programming. *Automatica*, 2024. `DOI:10.1016/j.automatica.2023.111401`.

[442] M. Peixoto, E. Nepomuceno, H. Junior, S. Martins, and G. Amaral. Simulation of Dynamical Systems with Interval Analysis: A case study of RLC Circuit. `https://arxiv.org/abs/1612.02674`, 2016.

[443] M.L.C. Peixoto, M.T.R. Matos, W.R. Lacerda Júnior, S.A.M. Martins, and E.G. Nepomuceno. Identification of dynamic systems with interval arithmetic. `https://arxiv.org/abs/1708.03214`, 2017.

[444] M.L.C Peixoto, E.G. Nepomuceno, H.M. Júnior, S.A.M. Martins, and G.F.V. Amaral. Simulação de sistemas dinâmicos com análise intervalar: Um estudo de caso com o circuito rlc. In *Conferência XXI Congresso Brasileiro de Automática - CBA2016*, pages 2497–2502, 2016. `https://www.researchgate.net/publication/309644048_Simulacao_de_Sistemas_Dinamicos_com_Analise_Intervalar_Um_estudo_de_cado_com_o_circuiro_RLC`.

[445] G. V. Pendse, D. Borsook, and L. Becerra. ADIS: A robust pursuit algorithm for probabilistic and constrained blind source separation. *NeuroImage*, 47, Supplement 1:S39–S41, 2009. doi:10.1016/S1053-8119(09)70856-0, `http://arxiv.org/PS_cache/arxiv/pdf/0902/0902.4879v1.pdf`.

[446] C.-C. Peng. Numerical computation of orbits and rigorous verification of existence of snapback repellers. *Chaos*, 17:013107–1–8, 2007. DOI: 10.1063/1.2430907.

[447] A Pereira and M. Althoff. Safety control of robots under computed torque control using reachable sets. In *Proc. of the IEEE International Conference on Robotics and Automation*, 2015. Available from `http://www6.in.tum.de/Main/Publications/Pereira2015.pdf`.

[448] M.P. Petito and K.R. Fowler. Adaptive Implicit Temporal Integration of ODEs with Interval Computations, 2007.

[449] I. Petković and V. Petković. Interval matrix models of design iteration. In *International Conference on Electronics and Information Engineering (ICEIE), 2010*, pages V1–20–V1–24, 2010. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5559830&tag=1`.

[450] S. G. Pierce, K. Worden, and A. Bezazi. Uncertainty analysis of a neural network used for fatigue lifetime prediction. *Mechanical Systems and Signal Processing*, 22(6):1395–1411, 2008. doi:10.1016/j.ymssp.2007.12.004.

[451] S.G. Pierce, K. Worden, and G. Manson. A novel information-gap technique to assess reliability of neural network-based damage detection. *Journal of Sound and Vibration*, 293(1–2):96–111, 2006. `http://dx.doi.org/10.1016/j.jsv.2005.09.029`.

[452] Marcin Pluciński. Application of Mini-Models to the Interval Information Granules Processing. In A. Wiliński, I.E. Fray, and J. Pejaś, editors, *Soft Computing in Computer and Information Science*, volume 342 of *Advances in Intelligent Systems and Computing*, pages 37–48. Springer International Publishing, 2015. `http://dx.doi.org/10.1007/978-3-319-15147-2_4`.

[453] M. Plum. Computer-Assisted Proofs for Semilinear Elliptic Boundary Value Problems. *Japan J. Indust. Appl. Math.*, 26(2):419–442, 2009.

[454] Ph. Poignet, N. Ramdani, and O.A. Vivas. Robust estimation of parallel robot dynamic parameters with interval analysis. In *Proceedings of the 42nd IEEE Conference on Decision and Control, Maui, Hawaii USA*, 2003. `http://papyrus.lirmm.fr/GEIDEFile/poignet.PDF?Archive=191076891925&File=poignet_PDF`.

[455] J.M. Porta, F. Thomas, L. Ros, and C. Torras. A Branch-and-Prune Algorithm for Solving Systems of Distance Constraints. In *Proceedings of the 2003 IEEE International Conference on Robotics & Automation Taipei, Taiwan, September 14-19, 2003*, 2003. `http://cgi.di.uoa.gr/~erga/mobio/papers/PoThRoTo03distIcra.pdf`.

[456] M. C. Montairo do Prado. *Demonstrações assistidas por computador para equações diferenciais ordinárias*. PhD thesis, São Carlos : Instituto de Ciências Matemáticas e de Computação, University of São Paulo, 2015. Master's Dissertation in Mathemática, available from `http://www.teses.usp.br/teses/disponiveis/55/55135/tde-03072015-104300/`.

[457] M.L.M. Prado, A.D.S. Lordelo, and P.A.V. Ferreira. Robust Pole Assignment by State Feedback Control Using Interval Analysis. In *16th IFAC World Congress, Prague*, 2005. `http://www.nt.ntnu.no/users/skoge/prost/proceedings/ifac2005/Fullpapers/02314.pdf`.

[458] J.D. Pryce and G.F. Corliss. Interval Arithmetic with Containment Sets. `http://www.cas.mcmaster.ca/~isl/Publications/IntvlArithCsets.pdf`.

[459] K. Pugazhendhi and A.K. Dhingra. Reliability based design optimization using automatic differentiation. In *Proc. ASME 2011 International Mechanical Engineering Congress and Exposition IMECE 2011*, Denver, Colorado, USA, 2011. `ftp://202.38.89.18/incoming/ASME/data/pdfs/trk-19/IMECE2011-65912.pdf`.

[460] D.M. Raimondo, S. Riverso, S. Summers, C.N. Jones, J. Lygeros, and M. Morari. A Set-Theoretic Method for Verifying Feasibility of a Fast Explicit Nonlinear Model Predictive Controller. In *Distributed Decision Making and Control*, volume 417 of *Lecture Notes in Control and Information Sciences*, pages 289–311. Springer, 2012. DOI: 10.1007/978-1-4471-2265-4_13, `http://www.springerlink.com/content/50683724051162p8/`.

[461] D.M. Raimondo, M. Rubagotti, C.N. Jones, L. Magni, A. Ferrara, and M. Morari. Multirate sliding mode disturbance compensation for model predictive control. *International Journal of Robust and Nonlinear Control*, 2014. `http://dx.doi.org/10.1002/rnc.3244`.

[462] M.V. Rama Rao and A. Pownuk. Stress distribution in a reinforced concrete flexural member with uncertain structural parameters, part I. Technical Report 2007-5, Department of Mathematical Sciences, The University of Texas, El Paso, 2007. `http://www.math.utep.edu/preprints/2007/2007-05.pdf`.

[463] A.V. Rao, D.A. Benson, C. Darby, M.A. Patterson, C. Francolin, I. Sanders, and G. Huntington. Algorithm 902: GPOPS, A MATLAB Software for Solving Multiple-Phase Optimal Control Problems Using the Gauss Pseudospectral Method. *ACM Transactions on Mathematical Software*, 37(2), 2010. `http://vdol.mae.ufl.edu/tomsgpm.pdf`.

[464] C.L. Rasmussen and P. Glarborg. Direct Partial Oxidation of Natural Gas to Liquid Chemicals: Chemical Kinetic Modeling and Global Optimization. *Industrial & Engineering Chemistry Research*, 47(17):6579–6588, 2008. `http://pubs.acs.org/doi/abs/10.1021/ie800137d`.

[465] A. Rauh. *Theorie und Anwendung von Intervallmethoden für Analyse und Entwurf robuster und optimaler Regelungen dynamischer Systeme.* Number 1148 in Fortschritt-Berichte VDI, Reihe 8: Mess-, Steuerungs- und Regelungstechnik. VDI Verlag, 2008.

[466] A. Rauh, E. Auer, and E.P. Hofer. A Novel Interval Method for Validating State Enclosures of the Solution of Initial Value Problems. Technical report, Universität Ulm, Fakultät für Ingenieurwissenschaften und Informatik, 2005. `http://vts.uni-ulm.de/doc.asp?id=6321`.

[467] A. Rauh and E.P. Hofer. Interval Methods for Optimal Control. In G. Buttazzo and A. Frediani, editors, *Proc. of the 47th Workshop on Variational Analysis and Aerospace Engineering, Erice, Italy, 2007.* Springer-Verlag, 2007.

[468] A. Rauh, M. Kletting, H. Aschemann, and E.P. Hofer. Robust Controller Design for Bounded State and Control Variables and Uncertain Parameters Using Interval Methods. In *Proceedings of the 2005 International Conference on Control and Automation (ICCA2005), Budapest, Hungary*, pages 777–782, 2005. `http://ieeexplore.ieee.org/iel5/10234/32635/01528228.pdf?arnumber=1528228`.

[469] A. Rauh, J. Minisini, and E.P. Hofer. Interval Techniques for Design of Optimal and Robust Control Strategies. In *CD-Proc. of the 12th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics SCAN 2006, Duisburg, Germany.* IEEE Computer Society, 2007.

