



národní  
úložiště  
šedé  
literatury

**Soupis publikovaných prací pana prof. RNDr. Jiřího Rohna, DrSc. zpracovaný ke dni 19. června 2012 knihovnou Ústavu informatiky AV ČR, v. v. i. k příležitosti 65. narozenin autora a doplněný citačním ohlasem a scientometrickými a statistickými daty**

Nývltová, Ludmila  
2012

Dostupný z <http://www.nusl.cz/ntk/nusl-119181>

Dílo je chráněno podle autorského zákona č. 121/2000 Sb.

Tento dokument byl stažen z Národního úložiště šedé literatury (NUŠL).

Datum stažení: 27.09.2024

Další dokumenty můžete najít prostřednictvím vyhledávacího rozhraní [nusl.cz](http://nusl.cz) .

## Soupis citovaných prací


### 2012

#### Rohn, Jiří

A note on generating P-matrices.

*Optimization Letters*. Roč. 6, č. 3 (2012), s. 601-603. ISSN 1862-4472

Impakt faktor: 1.010, rok: 2010

 [DOI: 10.1007/s11590-010-0273-z](https://doi.org/10.1007/s11590-010-0273-z)

Citováno: 1

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184. [WOS]

### 2011

#### Rohn, Jiří

VERSOFT: Guide.

Prague : ICS AS CR, 2011. 6 s. - (Technical Report, V-1118)

<http://uivtx.cs.cas.cz/~rohn/matlab/>

<http://uivtx.cs.cas.cz/~rohn/matlab/others/index.html>

Citováno: 5

--- FROMMER, A. - HASHEMI, B. Verified error bounds for solutions of Sylvester matrix equations. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 2012, vol. 436, no. 2, SI, p. 405-420. [WOS]

--- MIYAJIMA, S. Fast enclosure for solutions in underdetermined systems. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, OCT 15 2010, vol. 234, no. 12, p. 3436-3444. [WOS]

--- HASHEMI, B. - DEHGHAN, M. EFFICIENT COMPUTATION OF ENCLOSURES FOR THE EXACT SOLVENTS OF A QUADRATIC MATRIX EQUATION. ELECTRONIC JOURNAL OF LINEAR ALGEBRA. ISSN 1537-9582, AUG 2010, vol. 20, p. 519-536. [WOS]

--- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. ACTA NUMERICA 2010, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

--- FROMMER, A. - HASHEMI, B. VERIFIED COMPUTATION OF SQUARE ROOTS OF A MATRIX. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2009, vol. 31, no. 3, p. 1279-1302. [WOS]

### 2010

#### Rohn, Jiří

A Residual Existence Theorem for Linear Equations.

*Optimization Letters*. Roč. 4, č. 2 (2010), s. 287-292. ISSN 1862-4472

Impakt faktor: 1.010, rok: 2010

 [DOI: 10.1007/s11590-009-0160-7](https://doi.org/10.1007/s11590-009-0160-7)

Citováno: 2

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184. [WOS]

--- BARTL, D. Separation theorems for convex polytopes and finitely-generated cones derived from theorems of the alternative. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAY 1 2012, vol. 436, no. 9, p. 3784-3789. [WOS]

## **2009**

**Rohn, Jiří**

An Algorithm for Solving the Absolute Value Equation.

*ELA Electronic Linear Algebra*. Roč. 18, - (2009), s. 589-599. ISSN 1081-3810

Impakt faktor: 0.892, rok: 2009

Citováno: 3

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184. [WOS]

--- YONG, L.Q. Social Cognitive Optimization for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON SYSTEM SCIENCE AND SIMULATION IN ENGINEERING (SSSE 2010). 2010, p. 161-164. [WOS]

--- YONG, L.Q. Differential Evolution Algorithm for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON TELECOMMUNICATION AND INFORMATION (TEIN 2010). 2010, p. 52-55. [WOS]

**Rohn, Jiří**

Description of All Solutions of a Linear Complementarity Problem.

*ELA Electronic Linear Algebra*. Roč. 18, - (2009), s. 246-252. ISSN 1081-3810

Impakt faktor: 0.892, rok: 2009

Citováno: 1

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184. [WOS]

**Rohn, Jiří**

Forty Necessary and Sufficient Conditions for Regularity of Interval Matrices: A survey.

*ELA Electronic Linear Algebra*. Roč. 18, - (2009), s. 500-512. ISSN 1081-3810

Impakt faktor: 0.892, rok: 2009

Citováno: 2

--- PASCA, I. Formally Verified Conditions for Regularity of Interval Matrices. INTELLIGENT COMPUTER MATHEMATICS. ISSN 0302-9743, 2010, vol. 6167, p. 219-233. [WOS]

--- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. ACTA NUMERICA 2010, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

**Rohn, Jiří**

On Unique Solvability of the Absolute Value Equation.

*Optimization Letters*. Roč. 3, č. 4 (2009), s. 603-606. ISSN 1862-4472

Impakt faktor: 0.926, rok: 2009

[DOI: 10.1007/s11590-009-0129-6](https://doi.org/10.1007/s11590-009-0129-6)

Citováno: 2

--- YONG, L.Q. Social Cognitive Optimization for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON SYSTEM SCIENCE AND SIMULATION IN ENGINEERING (SSSE 2010). 2010, p. 161-164. [WOS]

--- YONG, L.Q. Differential Evolution Algorithm for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON TELECOMMUNICATION AND INFORMATION (TEIN 2010). 2010, p. 52-55. [WOS]

**2006**

**Fiedler, Miroslav - Nedoma, Josef - Ramík, J. - Rohn, Jiří - Zimmermann, K.**

Linear Optimization Problems with Inexact Data.