[470] A. Rauh, J. Minisini, and E.P. Hofer. Towards the Development of an Interval Arithmetic Environment for Validated Computer-Aided Design and Verification of Systems in Control Engineering. In A. Cuyt, W. Krämer, W. Luther, and P. Markstein, editors, *Numerical Validation in Current Hardware Architectures*, volume 5492 of *LNCS*. Springer, 2009. `http://books.google.de/books?hl=de&lr=&id=FkdxeneVCPAC&oi=fnd&pg=PT184&dq=INTLAB&ots=3rT-6c7pbR&sig=1KnPoHJBfkioFKWKBWjreqCETlI#v=onepage&q=INTLAB&f=false`.

[471] A. Rauh, L. Senkel, J. Kersten, and H. Aschemann. Reliable control of high-temperature fuel cell systems using interval-based sliding mode techniques. *IMA Journal of Mathematical Control and Information*, 2014. `http://imamci.oxfordjournals.org/content/early/2014/12/30/imamci.dnu051.full.pdf+html`.

[472] A. Ramirez-Trujillo and A. Pelaez-Repiso and J.I. Pelaez. Integrating multi-dimensional decision-making and quorum valuation for sustainability assessment of the cruise industry. *Journal of Environmental Planning and Management*, 2024. `DOI:10.1080/09640568.2024.2316685`.

[473] A. Rauh and J. Soueidan and S. Rohou and L. Jaulin. Experimental Validation of an Ellipsoidal State Estimation Procedure for a Magnetic Levitation System. IFAC-PapersOnLine, 56(2), p. 8494–8499. `http://10.1016/j.ifacol.2023.10.1138`.

[474] G. Rebner. Verified Add-ons for the DSI toolbox. In I. Elishakoff, V. Kreinovich, W. Luther, and E.D. Popova, editors, *Report from Dagstuhl Seminar 11371—Uncertainty modeling and analysis with intervals: Foundations, tools, applications*, 2011. `http://drops.dagstuhl.de/opus/volltexte/2011/3318/pdf/dagrep_v001_i009_p026_s11371.pdf#page=24`.

[475] R. Reinhardt, A. Hoffmann, and T. Gerlach. *Nichtlineare Optimierung: Theorie, Numerik und Experimente.* Springer Heidelberg, 2013.

[476] J. Reinking. GNSS-SNR water level estimation using global optimization based on interval analysis. *Journal of Geodetic Science*, 6(1), 2016. doi:10.1515/jogs-2016-0006.

[477] N. Revol. Arithmétique par intervalles. *Calculateurs Parallèles*, 13:387–426, 2001. `http://www.inria.fr/rrrt/rr-4267.html`.

[478] N. Revol. Introduction à arithmétique par intervalles. Technical Report 4297, Laboratoire de l'Informatique du Parallélisme (LIP), École Normale Supérieure de Lyon et laboratoire ANO, Université des Sciences et Technologies de Lille, 2001. `http://hal.inria.fr/docs/00/07/22/90/PDF/RR-4297.pdf`.

[479] N. Revol. Newton's algorithm using multiple precision interval arithmetic. *Numerical Algorithms*, 34(2):417–426, 2003. `http://www.inria.fr/rrrt/rr-4334.html`.

[480] N. Revol. Standardized Interval Arithmetic and Interval Arithmetic Used in Libraries. In K. Fukuda, J. Hoeven, M. Joswig, and N. Takayama, editors, *Mathematical Software - ICMS 2010*, volume 6327 of *Lecture Notes in Computer Science*, pages 337–341. Springer Berlin / Heidelberg, 2010. `http://dx.doi.org/10.1007/978-3-642-15582-6_54`.

[481] N. Revol and F. Rouillier. Motivations for an Arbitrary Precision Interval Arithmetic and the MPFI Library. *Reliable Computing*, 11(4):275–290, 2005. `http://www.springerlink.com/content/q17l0u8840151310/fulltext.pdf`.

[482] N. Revol. Affine Iterations and Wrapping Effect: Various Approaches. *Acta Cybernetica*, 26(1):129–147, 2023. `DOI:10.14232/actacyb.295251`.

[483] H.M. Rodrigues Júnior, M.L.C Peixoto, L.G. Nardo, T.E. Nazare, and E.G. Nepomuceno. Cálculo de pontos fixos por análise intervalar para mapas discretos. In *Conferência XXI Congresso Brasileiro de Automática - CBA2016*, 2016.

[484] J. Rohn. A Handbook of Results on Interval Linear Problems. `http://www.cs.cas.cz/~rohn`.

[485] J. Rohn. Verification software in MATLAB / INTLAB—a collection of verification routines. `http://www.cs.cas.cz/rohn/matlab/`.

[486] J. Rohn. Description of all solutions of a linear complementary problem. *Electron. J. Linear Algebra*, 18:246–252, 2009. `http://www.emis.ams.org/journals/ELA/ela-articles/articles/vol18_pp246-252.pdf`.

[487] J. Rohn. On unique solvability of the absolute value equation. *Optimization Letters*, 3(4):603–606, 2009. DOI 10.1007/s11590-009-0129-6, `http://www.springerlink.com/content/t9n3gn4033l356r7/`.

[488] J. Rohn. An Algorithm for Computing the Hull of the Solution Set of Interval Linear Equations. Technical Report V-1074, Institute of Computer Science, Academy of Sciences of the Czech Republic, 2010. `ftp://ftp.cs.cas.cz/pub/reports/v1074-10.pdf`.

[489] J. Rohn. Inverse Interval Matrix: A Survey. Technical Report V-1073, Institute of Computer Science, Academy of Sciences of the Czech Republic, 2010. `ftp://ftp.cs.cas.cz/pub/reports/v1073-10.pdf`.

[490] J. Rohn. An algorithm for computing the hull of the solution set of interval linear equations. *Linear Algebra and its Applications (LAA)*, 435(2):193–201, 2011. `http://www.sciencedirect.com/science/article/pii/S0024379511001418`.

[491] J. Rohn. Intlab primer. Technical Report V-1117, Institute of Computer Science, Academy of Sciences of the Czech Republic, 2011. `http://uivtx.cs.cas.cz/~rohn/publist/primer.pdf`.

[492] J. Rohn. Verified solutions of linear equations. Technical Report V-1121, Institute of Computer Science, Academy of Sciences of the Czech Republic, 2011. `http://uivtx.cs.cas.cz/~rohn/publist/ks.pdf`.

[493] J. Rohn. VERSOFT: Guide. Technical Report V-1118, Institute of Computer Science, Academy of Sciences of the Czech Republic, 2011. `http://www.uivt.cas.cz/ics/reports/v1118-11.pdf`.

[494] J. Rohn and R. Farhadsefat. Inverse Interval Matrix: A Survey. *Electronic Journal of Linear Algebra (ELA)*, 22:704–719, 2011. `http://www.emis.ams.org/journals/ELA/ela-articles/articles/vol22_pp704-719.pdf`.

[495] M. Rosik and R. Dehnert and S. Lerch and B. Tibken. Observability Analysis of Nonlinear Input-Linear Systems Based on Lie Derivations Using Interval Arithmetic. *Conference: 2023 IEEE 11th International Conference on Systems and Control (ICSC)*. `DOI:10.1109/ICSC58660.2023.10449813`.

[496] E.J. Rothwell and M.J. Cloud. Automatic Error Analysis Using Intervals. accepted for publication in IEEE Trans. Education, 2011. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5711698&tag=1`.

[497] J. Roy and R.B. Kearfott. Global Optimization and Singular Nonlinear Programs: New Techniques. *Reliable Computing*, 15(3):242–250, 2011.

[498] S. M. Rump and S. Oishi. Verified Error Bounds for Double Roots of Nonlinear Equations. In *2009 International Symposium on Nonlinear Theory and its Applications, NOLTA'09, Sapporo, Japan*, 2009. `http://www.ti3.tu-harburg.de`.

[499] S.M. Rump. Fast and parallel interval arithmetic. *BIT Numerical Mathematics*, 39(3):539–560, 1999. `http://www.ti3.tu-harburg.de/paper/rump/Ru99b.pdf`.

[500] S.M. Rump. Ill-conditioned Matrices are componentwise near to singularity. *SIAM Review (SIREV)*, 41(1):102–112, 1999. `http://www.ti3.tu-harburg.de`.

[501] S.M. Rump. Ill-conditionedness need not be componentwise near to ill-posedness for least squares problems. *BIT Numerical Mathematics*, 39(1):143–151, 1999. `http://www.ti3.tu-harburg.de`.

[502] S.M. Rump. Interval computations with INTLAB. *Brazilian Electronic Journal on Mathematics of Computation (BEJMC)*, 1, 1999. `http://www.ti3.tu-harburg.de/paper/rump/Rump99.pdf`.

[503] S.M. Rump. INTLAB - INTerval LABoratory. In Tibor Csendes, editor, *Developments in Reliable Computing*, pages 77–104. Kluwer Academic Publishers, Dordrecht, 1999. `http://www.ti3.tu-harburg.de/rump/intlab/index.html`.

[504] S.M. Rump. Verified Solution of Large Linear and Nonlinear Systems. In H. Bulgak and C. Zenger, editors, *Error Control and adaptivity in Scientific Computing*, pages 279–298. Kluwer Academic Publishers, 1999.