New York : Springer, 2006. 214 s. ISBN 987-0-387-32697-9

<http://www.springer.com/mathematics/book/978-0-387-32697-9>

Citováno: 45

--- HLADIK, M. Solution set characterization of linear interval systems with a specific dependence structure. RELIABLE COMPUTING. ISSN 1385-3139, AUG 2007, vol. 13, no. 4, p. 361-374. [WOS]

--- FAULIN, J. Encyclopaedia of data warehousing and mining. INTERFACES. ISSN 0092-2102, JAN-FEB 2007, vol. 37, no. 1, p. 87-88. [WOS]

--- ZILINSKAS, A. Linear optimization problems with inexact data.. INTERFACES. ISSN 0092-2102, MAY-JUN 2007, vol. 37, no. 3, p. 301-302. [WOS]

--- ZILINSKAS, J. Fuzzy Mathematical Programming and Fuzzy Matrix Games. INTERFACES. ISSN 0092-2102, JUL-AUG 2007, vol. 37, no. 4, p. 388-389. [WOS]

--- UGUR, O. - WEBER, G.W. Optimization and dynamics of gene-environment networks with intervals. JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION. ISSN 1547-5816, MAY 2007, vol. 3, no. 2, p. 357-379. [WOS]

--- HLADIK, M. Generalized linear fractional programming under interval uncertainty. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, AUG 16 2010, vol. 205, no. 1, p. 42-46. [WOS]

--- KUTATELADZE, S.S. The Farkas Lemma revisited. SIBERIAN MATHEMATICAL JOURNAL. ISSN 0037-4466, JAN 2010, vol. 51, no. 1, p. 78-87. [WOS]

--- ASCHEPKOV, L.T. Alternative trading. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, NOV 2009, vol. 70, no. 11, p. 1880-1888. [WOS]

--- HLADIK, M. Optimal value range in interval linear programming. FUZZY OPTIMIZATION AND DECISION MAKING. ISSN 1568-4539, SEP 2009, vol. 8, no. 3, p. 283-294. [WOS]

--- GUO, P. - HUANG, G.H. - HE, L. - LI, H.L. Interval-parameter Fuzzy-stochastic Semi-infinite Mixed-integer Linear Programming for Waste Management under Uncertainty. ENVIRONMENTAL MODELING & ASSESSMENT. ISSN 1420-2026, AUG 2009, vol. 14, no. 4, p. 521-537. [WOS]

--- PROKOPYEV, O.A. - BUTENKO, S. - TRAPP, A. Checking solvability of systems of interval linear equations and inequalities via mixed integer programming. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, NOV 16 2009, vol. 199, no. 1, p. 117-121. [WOS]

--- WEBER, G.W. - ALPARSLAN-GOK, S.Z. - SOYLER, B. A New Mathematical Approach in

- Environmental and Life Sciences: Gene-Environment Networks and Their Dynamics. ENVIRONMENTAL MODELING & ASSESSMENT. ISSN 1420-2026, APR 2009, vol. 14, no. 2, p. 267-288. [WOS]
- HLADIK, M. Tolerances in Portfolio Selection via Interval Linear Programming. PROCEEDINGS OF THE 26TH INTERNATIONAL CONFERENCE ON MATHEMATICAL METHODS IN ECONOMICS 2008. 2008, p. 187-193. [WOS]
- WEBER, G.W. - TAYLAN, P. - ALPARSLAN-GOK, S.Z. - OZOGUR-AKYUZ, S. - AKTEKE-OZTURK, B. Optimization of gene-environment networks in the presence of errors and uncertainty with Chebychev approximation. TOP. ISSN 1134-5764, DEC 2008, vol. 16, no. 2, p. 284-318. [WOS]
- CHEN, L. - MINE, A. - WANG, J. - COUSOT, P. Interval Polyhedra: An Abstract Domain to Infer Interval Linear Relationships. STATIC ANALYSIS. ISSN 0302-9743, 2009, vol. 5673, p. 309-325. [WOS]
- CHEN, L.Q. - MINE, A. - COUSOT, P. A Sound Floating-Point Polyhedra Abstract Domain. PROGRAMMING LANGUAGES AND SYSTEMS, PROCEEDINGS. ISSN 0302-9743, 2008, vol. 5356, p. 3-18. [WOS]
- HLADIK, M. Optimal value bounds in nonlinear programming with interval data. 20TH INTERNATIONAL CONFERENCE, EURO MINI CONFERENCE CONTINUOUS OPTIMIZATION AND KNOWLEDGE-BASED TECHNOLOGIES, EUROPT'2008. 2008, p. 154-159. [WOS]
- XU, Y. - QIN, X.S. Agricultural effluent control under uncertainty: An inexact double-sided fuzzy chance-constrained model. ADVANCES IN WATER RESOURCES. ISSN 0309-1708, SEP 2010, vol. 33, no. 9, p. 997-1014. [WOS]
- THIPWIWATPOTJANA, P. - LODWICK, W.A. The Use of Interval-Valued Probability Measures in Fuzzy Linear Programming: A Constraint Set Approach. PROCEEDINGS OF THE JOINT 2009 INTERNATIONAL FUZZY SYSTEMS ASSOCIATION WORLD CONGRESS AND 2009 EUROPEAN SOCIETY OF FUZZY LOGIC AND TECHNOLOGY CONFERENCE. 2009, p. 321-326. [WOS]
- ZOU, R. - LIU, Y. - LIU, L. - GUO, H.C. REILP Approach for Uncertainty-Based Decision Making in Civil Engineering. JOURNAL OF COMPUTING IN CIVIL ENGINEERING. ISSN 0887-3801, JUL-AUG 2010, vol. 24, no. 4, p. 357-364. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. Characterizing and approximating eigenvalue sets of symmetric interval matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, OCT 2011, vol. 62, no. 8, p. 3152-3163. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]
- LI, W. - TIAN, X.L. Fault Detection in Discrete Dynamic Systems with Uncertainty Based on Interval Optimization. MATHEMATICAL MODELLING AND ANALYSIS. ISSN 1392-6292, 2011, vol. 16, no. 4, p. 549-557. [WOS]
- KARADEMIR, S. - PROKOPYEV, O.A. A short note on solvability of systems of interval linear equations. LINEAR & MULTILINEAR ALGEBRA. ISSN 0308-1087, 2011, vol. 59, no. 6, p. 707-710. [WOS]
- HU, S.L. - HUANG, Z.H. A note on absolute value equations. OPTIMIZATION LETTERS. ISSN 1862-4472, AUG 2010, vol. 4, no. 3, p. 417-424. [WOS]
- CHEN, L.Q. - MINE, A. - WANG, J. - COUSOT, P. An Abstract Domain to Discover Interval Linear Equalities. VERIFICATION, MODEL CHECKING, AND ABSTRACT INTERPRETATION, PROCEEDINGS. ISSN 0302-9743, 2010, vol. 5944, p. 112-128. [WOS]
- HLADIK, M. INTERVAL VALUED BIMATRIX GAMES. KYBERNETIKA. ISSN 0023-5954, 2010, vol. 46, no. 3, SI, p. 435-446. [WOS]
- SHARY, S.P. Solvability of interval linear equations and data analysis under uncertainty. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, FEB 2012, vol. 73, no. 2, p. 310-322.

[WOS]

- ALLAHVIRANLOO, T. - GHANBARI, M. A new approach to obtain algebraic solution of interval linear systems. *SOFT COMPUTING*. ISSN 1432-7643, JAN 2012, vol. 16, no. 1, p. 121-133. [WOS]
- KUSRAEV, A.G. - KUTATELADZE, S.S. Envelopes and inequalities in vector lattices. *POSITIVITY*. ISSN 1385-1292, DEC 2011, vol. 15, no. 4, SI, p. 661-676. [WOS]
- LIU, Y. - ZOU, R. - RIVERSON, J. - YANG, P.J. - GUO, H.C. Guided adaptive optimal decision making approach for uncertainty based watershed scale load reduction. *WATER RESEARCH*. ISSN 0043-1354, OCT 15 2011, vol. 45, no. 16, p. 4885-4895. [WOS]
- NITICA, V. - SERGEEV, S. An interval version of separation by semispaces in max-min convexity. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, OCT 1 2011, vol. 435, no. 7, SI, p. 1637-1648. [WOS]
- HLADIK, M. Optimal value bounds in nonlinear programming with interval data. *TOP*. ISSN 1134-5764, JUL 2011, vol. 19, no. 1, p. 93-106. [WOS]
- WEBER, G.W. - DEFTERLI, O. - GOK, S.Z.A. - KROPAT, E. Modeling, inference and optimization of regulatory networks based on time series data. *EUROPEAN JOURNAL OF OPERATIONAL RESEARCH*. ISSN 0377-2217, MAY 16 2011, vol. 211, no. 1, p. 1-14. [WOS]
- KUTATELADZE, S.S. THE POLYHEDRAL LAGRANGE PRINCIPLE. *SIBERIAN MATHEMATICAL JOURNAL*. ISSN 0037-4466, MAY 2011, vol. 52, no. 3, p. 484-486. [WOS]
- GOUTTEFARDE, M. - DANAY, D. - MERLET, J.P. Interval-Analysis-Based Determination of the Wrench-Feasible Workspace of Parallel Cable-Driven Robots. *IEEE TRANSACTIONS ON ROBOTICS*. ISSN 1552-3098, FEB 2011, vol. 27, no. 1, p. 1-13. [WOS]
- HLADIK, M. Tolerance analysis in linear systems and linear programming. *OPTIMIZATION METHODS & SOFTWARE*. ISSN 1055-6788, 2011, vol. 26, no. 3, p. 381-396. [WOS]
- LIU, Y. - ZOU, R. - GUO, H.C. Risk Explicit Interval Linear Programming Model for Uncertainty-Based Nutrient-Reduction Optimization for the Lake Qionghai Watershed. *JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT-ASCE*. ISSN 0733-9496, JAN-FEB 2011, vol. 137, no. 1, p. 83-91. [WOS]
- KEARFOTT, R.B. Interval computations, rigour and non-rigour in deterministic continuous global optimization. *OPTIMIZATION METHODS & SOFTWARE*. ISSN 1055-6788, 2011, vol. 26, no. 2, p. 259-279. [WOS]
- WEBER, G.W. - KROPAT, E. - TEZEL, A. - BELEN, S. OPTIMIZATION APPLIED ON REGULATORY AND ECO-FINANCE NETWORKS - SURVEY AND NEW DEVELOPMENTS -. *PACIFIC JOURNAL OF OPTIMIZATION*. ISSN 1348-9151, MAY 2010, vol. 6, no. 2, SI, p. 319-340. [WOS]
- GAVALEC, M. - PLAVKA, J. MONOTONE INTERVAL EIGENPROBLEM IN MAX-MIN ALGEBRA. *KYBERNETIKA*. ISSN 0023-5954, 2010, vol. 46, no. 3, SI, p. 387-396. [WOS]
- WEBER, G.W. - KROPAT, E. - AKTEKE-OZTURK, B. - GORGULU, Z.K. A survey on OR and mathematical methods applied on gene-environment networks. *CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH*. ISSN 1435-246X, SEP 2009, vol. 17, no. 3, p. 315-341. [WOS]
- WEBER, G.W. - UGUR, O. - TAYLAN, P. - TEZEL, A. On optimization, dynamics and uncertainty: A tutorial for gene-environment networks. *DISCRETE APPLIED MATHEMATICS*. ISSN 0166-218X, MAY 28 2009, vol. 157, no. 10, p. 2494-2513. [WOS]
- FAN, Y.R. - HUANG, G.H. A Robust Two-Step Method for Solving Interval Linear Programming Problems within an Environmental Management Context. *JOURNAL OF ENVIRONMENTAL INFORMATICS*. ISSN 1726-2135, MAR 2012, vol. 19, no. 1, p. 1-9. [WOS]
- PLAVKA, J. On the  $O(n^3)$  algorithm for checking the strong robustness of interval fuzzy matrices. *DISCRETE APPLIED MATHEMATICS*. ISSN 0166-218X, MAR 2012, vol. 160, no. 4-5, p. 640-647. [WOS]