[505] S.M. Rump. A simple application of interval arithmetic. *Brazilian Electronic Journal on Mathematics of Computation (BEJMC)*, 2, 2000. `http://www.ti3.tu-harburg.de/paper/rump/Ru00.pdf`.

[506] S.M. Rump. Computational Error Bounds for Multiple or Nearly Multiple Eigenvalues. *Linear Algebra and its Applications (LAA)*, 324:209–226, 2001. `http://www.ti3.tu-harburg.de/paper/rump/Ru99c.pdf`.

[507] S.M. Rump. Fast verification algorithms in Matlab. In G. Alefeld, J. Rohn, S. Rump, and T. Yamamoto, editors, *Symbolic Algebraic Methods and Verification Methods*, pages 209–226. Springer Mathematics, 2001. `http://www.ti3.tu-harburg.de/paper/rump/Ru01.pdf`.

[508] S.M. Rump. Interval Arithmetic and Fuzzy Logic. In *Proc. of the International NAISO congress on Information Science Innovations (ISI'2001), Dubai*, pages 379–386, 2001. `http://www.ti3.tu-harburg.de`.

[509] S.M. Rump. Rigorous and portable standard functions. *BIT Numerical Mathematics*, 41(3):540–562, 2001. `http://www.ti3.tu-harburg.de/paper/rump/Ru01b.pdf`.

[510] S.M. Rump. Self-validating methods. *Linear Algebra and its Applications (LAA)*, 324:3–13, 2001. `http://www.ti3.tu-harburg.de/paper/rump/Ru01a.pdf`.

[511] S.M. Rump. Algorithms for Computing Validated Results. In J. Grabmeier, E. Kaltofen, and V. Weispfennig, editors, *Computer Algebra Handbook*, chapter 2.12.2, pages 110–112. Springer, 2003. `http://www.ti3.tu-harburg.de/rump/Ru03e.pdf`.

[512] S.M. Rump. Structured Perturbations Part I: Normwise Distances. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 25(1):1–30, 2003. `http://www.ti3.tu-harburg.de`.

[513] S.M. Rump. Structured Perturbations Part II: Componentwise Distances. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 25(1):31–56, 2003. `http://www.ti3.tu-harburg.de`.

[514] S.M. Rump. Ten methods to bound multiple roots of polynomials. *J. Comput. Appl. Math. (JCAM)*, 156:403–432, 2003. `http://www.ti3.tu-harburg.de/paper/rump/Ru03c.pdf`.

[515] S.M. Rump. Computer-Assisted Proofs I. *Bulletin of the Japan Society for Industrial and Applied Mathematics (Bull. JSIAM)*, 14(3):2–11, 2004. (in Japanese—translated by T. Ogita), `http://www.ti3.tu-harburg.de`.

[516] S.M. Rump. Computer-Assisted Proofs II. *Bulletin of the Japan Society for Industrial and Applied Mathematics (Bull. JSIAM)*, 14(4):44–57, 2004. (in Japanese—translated by T. Ogita), `http://www.ti3.tu-harburg.de`.

[517] S.M. Rump. Computer-assisted proofs and Self-Validating Methods. In B. Einarsson, editor, *Handbook on Accuracy and Reliability in Scientific Computation*, pages 195–240. SIAM, 2005. `http://www.ti3.tu-harburg.de/paper/rump/Ru05a.pdf`.

[518] S.M. Rump. High Precision Evaluation of Nonlinear Functions. In *Proceedings of 2005 International Symposium on Nonlinear Theory and its Applications, Bruge, Belgium, October 18–21*, pages 733–736, 2005. `http://www.ti3.tu-harburg.de/paper/rump/Ru05c.pdf`.

[519] S.M. Rump. Eigenvalues, pseudospectrum and structured perturbations. *Linear Algebra and its Applications (LAA)*, 413:567–593, 2006. `http://www.ti3.tu-harburg.de/paper/rump/Ru06.pdf`.

[520] S.M. Rump. Error bounds for extremely ill-conditioned problems. In *Proceedings of 2006 International Symposium on Nonlinear Theory and its Applications, Bologna, Italy, September 11-14*, 2006. `http://www.ti3.tu-harburg.de`.

[521] S.M. Rump. Verification of Positive Definiteness. *BIT Numerical Mathematics*, 46:433–452, 2006. `http://www.ti3.tu-harburg.de/paper/rump/Ru06c.pdf`.

[522] S.M. Rump. Error-Free Transformations and ill-conditioned problems. In *Proceedings of the "International workshop on verified computations and related topics", University of Karlsruhe, March 7-10*, 2009. `http://www.ti3.tu-harburg.de`.

[523] S.M. Rump. Inversion of extremely ill-conditioned matrices in floating-point. *Japan J. Indust. Appl. Math. (JJIAM)*, 26:249–277, 2009. `http://www.ti3.tu-harburg.de/`.

[524] S.M. Rump. Ultimately Fast Accurate Summation. *SIAM Journal on Scientific Computing (SISC)*, 31(5):3466–3502, 2009. `http://www.ti3.tu-harburg.de`.

[525] S.M. Rump. A Model Problem for Global Optimization. In *Nonlinear Theory and Its Applications (NOLTA)*, volume 1, pages 1–6. IEICE, 2010. `http://www.ti3.tu-harburg.de/paper/rump/Ru09a.pdf`.

[526] S.M. Rump. Accurate and Reliable Computing in Floating-Point Arithmetic. In K. Fukuda et al., editor, *Proceedings of the Third International Congress on Mathematical Software, Kobe, Japan, September 13-17, 2010 (ICMS 2010)*, volume 6327 of *Lecture Notes in Computer Science (LNCS)*, pages 105–108, 2010. `http://www.springerlink.com/content/b201872815051165/`.

[527] S.M. Rump. Verification methods: Rigorous results using floating-point arithmetic. *Acta Numerica*, 19:287–449, 2010. `http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=7701752`.

[528] S.M. Rump. Verified bounds for singular values, in particular for the spectral norm of a matrix and its inverse. *BIT Numerical Mathematics*, 51(2):367–384, 2011. `http://www.ti3.tu-harburg.de`.

[529] S.M. Rump. IEEE754 precision-k base-β arithmetic inherited by precision-mbase-β; arithmeticfor $k < m$. *ACM Trans. Math. Software*, 0(0), 2013.

[530] S.M. Rump. Mathematically Rigorous Global Optimization in Floating-Point Arithmetic. *Optimization Methods & Software*, 2018. `https://doi.org/10.1080/10556788.2018.1435649`.

[531] S.M. Rump and S. Graillat. Verified error bounds for multiple roots of systems of nonlinear equations. *Numerical Algorithms*, 54(3):359–377, 2009. DOI 10.1007/s11075-009-9339-3, `http://www.ti3.tu-harburg.de`.

[532] S.M. Rump and Kashiwagi M. Implementation and improvements of affine arithmetic. *Nonlinear Theory and Its Applications, IEICE,*, 2(3):1101–1119, 2014. `http://www.ti3.tu-harburg.de/paper/rump/RuKas14.pdf`.

[533] S.M. Rump and T. Ogita. Super-fast validated solution of linear systems. *Journal of Computational and Applied Mathematics (JCAM), Special issue on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 2004)*, 199(2):199–206, 2007. `http://www.ti3.tu-harburg.de/paper/rump/RuOg05.pdf`.

[534] S.M. Rump, T. Ogita, and S. Oishi. Accurate floating-point summation part I: Faithful rounding. *SIAM J. Sci. Comput.*, 31(1):189–224, 2008. `http://www.ti3.tu-harburg.de`.

[535] S.M. Rump, T. Ogita, and S. Oishi. Accurate floating-point summation part II: Sign, K-fold faithful and rounding to nearest. *Siam J. Sci. Comput.*, 31(2):1269–1302, 2008. `http://www.ti3.tu-harburg.de`.

[536] S.M. Rump and S. Oishi. Verified computation of a disc containing exactly k roots of a univariate nonlinear function. *Nonlinear Theory and Its Applications (NOLTA)*, E93-N(Vol. (10)), 2010. `http://www.jstage.jst.go.jp/article/nolta/1/1/1_89/_article`.

[537] S.M. Rump and H. Sekigawa. The ratio between the Toeplitz and the unstructured condition number. *Operator Theory: Advances and Applications*, 199:397–419, 2009. `http://www.ti3.tu-harburg.de`.

[538] S.M. Rump and J. Zemke. On eigenvector bounds. *BIT Numerical Mathematics*, 43:823–837, 2004. `http://www.ti3.tu-harburg.de/paper/rump/RuZe04.pdf`.

[539] S.M. Rump, P. Zimmermann, S. Boldo, and G. Melquiond. Computing predecessor and successor in rounding to nearest. *BIT Numerical Mathematics*, 49(2):419–431, 2009. `http://www.ti3.tu-harburg.de`.

[540] S.F.M. Rusli, M. Monsi, M.A. Hassan, and W.J. Leong. On the Interval Zoro Symmetric Single-step Procedure for Simultaneous Finding of Polynomial Zeros. *Applied Mathematical Sciences*, 5(75):3693–3706, 2011. `http://www.m-hikari.com/ams/ams-2011/ams-73-76-2011/rusliAMS73-76-2011.pdf`.

[541] C.S. Ryoo. Solving obstacle problems with guaranteed accuracy. *Computers and Mathematics with Applications*, 45(4):823–834, 2003. DOI: 10.1016/S0898-1221(03)00043-9.

[542] C.S. Ryoo. A numerical verification of solutions of free boundary problems. *Computers and Mathematics with Applications*, 48(3–4):429–435, 2004. `http://dx.doi.org/10.1016/j.camwa.2004.01.008`.

[543] C.S. Ryoo. Numerical verification of solutions for Signorini problems using Newton-like method. to appear in International Journal for Numerical Methods in Engineering, 2007. DOI: 10.1002/nme.2121.

[544] C.S. Ryoo and R.P. Agrawal. Numerical inclusion methods of solutions for variational inequalities. *International Journal for Numerical Methods in Engineering*, 54(11):1535–1556, 2002. DOI: 10.1002/nme.479.

[545] C.S. Ryoo and M.T. Nakao. Numerical verification of solutions for obstacle problems. *J. Comput. Appl. Math. (JCAM)*, 161(2):405–416, 2003. `http://dx.doi.org/10.1016/j.cam.2003.05.006`.

[546] N. V. Sahinidis. Global optimization. *Optimization Methods & Software*, 24(4–5):479–482, 2009. DOI 10.1080/10556780903135287.

[547] N. Sakamoto. Parallel online exact sum for Java 8. In *ICIS 2016, June 26-29, 2016, Okayama, Japan*, 2016. `https://www.computer.org/csdl/proceedings/icis/2016/0806/00/07550817.pdf`.

[548] F. Bünger and S.M. Rump. The determinant and complex Gershgorin circles. *Electronic Journal of Linear Algebra (ELA)*, 35:181–186, 2019.

[549] C.-P. Jeannerod and S.M. Rump. Improved error bounds for inner products in floating-point arithmetic. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 34(2):338–344, 2013.

[550] C.-P. Jeannerod and S.M. Rump. On relative errors of floating-point operations: optimal bounds and applications. *Math. Comp.*, 87:803–819, 2017.

[551] B. Kearfott, M. Nakao, S. Neumaier, S.M. Rump, S.P. Shary, and P. Van Hentenryck. Standardized notation in interval analysis. *Reliable Computing*, 15(1):7–13, 2010.

[552] R. Kobayashi, M. Lange, A. Minamihata, and S.M. Rump. Verified Inclusion of a Basis of the Null space. *Reliable Computing*, 27:26–41, 2020.

[553] M. Lange and S.M. Rump. Faithfully Rounded FLoating-Point Computations. to appear in ACM TOMS.

[554] M. Lange and S.M. Rump. Error estimates for the summation of real numbers with application to floating-point summation. *BIT*, 57:927–941, 2017.

[555] M. Lange and S.M. Rump. Sharp estimates for perturbation errors in summations. *Math.Comp.*, 88:349–368, 2019.

[556] M. Lange and S.M. Rump. Faithfully rounded floating-point operations. *ACM Trans. Math. Softw.*, 46, 2020.

[557] M. Lange and S.M. Rump. Verified inclusions for a nearest matrix of specified rank deficiency via a generalization of Wedin's sin(theta) theorem. *BIT*, 61:361–380, 2021.

[558] Marko Lange and Shin'ichi Oishi. A note on Dekker's FastTwoSum algorithm. *Numerische Mathematik*, 145(2):383–403, 2020.

[559] A. Minamihata, K. Sekine, T. Ogita, S.M. Rump, and S. Oishi. Improved error bounds for linear systems with H-Matrices. *Nonlinear Theory and Its Applications, IEICE*, 6(3):377–382, 2015.

[560] T. Nishi, S.M. Rump, and S. Oishi. Some properties and generation methods of integer matrices with large condition number. *IEICE technical Report, Circuits and Systems*, 110(86):13–18, 2010. http://ci.nii.ac.jp/naid/110007890169.

[561] T. Nishi, S.M. Rump, and S. Oishi. On the generation of very ill-conditioned integer matrices. *Nonlinear Theory and Its Applications, IEICE*, 2(2):226–245, 2011.

[562] T. Ogita, S.M. Rump, and S. Oishi. Verification of positive definiteness for large sparse matrices, 2008.

[563] T. Ohta, T. Ogita, S.M. Rump, and S. Oishi. A Method of Verified Numerical Computation for Ill-conditioned Linear System of Equations. *Journal of JSIAM*, 15(3):269–287, 2005.

[564] S. Oishi, T. Ogita, and S. M. Rump. Iterative Refinement for Ill-conditioned Linear Equations. *Japan J. Indust. Appl. Math.*, 26(2):465–476, 2009.

[565] T. Ota, S. Oishi, T. Ogita, and S.M. Rump. Numerical Verification Method for Simultaneous Linear Equations using Accurate Dot Product Calculation Algorithm. *Nihon Shimyureshon Gakkai Taikai Happyo Ronbunshu*, 23:345–348, 2004. http://sciencelinks.jp/j-east/article/200418/000020041804A0507036.php.

[566] T. Ota, S. Oishi, T. Ogita, and S.M. Rump. Verified Solutions of Extremely Ill-conditioned Linear Systems. *Nihon Shimyureshon Gakkai Taikai Happyo Ronbunshu*, 24:225–228, 2005. http://sciencelinks.jp/j-east/article/200618/000020061806A0555492.php.

[567] K. Ozaki, T. Ogita, S. Oishi, and S.M. Rump. Generalization of Error-Free Transformation for Matrix Multiplication and its Application. *Nonlinear Theory and its Applications*, 4(1):2–11, 2013.

[568] S.M. Rump. Error estimation of floating-point summation and dot product. *BIT*, 52(1):201–220, 2012.

[569] S.M. Rump. Fast Interval Matrix Multiplication. *Numerical Algorithms*, 61(1):1–34, 2012.

[570] S.M. Rump. Interval Arithmetic Over Finitely Many Endpoints. *BIT Numerical Mathematics*, 52(4):1059–1075, 2012.

[571] S.M. Rump. Verified Bounds for Least Squares Problems and Underdetermined Linear Systems. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 33(1):130–148, 2012.

[572] S.M. Rump. Accurate solution of dense linear systems, Part I: Algorithms in rounding to nearest. *Journal of Computational and Applied Mathematics (JCAM)*, 242:157–184, 2013.

[573] S.M. Rump. Accurate solution of dense linear systems, Part II: Algorithms using directed rounding. *Journal of Computational and Applied Mathematics (JCAM)*, 242:185–212, 2013.

[574] S.M. Rump. Improved componentwise verified error bounds for least squares problems and underdetermined linear systems. 66:309–322, 2013.

[575] S.M. Rump. Computable Error Bounds for Basic Algorithms in Linear Algebra. submitted for publication, 2014.

[576] S.M. Rump. The componentwise structured and unstructured backward error can be arbitrarily far apart. submitted for publication, 2014.

[577] S.M. Rump. Verified bounds for the p-norm condition number. Reliable Computing, Vol. 20, pp. 45-52, 2014.

[578] S.M. Rump. Verified sharp bounds for the real gamma function over the entire floating-point range. Nonlinear Theory and Its Applications (NOLTA), IEICE, Vol.E5-N,No.3, July, 2014.

[579] S.M. Rump. Gleitkommaarithmetik auf dem Prüfstand [Wie werden verifiziert(e) numerische Lösungen berechnet?]. *Jahresbericht der Deutschen Mathematiker-Vereinigung*, 118(3):179–226, 2016.

[580] S.M. Rump. IEEE754 precision-k base-β arithmetic inherited by precision-m base-β arithmetic for $k < m$. *ACM Trans. Math. Software*, 43(3), 2017.

[581] S.M. Rump. The determinant of a perturbed identity matrix. *Linear Algebra and its Applications (LAA)*, 558:101–107, 2018.

[582] S.M. Rump. Bounds for the determinant by Gershgorin circles. *Linear Algebra and its Applications (LAA)*, 563:215–219, 2019.

[583] S.M. Rump. Verified bounds for the determinant of real or complex point or interval matrices. *Journal of Computational and Applied Mathematics (JCAM)*, to appear, 2019.

[584] S.M. Rump. On recurrences converging to the wrong limit in finite precision and some new examples. *Electronic Transactions on Numerical Analysis (ETNA)*, 52:358–369, 2020.

[585] S.M. Rump. Computational error bounds for multiple or nearly multiple eigenvalues. *SIAM J. Matrix Anal. Appl. SIMAX*, 43(4):1736–1754, 2022.

[586] S.M. Rump. IEEE-754 precision-p base-β arithmetic implemented in binary. *ACM Trans. Math. Software*, to appear.

[587] S.M. Rump and P. Batra. Addendum to the determinant of a perturbed identity matrix. *Linear Algebra and its Applications (LAA)*, 565:309–312, 2019.

[588] S.M. Rump, F. Bünger, and C.-P. Jeannerod. Improved Error Bounds for Floating-Point Products and Horner's Scheme. *BIT*, 56(1):293–307, 2015.

[589] S.M. Rump and C.-P. Jeannerod. Improved backward error bounds for LU and Cholesky factorizations. *SIAM J. Matrix Anal. Appl. (SIMAX)*, 35(2):684–698, 2014.