**Rohn, Jiří**

Perron Vectors of an Irreducible Nonnegative Interval Matrix.  
*Linear & Multilinear Algebra*. Roč. 54, č. 6 (2006), s. 399-404. ISSN 0308-1087  
Impakt faktor: 0.310, rok: 2006  
[DOI: 10.1080/03081080500304710](https://doi.org/10.1080/03081080500304710)

Citováno: 1

--- MATCOVSCHI, M.H. - PASTRAVANU, O. Perron-Frobenius theorem and invariant sets in linear systems dynamics. 2007 MEDITERRANEAN CONFERENCE ON CONTROL & AUTOMATION, VOLS 1-4. 2007, p. 713-718. [WOS]

**Rohn, Jiří**

Regularity of Interval Matrices and Theorems of the Alternatives.  
*Reliable Computing*. Roč. 12, č. 2 (2006), s. 99-105. ISSN 1385-3139  
[DOI: 10.1007/s11155-006-4877-z](https://doi.org/10.1007/s11155-006-4877-z)

Citováno: 3

--- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]  
--- UWAMUSI, S.E. On the interval hull of solution sets of parametrised nonlinear equations. SCIENTIFIC RESEARCH AND ESSAYS. ISSN 1992-2248, SEP 2008, vol. 3, no. 9, p. 383-389. [WOS]  
--- SOSTAKS, A. Mathematics in the Context of Fuzzy Sets: Basic Ideas, Concepts, and Some Remarks on the History and Recent Trends of Development. MATHEMATICAL MODELLING AND ANALYSIS. ISSN 1392-6292, JUN 2011, vol. 16, no. 2, p. 173-198. [WOS]

## 2005

**Rohn, Jiří**

A Handbook of Results on Interval Linear Problems.  
Praha, 2005  
<http://uivtx.cs.cas.cz/~rohn/publist/handbook.pdf>  
<http://www.cs.cas.cz/rohn/handbook>

Citováno: 1

--- RUMP, S.M. VERIFIED BOUNDS FOR LEAST SQUARES PROBLEMS AND UNDERDETERMINED LINEAR SYSTEMS. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2012, vol. 33, no. 1, p. 130-148. [WOS]

**Rohn, Jiří**

How Strong is Strong Regularity?.  
*Reliable Computing*. Roč. 11, č. 6 (2005), s. 491-493. ISSN 1385-3139  
[DOI: 10.1007/s11155-005-0407-7](https://doi.org/10.1007/s11155-005-0407-7)


Citováno: 1

--- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]

**Rohn, Jiří**

Linear Interval Equations: Midpoint Preconditioning May Produce a 100% Overestimation for Arbitrarily Narrow Data Even in Case  $n = 4$ .

*Reliable Computing*. Roč. 11, č. 2 (2005), s. 129-135. ISSN 1385-3139

 [DOI: 10.1007/s11155-005-3033-5](https://doi.org/10.1007/s11155-005-3033-5)

Citováno: 1

--- UWAMUSI, S.E. On the interval hull of solution sets of parametrised nonlinear equations. SCIENTIFIC RESEARCH AND ESSAYS. ISSN 1992-2248, SEP 2008, vol. 3, no. 9, p. 383-389. [WOS]

## 2004

**Rohn, Jiří**

A Theorem of the Alternatives for the Equation  $Ax + B|x| = b$ .

*Linear & Multilinear Algebra*. Roč. 52, č. 6 (2004), s. 421-426. ISSN 0308-1087

Impakt faktor: 0.377, rok: 2004

 [DOI: 10.1080/0308108042000220686](https://doi.org/10.1080/0308108042000220686)

Citováno: 15

--- MANGASARIAN, O.L. Absolute value programming. COMPUTATIONAL OPTIMIZATION AND APPLICATIONS. ISSN 0926-6003, JAN 2007, vol. 36, no. 1, p. 43-53. [WOS]

--- PROKOPYEV, O. On equivalent reformulations for absolute value equations. COMPUTATIONAL OPTIMIZATION AND APPLICATIONS. ISSN 0926-6003, DEC 2009, vol. 44, no. 3, p. 363-372. [WOS]

--- ZHANG, C. - WEI, Q.J. Global and Finite Convergence of a Generalized Newton Method for Absolute Value Equations. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, NOV 2009, vol. 143, no. 2, p. 391-403. [WOS]

--- MANGASARIAN, O.L. Absolute value equation solution via concave minimization. OPTIMIZATION LETTERS. ISSN 1862-4472, JAN 2007, vol. 1, no. 1, p. 3-8. [WOS]

--- MANGASARIAN, O.L. A generalized Newton method for absolute value equations. OPTIMIZATION LETTERS. ISSN 1862-4472, JAN 2009, vol. 3, no. 1, p. 101-108. [WOS]

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184. [WOS]

--- MANGASARIAN, O.L. - RECHT, B. Probability of unique integer solution to a system of linear equations. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, OCT 1 2011, vol. 214, no. 1, p. 27-30. [WOS]

--- KARADEMIR, S. - PROKOPYEV, O.A. A short note on solvability of systems of interval linear equations. LINEAR & MULTILINEAR ALGEBRA. ISSN 0308-1087, 2011, vol. 59, no. 6, p. 707-710. [WOS]

--- CACCETTA, L. - QU, B.A. - ZHOU, G.L. A globally and quadratically convergent method for absolute value equations. COMPUTATIONAL OPTIMIZATION AND APPLICATIONS. ISSN 0926-6003, JAN 2011, vol. 48, no. 1, p. 45-58. [WOS]

--- HU, S.L. - HUANG, Z.H. - ZHANG, Q.O. A generalized Newton method for absolute value equations associated with second order cones. JOURNAL OF COMPUTATIONAL AND APPLIED