[590] S.M. Rump and M. Lange. On the Definition of Unit Roundoff. *BIT*, 56(1):309–317, 2015.

[591] S.M. Rump and M. Lange. Fast computation of error bounds for all eigenpairs of a Hermitian and all singular pairs of a rectangular matrix with emphasis on eigen- and singular value clusters. *Journal of Computational and Applied Mathematics (JCAM)*, 434, 2023.

[592] S.M. Rump, T. Ogita, and S. Oishi. Fast high precision summation. *Nonlinear Theory and Its Applications (NOLTA), IEICE*, 1(1), 2010. [received the NOLTA Best Paper Award by the IEICE Engineering Sciences Society].

[593] T. Sakurai and H. Sugiura. Improvement of convergence of an iterative method for finding polynomial factors of analytic functions. *J. Comput. Appl. Math. (JCAM)*, 140(1–2):713–725, 2002. `http://dx.doi.org/10.1016/S0377-0427(01)00524-6`.

[594] N.R. Salim, M. Monsi, M.A. Hassan, and W.J. Leong. On the Convergence Rate of Symmetric Single-Step Method ISS for Simultaneous Bounding Polynomial Zeros. *Applied Mathematical Sciences*, 5(75):3731–3741, 2011. `http://www.m-hikari.com/ams/ams-2011/ams-73-76-2011/salimAMS73-76-2011.pdf`.

[595] A.V. Santos, G.P. Dimuro, L.V. Barboza, A.C.R Costa, R.H.S. Reiser, and M.A. Campos. Probabilidades Intervalares em Modelos Ocultos de Markov. *TEMA Tend. Mat. Apl. Comput.*, 7(2):361–370, 2006. `http://www.sbmac.org.br/tema/seletas/docs/v7_2/20-santos.pdf`.

[596] A.T. Sarić and A.M. Stanković. An Application of Interval Analysis and Optimization to Electric Energy Markets. *IEEE Trans. Power Systems*, 21(2):515–523, 2006. `http://ieeexplore.ieee.org/iel5/59/34141/01626354.pdf`.

[597] E. Sarrouy and F. Thouvereza. Global search of non-linear systems periodic solutions: A rotordynamics application. Mechanical Systems and Signal Processing, Article in Press, Corrected Proof. doi:10.1016/j.ymssp.2010.02.001.

[598] G. Sartorelli. Edgeworth Expansion for the Computation of Plain Vanilla Prices in the Heston Model, 2010. `http://ssrn.com/abstract=1614703`.

[599] U. Schäfer. A Linear Complementarity Problem with a P-Matrix. *SIAM Review (SIREV)*, 46(2):189–201, 2004. `http://link.aip.org/link/?SIR/46/189/1`.

[600] U. Schäfer. *Das lineare Komplementaritätsproblem: eine Einf"uhrung*. Springer, 2008. `http://www.springer.com/mathematics/book/978-3-540-79734-0`.

[601] U. Schäfer. *From Sperner's Lemma to Differential Equations in Banach Spaces : An Introduction to Fixed Point Theorems and their Applications Cover*. KIT Scientific Publishing, 2014. `https://books.google.de/books?hl=de&lr=&id=1B2yBQAAQBAJ&oi=fnd&pg=PA1&ots=Y3ImEL49Dy&sig=w6E9SWbB9E2po4OkL-uhuckOHwU#v=onepage&q&f=false`.

[602] H. Schichl. *Mathematical Modeling and Global Optimization*. Cambridge University Press, 2007. Habilitationsschrift (2003), `http://www.mat.univie.ac.at/~herman/papers/habil.pdf`.

[603] H. Schichl, F. Domes, T. Montanher, and K. Kofler. Interval unions. *BIT Numerical Mathematics*, 57(2):531–556, 2017. `https://doi.org/10.1007/s10543-016-0632-y`.

[604] H. Schichl, M.C. Márkót, and A. Neumaier. Exclusion regions for optimization problems, 2011. `http://radon.mat.univie.ac.at/~herman/papers/exclopt.pdf`.

[605] H. Schichl and A. Neumaier. Exclusion Regions for Systems of Equations. *SIAM J. Numer. Anal. (SINUM)*, 42:383–408, 2004. `http://link.aip.org/link/?SNA/42/383/1`.

[606] M. Shanmugavalli, G. Uma, B. Vasuki, and M. Umapathy. Design and Simulation of MEMS Devices using Interval Analysis. *Journal of Physics*, 34:601–605, 2006. International MEMS Conference 2006, DOI: 10.1088/1742-6596/34/1/099.

[607] X. Shao, Q. Wang, P.C.Y. Chen, Z. Zhu, and B. Zi. Forward Kinematics Analysis and Tension Distribution of a Cable-Driven Sinking Winches Mechanism. *CoRR*, abs/1011.2269, 2010. `http://arxiv.org/abs/1011.2269`.

[608] I.A. Sharaya. Boundary intervals method for visualization of polyhedral solution sets. *Reliable Computing*, 19(1):435–467, 2015.

[609] S.-P. Shary. A comparison between the Apostolatos-Kulisch theorem and the Mayer-Warnke theorem in interval analysis. *Numerical Analysis and Applications*, 2(3):281–287, 2009. DOI 10.1134/S1995423909030094, `http://www.springerlink.com/content/q923686761u844v8/`.

[610] M. Shibayama and K. Yagasaki. Heteroclinic connections between triple collisions and relative periodic orbits in the isosceles three-body problem. *Nonlinearity*, 22(10):2377–2403, 2009. doi: 10.1088/0951-7715/22/10/004, `http://iopscience.iop.org/0951-7715/22/10/004?ejredirect=migration`.

[611] S. Singh and G. Panda. SVD Enclosure of a Class of Interval Matrices. *Information Sciences*, 2024. `DOI:10.1016/j.ins.2024.120386`.

[612] A. Smajic. Optimale Box-Einschließungen von NURBS Kurven. Master's thesis, Universität Wien, Fakultät für Mathematik, 2009. `http://othes.univie.ac.at/6783/1/2009-10-05_0300959.pdf`.

[613] M. Sofroniou and G. Spaletta. Precise numerical computation. *J. Log. Algebr. Program.*, 64(1):113–134, 2005. `www-sop.inria.fr/lemme/AOC/workshop/mark_sofroniou.ps.gz`.

[614] A.J. Sommese and C.W. Wampler. *The Numerical Solution of Systems of Polynomials Arising in Engineering and Science*. World Scientific Publishing Co. Pte. Ltd., 2005. `http://books.google.com/books?hl=en&lr=&id=S6fIrWaFNOsC&oi=fnd&pg=PR7&ots=iLWjJPk3j_&sig=4PR6XotBvnfGYi9TqNFa2jdvZOk#v=onepage&q&f=false`.

[615] D. Stoffer and K.J. Palmer. Rigorous verification of chaotic behaviour of maps using validated shadowing. *Nonlinearity*, 12:1683–1698, 1999. `www.iop.org/EJ/article/0951-7715/12/6/316/no9616.ps.gz`.

[616] U. Storck, R. Lohner, and U. Schnabel. An Algorithm for Inclusion of Multiple and Clusters of Eigenvalues. Technical Report 01/22, Universität Karlsruhe, Fakultät für Mathematik, 2001. `http://www.uni-karlsruhe.de/~Rudolf.Lohner/papers/mult_eigen.ps`.

[617] D.R. Stoutemyer. Useful Computations Need Useful Numbers. *ACM Communications in Computer Algebra*, 41(3):75–99, 2007. `http://sigsam.org/bulletin/articles/161/stoutemyer.pdf`.

[618] T. Strek. Introduction to Validated Computing: Verified Computations with Taylor Model Using Symbolic Algebra. `http://www.put.poznan.pl/~tstrek/text/vercal.pdf`.

[619] M.D. Stuber and P.I. Barton. Robust Simulation and Design Using Parametric Interval Methods. In M. Beer, R.L. Muhanna, and R.L. Mullen, editors, *4th International Workshop on Reliable Engineering Computing (REC 2010)*, pages 536–553, 2010. `http://www.eng.nus.edu.sg/civil/REC2010/documents/papers/003.pdf`.

[620] M.D. Stuber and P.I. Barton. Parametric Interval Newton Methods. `http://aiche.confex.com/aiche/2009/webprogrampreliminary/Paper151631.html`, 2011.

[621] M.D. Stuber and P.I. Barton. Robust simulation and design using semi-infinite programs with implicit functions. *International Journal of Reliability and Safety*, 5(3–4):378–397, 2011. DOI 10.1504/IJRS.2011.041186, `http://inderscience.metapress.com/content/e5w61h6j03535q52/`.

[622] S. Summers, D.M. Raimondo, C.N. Jones, J. Lygeros, and M. Morari. Fast explicit nonlinear model predictive control via multiresolution function approximation with guaranteed stability. In *8th IFAC Symposium on Nonlinear Control Systems (NOLCOS 2010)*, 2010. `http://control.ee.ethz.ch/index.cgi?page=publications;action=details;id=3557`.

[623] J. Sun, E. M. Bollt, and T. Nishikawa. Judging Model Reduction of Chaotic Systems via Optimal Shadowing Criteria. arXiv:1003.0254v1, 2010. `http://arxiv.org/PS_cache/arxiv/pdf/1003/1003.0254v1.pdf`.

[624] C. Surace and K. Worden. Extended Analysis of a Damage Prognosis Approach Based on Interval Arithmetic. *Strain*, 47(6):544–554, 2011. `http://onlinelibrary.wiley.com/doi/10.1111/j.1475-1305.2011.00815.x/full`.

[625] T. Suzuki and T. Suzuki. An eigenvalue problem for derogatory matrices. In *Special Issue on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 2004)*, volume 199 of *Journal of Computational and Applied Mathematics (JCAM)*, pages 245–250, 2007. `http://dx.doi.org/10.1016/j.cam.2005.08.044`.

[626] R. Swiatlak, B. Tibken, T. Paradowski, and R. Dehnert. An interval arithmetic approach for the estimation of the robust domain of attraction for nonlinear autonomous systems with nonlinear uncertainties. In *American Control Conference (ACC), 2015*, pages 2679–2684, 2015.

[627] C. E. Syrseloudis, I. Z. Emiris, C. N. Maganaris, and T. E. Lilas. Design framework for a simple robotic ankle evaluation and rehabilitation device. In *Proc. IEEE Eng. Med. Biol. Soc.*, 2008. `http://cgi.di.uoa.gr/~chsirsel/Paper_EMBC08.pdf`.

[628] Sakurai T. and Sugiura H. On factorization of analytic functions and its verification. *Reliable Computing*, 6, 2000. `http://www.is.tsukuba.ac.jp/~sakurai/ISETR-99-162.pdf`.

[629] A. Takayasu, M. Mizuguchi, T. Kubo, and S. Oishi. Accurate method of verified computing for solutions of semilinear heat equations. *Reliable Computing*, 25:74–99, 2017. `https://arxiv.org/abs/1611.10243`.

[630] A. Takayasu and S. Oishi. A method of computer assisted proof for nonlinear two-point boundary value problems using higher order finite elements. *Nonlinear Theory and Its Applications (IEICE)*, 2(1):74–89, 2011. `http://www.jstage.jst.go.jp/article/nolta/2/1/2_74/_article`.

[631] A. Takayasu, S. Oishi, and T. Kubo. Numerical existence theorem for solutions of two-point boundary value problems of nonlinear differential equations. *Nonlinear Theory and Its Applications (IEICE)*, 1(1):105–118, 2010. `http://www.jstage.jst.go.jp/article/nolta/1/1/1_105/_article`.

[632] K. Tanaka, M. Plum, K. Sekine, M. Kashiwagi, and S. Oishi. Verified numerical computation for semilinear elliptic problems with lack of Lipschitz continuity of the first derivative. *ArXiv e-prints*, 2016. `http://adsabs.harvard.edu/abs/2016arXiv160704619T`.

[633] K. Tanaka, K. Sekine, M. Mizuguchi, and S. Oishi. Estimation of the Sobolev embedding constant on domains with minimally smooth boundary. eprint arXiv:1411.6116, Bibliographic Code: 014arXiv1411.6116T, 2014.

[634] K. Tanaka, K. Sekine, M. Mizuguchi, and S. Oishi. Numerical method for deriving sharp inclusion of the Sobolev embedding constant on bounded convex domain. Available from `http://arxiv.org/abs/1503.05468`, 2015.

[635] K. Tanaka, K. Sekine, and S. Oishi. Numerical verification method for positiveness of solutions to elliptic equations. *ArXiv e-prints*, 2016. `http://adsabs.harvard.edu/abs/2016arXiv160603818T`.

[636] B. Telle, M.-J. Aldon, and N. Ramdani. Camera Calibration and 3D Reconstruction Using Interval Analysis. In *12th International Conference on Image Analysis and Processing (ICIAP'03)*, page 374, 2003. `http://doi.ieeecomputersociety.org/10.1109/ICIAP.2003.1234078`.

[637] B. Telle, M.-J. Aldon, and N. Ramdani. Guaranteed 3D Visual Sensing Based on Interval Analysis. In *Intl. Conference on Intelligent Robots and Systems (IEEURS 2003)*, 2003. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1248867`.

[638] G. Terejanu, P. Singla, T. Singh, and P.D. Scott. Approximate interval method for epistemic uncertainty propagation using Polynomial Chaos and evidence theory. In *American Control Conference (ACC), 2010*, pages 349–354, 2010. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5530816&tag=1`.

[639] G.A. Terejanu. *Towards a Decision-Centric Framework for Uncertainty Propagation and Data Assimilation*. PhD thesis, Department of Computer Science and Engineering, Faculty of the Graduate School of the State University of New York at Buffalo, 2010. `http://users.ices.utexas.edu/~terejanu/files/DissertationTerejanu.pdf`.

[640] F. Thomas, J.M. Porta, and L. Ros. Distance Constraints Solved Geometrically. In *in Advances in Robot Kinematics*, pages 123–132. Kluwer Academic Publishers, 2004. `http://www-iri.upc.es/people/thomas/papers/ARK2004b.pdf`.

[641] B. Thompson and R.M. Buehrer. Cooperative Indoor Position Location Using Reflected Estimations. In *11th European Wireless Conference 2011 — Sustainable Wireless Technologies (European Wireless)*, pages 1–6, 2011. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5898080&tag=1`.

[642] B.K. Thompson. Characterizing and Improving the Non-Collaborative and Collaborative Localization Problems. Master's thesis, Virginia Polytechnic Institute and State University, 2011. `http://scholar.lib.vt.edu/theses/available/etd-09062011-100105/unrestricted/Thompson_BK_T_2011.pdf`.

[643] A. Tiano, A. Zirilli, and F. Pizzocchero. Application of interval and fuzzy techniques to integrated navigation systems. In *IFSA World Congress and 20th NAFIPS International Conference, 2001. Joint 9th*, volume 1, pages 13–18, 2001. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=944219&tag=1`.

[644] S. Tornil-Sin, V. Puig, and T. Escobet. Set computations with subpavings in MATLAB: The SCS Toolbox. In *Computer-Aided Control System Design (CACSD), 2010 IEEE International Symposium on*, pages 1403–1408, 2010. doi:10.1109/CACSD.2010.5612690, `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5612690&tag=1`.

[645] K. Toyonaga. A method for separating nearly multiple eigenvalues for Hermitian matrix. *J. Comput. Appl. Math. (JCAM)*, 199(2):432–436, 2002. Special Issue on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 2004), `http://dx.doi.org/10.1016/j.cam.2005.08.040`.

[646] K. Toyonaga. Numerical enclosure for multiple eigenvalues of an Hermitian matrix whose graph is a tree. *Linear Algebra and its Applications (LAA)*, 431(11):1989–1999, 2009. doi:10.1016/j.laa.2009.06.038.

[647] K. Toyonaga and C.R. Johnson. Application of an identity for subtrees with a given eigenvalue. *ELA*, 30(1):964–973, 2016.

[648] K. Toyonaga, M.T. Nakao, and Y. Watanabe. Verified numerical computations for multiple and nearly multiple eigenvalues of elliptic operators. *J. Comput. Appl. Math. (JCAM)*, 147(1):175–190, 2002. `http://dx.doi.org/10.1016/S0377-0427(02)00431-4`.

[649] W. Tucker. Validated Numerics for Pedestrians. In *Proceedings from ECM'05*, pages 851–860, 2005. `http://www.math.uu.se/~warwick/main/papers/ECM04Tucker.pdf`.

[650] A. Tulsyan and P.I. Barton. Interval enclosures for reachable sets of chemical kinetic flow systems. Part 2: Direct-bounding method. *Chemical Engineering Science*, 166:345–357, 2017. `http://www.sciencedirect.com/science/article/pii/S0009250916306741`.

[651] J. Tung. Interval Analysis and its Applications to Optimization in Behavioural Ecology. CS 490 Independent Research Report, `http://www.cs.cornell.edu/boom/2002sp/extproj/www.people.cornell.edu/pages/jt96/research/ia/cs490report.doc`, 2001.

[652] T. Unemi, Y. Matsui, and D. Bisig. Identity SA 1.6: an artistic software that produces a deformed audiovisual reflection based on a visually interactive swarm. In *Proceedings of the 2008 International Conference on Advances in Computer Entertainment Technology, Yokohama, Japan*, volume 352 of *ACM International Conference Proceeding Series*, pages 297–300, 2008. `http://portal.acm.org/citation.cfm?id=1501821`.

[653] S. E. Uwamusi. Verified bounds for nonlinear systems via Hansen-Sengupta method. *International Journal of Physical Sciences*, 4(10):571–575, 2009. `http://www.academicjournals.org/ijps/PDF/pdf2009/October/Uwamusi.pdf`.

[654] S.E. Uwamusi. Towards acceleration of Rump's fast and parallel circular interval arithmetic for enclosing solution of non linear system of equations. *Scientific Research and Essay*, 2(11):476–481, 2007.

[655] J. B. van den Berg and J.-P. Lessard. Chaotic braided solutions via rigorous numerics: chaos in the Swift-Hohenberg equation. *SIAM J. Appl. Dyn. Syst.*, 7(3):988–1031, 2008. `http://www.math.vu.nl/~janbouwe/pub/chaos.pdf`.