- MATHEMATICS. ISSN 0377-0427, JAN 1 2011, vol. 235, no. 5, p. 1490-1501. [WOS]  
--- HU, S.L. - HUANG, Z.H. A note on absolute value equations. OPTIMIZATION LETTERS. ISSN 1862-4472, AUG 2010, vol. 4, no. 3, p. 417-424. [WOS]  
--- YONG, L.Q. Social Cognitive Optimization for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON SYSTEM SCIENCE AND SIMULATION IN ENGINEERING (SSSE 2010). 2010, p. 161-164. [WOS]  
--- YONG, L.Q. Differential Evolution Algorithm for Absolute Value Equations. 2010 ETP/IITA CONFERENCE ON TELECOMMUNICATION AND INFORMATION (TEIN 2010). 2010, p. 52-55. [WOS]  
--- NOOR, M.A. - IQBAL, J. - NOOR, K.I. - AL-SAID, E. Generalized AOR Method for Solving Absolute Complementarity Problems. JOURNAL OF APPLIED MATHEMATICS. ISSN 1110-757X, 2012. [WOS]  
--- NOOR, M.A. - IQBAL, J. - AL-SAID, E. Residual Iterative Method for Solving Absolute Value Equations. ABSTRACT AND APPLIED ANALYSIS. ISSN 1085-3375, 2012. [WOS]

### **Rohn, Jiří**


A Method for Handling Dependent Data in Interval Linear Systems.  
Prague : ICS AS CR, 2004. 7 s. - (Technical Report, V-911)

Citováno: 2

- SKALNA, I. On checking the monotonicity of parametric interval solution of linear structural systems. PARALLEL PROCESSING AND APPLIED MATHEMATICS. ISSN 0302-9743, 2008, vol. 4967, p. 1400-1409. [WOS]  
--- SKALNA, I. Direct Method for Solving Parametric Interval Linear Systems with Non-affine Dependencies. PARALLEL PROCESSING AND APPLIED MATHEMATICS, PART II. ISSN 0302-9743, 2010, vol. 6068, p. 485-494. [WOS]

## **2003**

### **Rohn, Jiří**

Solvability of Systems of Linear Interval Equations.  
*SIAM Journal on Matrix Analysis and Applications*. Roč. 25, č. 1 (2003), s. 237-245.  
ISSN 0895-4798  
Impakt faktor: 0.913, rok: 2003  
 [DOI: 10.1137/S0895479801398955](https://doi.org/10.1137/S0895479801398955)

Citováno: 6

- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]  
--- DEGHAN, M. - HASHEMI, B. Solution of the fully fuzzy linear systems using the decomposition procedure. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, NOV 15 2006, vol. 182, no. 2, p. 1568-1580. [WOS]  
--- PROKOPYEV, O.A. - BUTENKO, S. - TRAPP, A. Checking solvability of systems of interval linear equations and inequalities via mixed integer programming. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, NOV 16 2009, vol. 199, no. 1, p. 117-121. [WOS]  
--- MOTTO, A.L. On the exact solution of a class of Stackelberg games. ACC: PROCEEDINGS OF THE 2005 AMERICAN CONTROL CONFERENCE, VOLS 1-7. ISSN 0743-1619, 2005, p. 249-250. [WOS]  
--- LI, W. - TIAN, X.L. Fault Detection in Discrete Dynamic Systems with Uncertainty Based on Interval Optimization. MATHEMATICAL MODELLING AND ANALYSIS. ISSN 1392-6292, 2011, vol. 16, no. 4, p. 549-557. [WOS]

--- KARADEMIR, S. - PROKOPYEV, O.A. A short note on solvability of systems of interval linear equations. *LINEAR & MULTILINEAR ALGEBRA*. ISSN 0308-1087, 2011, vol. 59, no. 6, p. 707-710. [WOS]

## 2002

### Rohn, Jiří

Systems of Interval Linear Equations and Inequalities (Rectangular Case).  
Prague : ICS AS CR, 2002. 69 s. - (Technical Report, V-875)

Citováno: 8

--- MYSKOVA, H. Control solvability of interval systems of max-separable linear equations. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, JUL 15 2006, vol. 416, no. 2-3, p. 215-223. [WOS]

--- MYSKOVA, H. Interval systems of max-separable linear equations. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, JUL 1 2005, vol. 403, p. 263-272. [WOS]

--- HLADIK, M. Separation of convex polyhedral sets with uncertain data. *PROCEEDINGS OF THE 24TH INTERNATIONAL CONFERENCE ON MATHEMATICAL METHODS IN ECONOMICS 2006*. 2006, p. 227-234. [WOS]

--- GOUTTEFARDE, M. - MERLET, J.P. - DANNEY, D. Wrench-feasible workspace of parallel cable-driven mechanisms. *PROCEEDINGS OF THE 2007 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION, VOLS 1-10*. ISSN 1050-4729, 2007, p. 1492-1497. [WOS]

--- MERLET, J.P. - DANNEY, D. Dimensional synthesis of parallel robots with a guaranteed given accuracy over a specific workspace. *2005 IEEE International Conference on Robotics and Automation (ICRA), Vols 1-4*. ISSN 1050-4729, 2005, p. 942-947. [WOS]

--- SKALNA, I. On checking the monotonicity of parametric interval solution of linear structural systems. *PARALLEL PROCESSING AND APPLIED MATHEMATICS*. ISSN 0302-9743, 2008, vol. 4967, p. 1400-1409. [WOS]

--- POPOVA, E.D. Parametric interval linear solver. *NUMERICAL ALGORITHMS*. ISSN 1017-1398, DEC 2004, vol. 37, no. 1-4, p. 345-356. [WOS]

--- POPOVA, E.D. - DATCHEVA, M. - IANKOV, R. - SCHANZ, T. Sharp bounds for strains and stresses in uncertain mechanical models. *LARGE-SCALE SCIENTIFIC COMPUTING*. ISSN 0302-9743, 2003, vol. 2907, p. 262-269. [WOS]

## 2000

### Rohn, Jiří

Computing the norm  $\diamond A_{\infty,1}$  is NP-hard.