[656] J.B. van den Berg, M. Breden, J.-P. Lessard, and M. Murray. Continuation of homoclinic orbits in the suspension bridge equation: A computer-assisted proof. *Journal of Differential Equations*, 264(5):3086–3130, 2018. `http://www.sciencedirect.com/science/article/pii/S0022039617306010`.

[657] J.B. van den Berg, A. Deschênes, J.-P. Lessard, and J.D. Mireles James. Stationary Coexistence of Hexagons and Rolls via Rigorous Computations. *SIAM Journal on Applied Dynamical Systems*, 14(2):942–979, 2015. `http://dx.doi.org/10.1137/140984506`.

[658] J.B. van den Berg, C.M. Groothedde, and J.F. Williams. Rigorous Computation of a Radially Symmetric Localized Solution in a Ginzburg—Landau Problem. *SIAM Journal on Applied Dynamical Systems*, 14(1):423–447, 2015. `http://dx.doi.org/10.1137/140987973`.

[659] J.B. van den Berg, J.D. Mireles-James, J.-P. Lessard, and K. Mischaikow. Rigorous numerics for symmetric connecting orbits: even homoclinics of the Gray-Scott equation. `http://www.math.vu.nl/~janbouwe/pub/CO_version12a.pdf`, 2010.

[660] L. van den Hoeven. Ball Arithmetic, 2009. `http://hal.archives-ouvertes.fr/hal-00432152/en/`.

[661] J. Van Der Hoeven. Certifying trajectories of dynamical systems. 2015. <hal-01188378>, HAL Id: hal-01188378 `https://hal.archives-ouvertes.fr/hal-01188378`, 2015.

[662] J. van der Hoeven and B. Mourrain. Efficient Certification of Numeric Solutions to Eigenproblems. In J. Blömer, I.S. Kotsireas, T. Kutsia, and D.E. Simos, editors, *Mathematical Aspects of Computer and Information Sciences*, pages 81–94. Springer International Publishing, Cham, 2017. `https://link.springer.com/chapter/10.1007/978-3-319-72453-9_6`.

[663] M.H. van Emden, B. Moa, and S.C. Somosan. Conversion Between Binary and Decimal Numerals with Direct Rounding. 12th GAMM - IMACS International Symposion on Scientific Computing, Computer Arithmetic and Validated Numerics, Duisburg, 26 - 29 September 2006, `http://scan2006.uni-due.de/abstracts/emden.pdf`.

[664] M.H. van Emden, B. Moa, and S.C. Somosan. Functions to Support Input and Output of Intervals, 2007. `http://arxiv.org/PS_cache/cs/pdf/0703/0703003v1.pdf`.

[665] E. van Kampen, C.P. Chu, and J.A. Mulder. Interval Analysis as a System Identification Tool. In F. Holzapfel and S. Theil, editors, *Advances in Aerospace Guidance, Navigation and Control, Selected Papers of the 1st CEAS Specialist Conference on Guidance, Navigation and Control*, pages 333–343, 2011. `http://www.springerlink.com/content/k8j1t000743g88lr/`.

[666] A. Vehreschild. *Automatisches Differenzieren für MATLAB*. PhD thesis, RWTH Aachen University, 2009. `http://darwin.bth.rwth-aachen.de/opus3/volltexte/2009/2680/pdf/Vehreschild_Andre.pdf`.

[667] T. Vejchodský. Higher-order discrete maximum principle for 1D diffusions-reaction problems. Applied Numerical Mathematics, Article in Press, Corrected Proof, 2009. doi:10.1016/j.apnum.2009.10.009.

[668] B. Verdonk, J. Vervloet, and A. Cuyt. Blending Set and Interval Arithmetic for Maximal Reliability. *Computing*, 74(1):41–65, 2004. `http://www.springerlink.com/content/6107twp6x8lg5rdu/fulltext.pdf`.

[669] O.A. Vivas. *Contribution á l'identification et á la commande des robots paralléles*. PhD thesis, Université Montpellier II, Science et Techniques du Languedoc, 2004. `http://papyrus.lirmm.fr/GEIDEFile/=.PDF?Archive=191348091952&File==_PDF`.

[670] J. Wan. *Computationally Reliable Approaches of Contractive MPC for Discrete-Time Systems*. PhD thesis, Department of Electronics, Computer Science and Automation Control, Universitat de Girona, 2007. `http://www.tesisenxarxa.net/TESIS_UdG/AVAILABLE/TDX-1008107-141828//tjw.pdf`.

[671] J. Wan, J. Vehi, and N. Luo. A numerical approach to design control invariant sets for constrained nonlinear discrete-time systems with guaranteed optimality. *Journal of Global Optimization*, 44(3):395–407, 2009. DOI 10.1007/s10898-008-9334-6, `http://www.springerlink.com/content/22023w1625675101/`.

[672] A. Wang, H. Wang, and Y. Deng. Interval algorithm for absolute value equations. *Central European Journal of Mathematics*, 9(5):1171–1184, 2011. DOI: 10.2478/s11533-011-0067-2, `http://www.springerlink.com/content/106w587k3j10023p/`.

[673] Y. Wang. Algebraic Interval Constraint Driven Exploration in Human-Agent Collaborative Problem Solving. In *Proceedings of The 7th IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA2007), June 20-23, 2007, Jacksonville, Florida*, 2007.

[674] Z. Wang. Extensions of the newton-kantorovich theorem to variational inequality problems. An extension of PhD thesis. `http://math.nju.edu.cn/~zywang/paper/Kantorovich_VIP.pdf`.

[675] Z. Wang. Validation and enclosure of solutions of linear complementarity problems. *Computing*, 79(1):61–77, 2007. `http://www.springerlink.com/content/6n33w34165241263/fulltext.pdf`.

[676] Z. Wang. Components identification based method for box constrained variational inequality problems with almost linear functions. *BIT Numerical Mathematics*, 48(4):799–819, 2008. DOI 10.1007/s10543-008-0202-z `http://www.springerlink.com/content/l46435261r430574/`.

[677] Z. Wang. Extensions of Kantorovich theorem to complementarity problem. *ZAMM - Journal of Applied Mathematics and Mechanics*, 88(3):179–190, 2008. `http://onlinelibrary.wiley.com/doi/10.1002/zamm.200700072/abstract`.

[678] Z. Wang. Numerical Validation of Solutions of Variational Inequalities via Poincaré-Miranda Theorem: Theory, 2009. http://math.nju.edu.cn/ zywang/paper/MirandaVip.pdf.

[679] T. Wanner. Computer-assisted equilibrium validation for the diblock copolymer model. *Discrete & Continuous Dynamical Systems - A*, 37(2):1075–1107, 2017. `http://aimsciences.org//article/id/c5f67c6a-cc6c-48bd-890f-894fff69651e`.

[680] S. Warthenpfuhl, B. Tibken, and S. Mayer. An interval arithmetic approach for the estimation of the domain of attraction. In *2010 IEEE International Symposium on Computer-Aided Control System Design (CACSD)*, pages 1999–2004, Yokohama, 2010. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5612692&tag=1`.

[681] Y. Watanabe, T. Kinoshita, and M.T. Nakao. A posteriori estimates of inverse operators for boundary value problems in linear elliptic partial differential equations. Technical Report RIMS-1722, Research institute for mathematical science, Kyoto University, 2011. `http://www.kurims.kyoto-u.ac.jp/preprint/file/RIMS1722.pdf`.

[682] Y. Watanabe and T. Miyaji. Another computer-assisted proof of unimodality of solutions for Proudman–Johnson equation. Japan Journal of Industrial and Applied Mathematics, 2024. `DOI: 10.1007/s13160-023-00639-x`.

[683] M.J. Weinstein and A.V. Rao. Algorithm 984: Adigator, a toolbox for the algorithmic differentiation of mathematical functions in matlab using source transformation via operator overloading. *ACM Trans. Math. Softw.*, 44(2):21:1–21:25, 2017. `http://doi.acm.org/10.1145/3104990`.

[684] K. Worden and G. Manson. Prognosis under uncertainty — An idealised computational case study. *Shock and Vibration*, 15(3–4):231–243, 2008. `http://iospress.metapress.com/content/5417766n22761jm3/`.

[685] N. Xiao, F. Fedele, and R. Muhanna. Interval Finite Element Approach for Modal Analysis of Linear Elastic Structures Under Uncertainty. In S. Atamturktur et al., editor, *Model Validation and Uncertainty Quantification*, volume 3, pages 143–150. Springer International Publishing, Cham, 2016. `https://link.springer.com/chapter/10.1007/978-3-319-29754-5_13`.

[686] N. Xiao, R. Muhanna, F. Fedele, and R. Mullen. Interval Finite Element Analysis of Structural Dynamic Problems. *SAE Int. J. Mater. Manf.*, 8(2):382–389, 2015. doi:10.4271/2015-01-0484.

[687] N. Xiao, R. Muhanna, F. Fedele, and R. Mullen. Uncertainty Analysis of Static Plane Problems by Intervals. *SAE Int. J. Mater. Manf.*, 8(2):374–381, 2015. doi:10.4271/2015-01-0482.

[688] N. Xiao, R. Muhanna, F. Fedele, and R. Mullen. A reinforcement learning-based multi-objective optimization in an interval and dynamic environment. *Knowledge-Based Systems*, 280(2):111019, 2023. doi:10.4271/2015-01-0482.

[689] N. Yamamoto and K. Genma. On error estimation of finite element approximations to the elliptic equations in nonconvex polygonal domains. *J. Comput. Appl. Math. (JCAM)*, 199(2):286–296, 2007. `http://dx.doi.org/10.1016/j.cam.2005.08.041`.

[690] N. Yamamoto and K. Hayakawa. Error estimation with guaranteed accuracy of finite element method in nonconvex polygonal domains. *J. Comput. Appl. Math. (JCAM)*, 159(1):173–183, 2003. `http://dx.doi.org/10.1016/S0377-0427(03)00569-7`.

[691] N. Yamamoto and T. Komori. An Application of Taylor Models to the Nakao Method on ODEs. *Japan J. Indust. Appl. Math.*, 26(2):365–392, 2009. `http://projecteuclid.org/DPubS?verb=Display&version=1.0&service=UI&handle=euclid.jjiam/1265033787&page=record`.

[692] N. Yamanaka, T. Ogita, S.M. Rump, and S. Oishi. A Parallel Algorithm for Accurate Dot Product. *Parallel Computing*, 34(6–8):392–410, 2008. `http://www.ti3.tu-harburg.de`.

[693] C. Yan, M. Greenstreet, and J. Eisinger. Formal Verification of an Arbiter Circuit. In *2010 IEEE Symposium on Asynchronous Circuits and Systems (async)*, pages 165–175, 2010. `http://www.computer.org/portal/web/csdl/doi/10.1109/ASYNC.2010.25`.

[694] Y. Yanagisawa, T. Ogita, and S. Oishi. Convergence analysis of an algorithm for accurate inverse Cholesky factorization. *Japan Journal of Industrial and Applied Mathematics*, 31(3):461–482, 2014. `http://dx.doi.org/10.1007/s13160-014-0154-4`.

[695] W.-F. Yang and F.-L. Zeng. Parameter Estimation of the AR Model Based on Interval Analysis. In *Proceedings of the 2008 International Symposium on Intelligent Information Technology Application Workshops*, pages 990–993. IEEE Computer Society Washington, DC, USA, 2008. `http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=04732103`.

[696] Y. W. Yang, N. F. Wang, and K. Tai. Hybrid genetic algorithm for designing structures subjected to uncertainty. In *Proceedings of the 2008 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2008)*, 2008. `http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=04811337`.

[697] S. Zaiser, M. Buchholz, and K. Dietmayer. Black-box Modeling with Uncertain Parameters from Measurement Data with Unknown, but Bounded Errors. *Automatisierungstechnik*, 62(9):607–618, 2014. doi:10.1515/auto-2014-1084.

[698] S. Zaiser, M. Buchholz, and K. Dietmayer. Interval system identification for MIMO ARX models of minimal order. In *Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on*, pages 1774–1779, 2014. doi=10.1109/CDC.2014.7039655.

[699] S. Zaiser, M. Buchholz, and K. Dietmayer. MIMO order and state-space model identification from interval data. In *Control Applications (CCA), 2014 IEEE Conference on*, pages 134–139, 2014. doi=10.1109/CCA.2014.6981341.

[700] V. Zambianchi, M. Kieffer, G. Pasolini, F. Bassi, and D. Dardari. Efficient Distributed Non-Asymptotic Confidence Regions Computation over Wireless Sensor Networks. *CoRR*, abs/1409.8585, 2014. `http://arxiv.org/abs/1409.8585`.

[701] J. Zemke. b4m - BIAS for Matlab. Technical report, Inst. f. Informatik III, Technische Universität Hamburg-Harburg, 1998. `http://www.ti3.tu-harburg.de/zemke/b4m/b4m.ps`.

[702] J. Zemke. *Krylov Subspace Methods in Finite Precision: A Unified Approach*. PhD thesis, Inst. f. Informatik III, Technische Universität Hamburg-Harburg, 2003. `http://deposit.ddb.de/cgi-bin/dokserv?idn=975788256&dok_var=d1&dok_ext=pdf&filename=975788256.pdf`.

[703] Y. Zeng and P. Zhang and D. Lu and M. Yu. On Searching All Solutions of Filter Topologies Based on Interval Arithmetic. IEEE Transactions on Microwave Theory and Techniques (99):1–11, `DOI: 10.1109/TMTT.2023.3308201`.

[704] R. Zerrougui and A.B.H. Adamou-Mitiche and L. Mitiche. Interval Arithmetic for Advanced Control Approaches Conference: the 1st International Conference on Electronics Engineering and Telecommunications, 2023.

[705] H. Zhang. *Nondeterministic Linear Static Finite Element Analysis: An Interval Approach*. PhD thesis, School of Civil and Environmental Engineering, Georgia Institute of Technology, 2005. `http://www.gtsav.gatech.edu/rec/resources/zhang.pdf`.

[706] P. Zhang and W. Li. Boundary Analysis of Distribution Reliability and Economic Assessment. *Power Systems, IEEE Transactions on*, 25(2):714 –721, 2010.

[707] X. Zhang, J. Cai, and Y. Wei. Interval iterative methods for computing Moore-Penrose inverse. *Applied Mathematics and Computation*, 183(1):522–532, 2007. `http://dx.doi.org/10.1016/j.amc.2006.05.098`.

[708] X. Zhang and Y. Wei and M. Huo and H. Li. Robust Interval State Estimation for Distribution Systems Considering Pseudo-measurement Interval Prediction. Journal of Modern Power Systems and Clean Energy, 12(1):179-188. `DOI:10.35833/MPCE.2023.000102`.

[709] H. Zhao and H. Chiang. Flexible Optimal Power Flow: Approach and Implementation. appears in: Power and Energy Society General Meeting - Conversion and Delivery of Electrical Energy in the 21st Century, 2008 IEEE, 2008. `http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=4596490&tag=1`.

[710] Y. Zhao. Some Highly Accurate Basic Lienar Algebra Subroutines. Master's thesis, McMaster University, 2010. Open Access Dissertations and Theses. Paper 4398. `http://digitalcommons.mcmaster.ca/opendissertations/4398`.

[711] M. Zimmer, W. Krämer, G. Bohlender, and W. Hofschuster. Extension of the C-XSC Library with Scalar Products with Selectable Accuracy. Technical Report BUW-WRSWT 2009/4, Bergische Universität Wuppertal, Wissenschaftliches Rechnen/Softwaretechnologie, 2009. `http://www2.math.uni-wuppertal.de/~xsc/preprints/prep_09_4.pdf`.

[712] M. Zimmer, W. Krämer, and W. Hofschuster. Sparse Matrices and Vectors in C-XSC. *Reliable Computing*, 14:138–160, 2011. `http://interval.louisiana.edu/reliable-computing-journal/volume-14/reliable-computing-14-pp-138-160.pdf`.

- http://dspace.wul.waseda.ac.jp/dspace/bitstream/2065/758/1/3603u145.pdf

16

Newton-Cotes

17　2　2

3603U145-2

- www.kashi.info.waseda.ac.jp/~yuichit/PDF/1g02p026.pdf

平成17年度卒業論文

Affine Arithmeticにおける三角関数の近似

Approximation of Trigonometric Function in Affine Arithmetic

平成18年2月3日

指導教授　　柏木雅英　　助教授

早稲田大学理工学部情報学科

1G02P026-5　　柏木 啓一郎

54

定常 Stokes 方程式の有限要素解の
事後誤差評価と事前誤差評価

明治大学大学院
理工学研究科 基礎理工学専攻 数学系
福澤 誠人
指導教員 桂田 祐史 助教授

2005 年 2 月 25 日

Strassen のアルゴリズムによる行列乗算の高速精度保証

早稲田大学 教育学部　　荻田 武史 (Takeshi Ogita)
School of Education, Waseda University
早稲田大学 理工学部　　大石 進一 (Shin'ichi Oishi)
School of Science and Engineering, Waseda University
日立製作所 エンタープライズサーバ事業部　　後 保範 (Yasunori Ushiro)
Enterprise Server Division, Hitachi Ltd.

- http://www.ccn.yamanashi.ac.jp/~stomo/pdf/nas2004.pdf

derogatory な行列の固有値問題

An eigenvalue problem for derogatory matrices

鈴木智博 （山梨大学）, 鈴木俊夫 （山梨大学）

- http://www.doe.eng.cmu.ac.th/~sermsak/ee702/lnote3.pdf

บทที่ 3

การวิเคราะห์จุดทำงานกระแสตรง

- http://shop.rcd.ru/fulltext/215/1091

ДОСТОВЕРНЫЕ ВЫЧИСЛЕНИЯ
И ИХ КОМПЬЮТЕРНАЯ РЕАЛИЗАЦИЯ

Предисловие редакторов перевода

Концепция достоверных численных вычислений

- http://yebisu.cc.kyushu-u.ac.jp/~watanabe/LECTURE/INA/04.pdf

情報数値解析
第４回

区間演算