*Linear & Multilinear Algebra*. Roč. 47, č. 3 (2000), s. 195-204. ISSN 0308-1087

[DOI: 10.1080/03081080008818644](https://doi.org/10.1080/03081080008818644)

Citováno: 6

--- TROPP, J.A. - GILBERT, A.C. - STRAUSS, M.J. Algorithms for simultaneous sparse approximation. Part I: Greedy pursuit. *SIGNAL PROCESSING*. ISSN 0165-1684, MAR 2006, vol. 86, no. 3, p. 572-588. [WOS]

--- HLADIK, M. Separation of convex polyhedral sets with uncertain data. *PROCEEDINGS OF THE 24TH INTERNATIONAL CONFERENCE ON MATHEMATICAL METHODS IN ECONOMICS 2006*. 2006, p.

227-234. [WOS]

--- QUEIRO, J.F. Composite norms and perfect conditioning. *LINEAR & MULTILINEAR ALGEBRA*. ISSN 0308-1087, 2008, vol. 56, no. 5, p. 589-596. [WOS]

--- MCCOY, M. - TROPP, J.A. Two proposals for robust PCA using semidefinite programming. *ELECTRONIC JOURNAL OF STATISTICS*. ISSN 1935-7524, 2011, vol. 5, p. 1123-1160. [WOS]

--- HENDRICKX, J.M. - OLSHEVSKY, A. MATRIX  $p$ -NORMS ARE NP-HARD TO APPROXIMATE IF  $p$  not equal 1, 2, infinity. *SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS*. ISSN 0895-4798, 2010, vol. 31, no. 5, p. 2802-2812. [WOS]

--- TROPP, J.A. Column Subset Selection, Matrix Factorization, and Eigenvalue Optimization. *PROCEEDINGS OF THE TWENTIETH ANNUAL ACM-SIAM SYMPOSIUM ON DISCRETE ALGORITHMS*. 2009, p. 978-986. [WOS]

## 1999

**Jansson, C. - Rohn, Jiří**

An Algorithm for Checking Regularity of Interval Matrices.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 20, č. 3 (1999), s. 756-776. ISSN 0895-4798

Impakt faktor: 0.663, rok: 1999

[DOI: 10.1137/S0895479896313978](https://doi.org/10.1137/S0895479896313978)

Citováno: 13

--- GRIFFIN, K. - TSATSOMEROS, M.J. Principal minors, Part I: A method for computing all the principal minors of a matrix. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, NOV 1 2006, vol. 419, no. 1, p. 107-124. [WOS]

--- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. *COMPUTATIONAL STATISTICS*. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]

--- DEGHAN, M. - HASHEMI, B. Solution of the fully fuzzy linear systems using the decomposition procedure. *APPLIED MATHEMATICS AND COMPUTATION*. ISSN 0096-3003, NOV 15 2006, vol. 182, no. 2, p. 1568-1580. [WOS]

--- LIU, W. Necessary and Sufficient Conditions for the Positive Definiteness and Stability of Symmetric Interval Matrices. *CCDC 2009: 21ST CHINESE CONTROL AND DECISION CONFERENCE, VOLS 1-6, PROCEEDINGS*. 2009, p. 4574-4579. [WOS]

--- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. *INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS*. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]

--- KOLEV, L.V. Determining the positive definiteness margin of interval matrices. *RELIABLE COMPUTING*. ISSN 1385-3139, DEC 2007, vol. 13, no. 6, p. 445-466. [WOS]

--- LAURO, C.N. - PALUMBO, F. Principal component analysis for non-precise data. *New Developments in Classification and Data Analysis*. ISSN 1431-8814, 2005, p. 173-184. [WOS]

--- RUMP, S.M. On P-matrices. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, APR 1 2003, vol. 363, p. 237-250. [WOS]

--- NEDOMA, J. On solving vague systems of linear equations with pattern-shaped columns. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 107-118. [WOS]

--- HARDING, S.T. - FLOUDAS, C.A. Phase stability with cubic equations of state: Global optimization approach. *AIChE JOURNAL*. ISSN 0001-1541, JUL 2000, vol. 46, no. 7, p. 1422-1440. [WOS]

--- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval

eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]

--- MERLET, J.P. Interval Analysis and Robotics. ROBOTICS RESEARCH. ISSN 1610-7438, 2010, vol. 66, p. 147-156. [WOS]

--- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. ACTA NUMERICA 2010, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

## **1998**

**Kreinovich, V. - Lakeyev, A. - Rohn, Jiří - Kahl, P.**

Computational Complexity and Feasibility of Data Processing and Interval Computations.

Dordrecht : Kluwer Academic Publ., 1998. 459 s. - (Applied Optimization, 10).

ISBN 0-7923-4865-6

Citováno: 34

--- DEHGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]

--- MERLET, J.P. INTERVAL ANALYSIS FOR CERTIFIED NUMERICAL SOLUTION OF PROBLEMS IN ROBOTICS. INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE. ISSN 1641-876X, SEP 2009, vol. 19, no. 3, p. 399-412. [WOS]

--- PANTELIC, V. - POSTMA, S.M. - LAWFORD, M. Probabilistic Supervisory Control of Probabilistic Discrete Event Systems. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, AUG 2009, vol. 54, no. 8, p. 2013-2018. [WOS]

--- LI, P. - FANG, S.C. A note on solution sets of interval-valued fuzzy relational equations. FUZZY OPTIMIZATION AND DECISION MAKING. ISSN 1568-4539, MAR 2009, vol. 8, no. 1, p. 115-121. [WOS]

--- POWNUK, A. - CERVENY, J. - BRADY, J.J. Fast algorithms for uncertainty propagation, and their applications to structural integrity. 2008 ANNUAL MEETING OF THE NORTH AMERICAN FUZZY INFORMATION PROCESSING SOCIETY, VOLS 1 AND 2. 2008, p. 568-573. [WOS]

--- VILLAVERDE, K. - ORNELAS, G. Beyond intervals: Phase transitions lead to more general ranges. 2008 ANNUAL MEETING OF THE NORTH AMERICAN FUZZY INFORMATION PROCESSING SOCIETY, VOLS 1 AND 2. 2008, p. 596-600. [WOS]

--- KEARFOTT, R.B. A comparison of some methods for bounding connected and disconnected solution sets of interval linear systems. COMPUTING. ISSN 0010-485X, APR 2008, vol. 82, no. 1, p. 77-102. [WOS]

--- KOSHELEVA, O. - SHPAK, M. - CAMPOS, M.A. - DIMURO, G.P. - COSTA, A.C.D.R. Computing linear and nonlinear normal modes under interval (and fuzzy) uncertainty. NAFIPS 2006 - 2006 Annual Meeting of the North American Fuzzy Information Processing Society, Vols 1 and 2. 2006, p. 611-616. [WOS]

--- MERLET, J.P. Formal-numerical approach for robust in-workspace singularity detection. IEEE TRANSACTIONS ON ROBOTICS. ISSN 1552-3098, JUN 2007, vol. 23, no. 3, p. 393-402. [WOS]

--- ZILINSKAS, J. - BOGLE, I.D.L. Balanced random interval arithmetic in market model estimation. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, DEC 16 2006, vol. 175, no. 3, p. 1367-1378. [WOS]

--- DEHGHAN, M. - HASHEMI, B. - GHATEE, M. Computational methods for solving fully fuzzy linear systems. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, AUG 1 2006, vol. 179, no. 1, p. 328-343. [WOS]

- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]
- LEBBAH, Y. - MICHEL, C. - RUEHER, M. - DANNEY, D. - MERLET, J.P. Efficient and safe global constraints for handling numerical constraint systems. SIAM JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, 2005, vol. 42, no. 5, p. 2076-2097. [WOS]
- PINAR, M.C. - ARIKAN, O. On robust solutions to linear least squares problems affected by data uncertainty and implementation errors with application to stochastic signal modeling. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 1 2004, vol. 391, p. 223-243. [WOS]
- SCHAFER, U. A linear complementarity problem with a P-matrix. SIAM REVIEW. ISSN 0036-1445, JUN 2004, vol. 46, no. 2, p. 189-201. [WOS]
- FELIX, P. - BARRO, S. - MARIN, R. Fuzzy constraint networks for signal pattern recognition. ARTIFICIAL INTELLIGENCE. ISSN 0004-3702, AUG 2003, vol. 148, no. 1-2, p. 103-140. [WOS]
- LEBBAH, Y. - LHOMME, O. Accelerating filtering techniques for numeric CSPs. ARTIFICIAL INTELLIGENCE. ISSN 0004-3702, JUL 2002, vol. 139, no. 1, p. 109-132. [WOS]
- KEARFOTT, R.B. - DIAN, J.W. Verifying topological indices for higher-order rank deficiencies. JOURNAL OF COMPLEXITY. ISSN 0885-064X, JUN 2002, vol. 18, no. 2, p. 589-611. [WOS]
- MENDEL, J.M. - JOHN, R.I. Type-2 fuzzy sets made simple. IEEE TRANSACTIONS ON FUZZY SYSTEMS. ISSN 1063-6706, APR 2002, vol. 10, no. 2, p. 117-127. [WOS]
- LIANG, Q.L. - MENDEL, J.M. Interval type-2 fuzzy logic systems. NINTH IEEE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS (FUZZ-IEEE 2000), VOLS 1 AND 2. 2000, p. 328-333. [WOS]
- LITVINOV, G.L. - SOBOLEVSKII, A.N. Exact interval solutions to the discrete Bellman equation and polynomial complexity of problems in interval idempotent linear algebra. DOKLADY MATHEMATICS. ISSN 1064-5624, SEP-OCT 2000, vol. 62, no. 2, p. 199-201. [WOS]
- TONON, F. - BERNARDINI, A. - MAMMINO, A. Reliability analysis of rock mass response by means of Random Set Theory. RELIABILITY ENGINEERING & SYSTEM SAFETY. ISSN 0951-8320, DEC 2000, vol. 70, no. 3, p. 263-282. [WOS]
- ALEFELD, G. - MAYER, G. Interval analysis: theory and applications. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, SEP 1 2000, vol. 121, no. 1-2, p. 421-464. [WOS]
- SHARY, S.P. Solvability of interval linear equations and data analysis under uncertainty. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, FEB 2012, vol. 73, no. 2, p. 310-322. [WOS]
- HASHEMI, B. - DEHGHAN, M. The interval Lyapunov matrix equation: Analytical results and an efficient numerical technique for outer estimation of the united solution set. MATHEMATICAL AND COMPUTER MODELLING. ISSN 0895-7177, FEB 2012, vol. 55, no. 3-4, p. 622-633. [WOS]
- VILLAVERDE, K. - KOSHELEVA, O. Towards More Detailed Value-Added Teacher Assessments. 2010 IEEE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS (FUZZ-IEEE 2010). ISSN 1098-7584, 2010. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, SI, p. 279-296. [WOS]
- KULISCH, U. Computer Arithmetic and Validity: Theory, Implementation, and Applications. COMPUTER ARITHMETIC AND VALIDITY: THEORY, IMPLEMENTATION, AND APPLICATIONS. ISSN 0179-0986, 2008, vol. 33, p. 1-410. [WOS]
- KEARFOTT, R.B. - HU, C.Y. Fundamentals of Interval Computing. KNOWLEDGE PROCESSING WITH INTERVAL AND SOFT COMPUTING. ISSN 1610-3947, 2008, p. 1-12. [WOS]
- HU, C.Y. - KEARFOTT, R.B. Interval Matrices in Knowledge Discovery. KNOWLEDGE PROCESSING WITH INTERVAL AND SOFT COMPUTING. ISSN 1610-3947, 2008, p. 99-117. [WOS]
- POWNUK, A. Numerical solutions of fuzzy partial differential equations and its applications in

computational mechanics. FUZZY PARTIAL DIFFERENTIAL EQUATIONS AND RELATIONAL EQUATIONS: RESERVOIR CHARACTERIZATION AND MODELING. ISSN 1434-9922, 2004, vol. 142, p. 308-347. [WOS]

--- ARAYA, I. - NEVEU, B. - TROMBETTONI, G. An interval extension based on occurrence grouping. COMPUTING. ISSN 0010-485X, MAR 2012, vol. 94, no. 2-4, SI, p. 173-188. [WOS]

--- MASLOV, V.P. New probability theory compatible with the new conception of modern thermodynamics. Economics and crisis of debts. RUSSIAN JOURNAL OF MATHEMATICAL PHYSICS. ISSN 1061-9208, MAR 2012, vol. 19, no. 1, p. 63-100. [WOS]

--- MASLOV, V.P. - MASLOVA, T.V. Wiener Quantization of Economics as an Analog of the Quantization of Thermodynamics. MATHEMATICAL NOTES. ISSN 0001-4346, FEB 2012, vol. 91, no. 1-2, p. 81-89. [WOS]

### **Rohn, Jiří**

Bounds on Eigenvalues of Interval Matrices.

*ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*. Roč. 78, Supplement 3 (1998), s. S1049-S1050. ISSN 0044-2267

Impakt faktor: 0.107, rok: 1998

[DOI: 10.1002/zamm.19980781593](https://doi.org/10.1002/zamm.19980781593)

Citováno: 10

--- Cecharova K, Cuninghame-Green R.A. Interval systems of max-separable linear equations. Linear Algebra APPL, 2002, vol. 340, p. 215-224 [WOS]

--- WU, Z.Y. - LI, D. - ZHANG, L.S. - YANG, X.M. Peeling off a nonconvex cover of an actual convex problem: Hidden convexity. SIAM JOURNAL ON OPTIMIZATION. ISSN 1052-6234, 2007, vol. 18, no. 2, p. 507-536. [WOS]

--- ADJIMAN, C.S. - DALLWIG, S. - FLOUDAS, C.A. - NEUMAIER, A. A global optimization method, alpha BB, for general twice-differentiable constrained NLPs - I. Theoretical advances. COMPUTERS & CHEMICAL ENGINEERING. ISSN 0098-1354, 1998, vol. 22, no. 9, p. 1137-1158. [WOS]

--- YUAN, Q. - LENG, H.N. - HE, Z.Q. A property of eigenvalue bounds for a class of symmetric tridiagonal interval matrices. NUMERICAL LINEAR ALGEBRA WITH APPLICATIONS. ISSN 1070-5325, AUG 2011, vol. 18, no. 4, p. 707-717. [WOS]

--- PASTRAVANU, O. - MATCOVSCHI, M.H. Comments on "Assessing the Stability of Linear Time-Invariant Continuous Interval Dynamic Systems". IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, JUN 2011, vol. 56, no. 6, p. 1442-1445. [WOS]

--- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]

--- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. A filtering method for the interval eigenvalue problem. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, FEB 15 2011, vol. 217, no. 12, p. 5236-5242. [WOS]

--- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. BOUNDS ON REAL EIGENVALUES AND SINGULAR VALUES OF INTERVAL MATRICES. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2010, vol. 31, no. 4, p. 2116-2129. [WOS]

--- GARLOFF, J. Pivot tightening for direct methods for solving symmetric positive definite systems of linear interval equations. COMPUTING. ISSN 0010-485X, MAR 2012, vol. 94, no. 2-4, SI, p. 97-107. [WOS]

--- MATCOVSCHI, M.H. - PASTRAVANU, O. - VOICU, M. Right Bounds for Eigenvalue Ranges of

Interval Matrices - Estimation Principles vs Global Optimization. CONTROL ENGINEERING AND APPLIED INFORMATICS. ISSN 1454-8658, MAR 2012, vol. 14, no. 1, p. 3-13. [WOS]

**Rohn, Jiří - Rex, G.**

Enclosing Solutions of Linear Equations.

*SIAM Journal on Numerical Analysis*. Roč. 35, č. 2 (1998), s. 524-539. ISSN 0036-1429

Impakt faktor: 1.254, rok: 1998

 [DOI: 10.1137/S0036142996299423](https://doi.org/10.1137/S0036142996299423)

Citováno: 5

--- MUHANNA, R.L. - MULLEN, R.L. - ZHANG, H. Penalty-based solution for the interval finite-element methods. JOURNAL OF ENGINEERING MECHANICS-ASCE. ISSN 0733-9399, OCT 2005, vol. 131, no. 10, p. 1102-1111. [WOS]

--- VROMAN, A. - DESCHRIJVER, G. - KERRE, E.E. Solving systems of linear fuzzy equations by parametric functions. IEEE TRANSACTIONS ON FUZZY SYSTEMS. ISSN 1063-6706, JUN 2007, vol. 15, no. 3, p. 370-384. [WOS]

--- RIHM, R. Acceleration of iteration methods for interval fixed point problems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 189-207. [WOS]

--- SKALNA, I. A Comparison of Methods for Solving Parametric Interval Linear Systems with General Dependencies. NUMERICAL METHODS AND APPLICATIONS. ISSN 0302-9743, 2011, vol. 6046, p. 494-501. [WOS]

--- ZHANG, H. - MULLEN, R.L. - MUHANNA, R.L. Interval Monte Carlo methods for structural reliability. STRUCTURAL SAFETY. ISSN 0167-4730, 2010, vol. 32, no. 3, p. 183-190. [WOS]

**Rohn, Jiří**

Linear Programming with Inexact Data is NP-hard.

*ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*. Roč. 78, Supplement 3 (1998), s. S1051-S1052. ISSN 0044-2267

Impakt faktor: 0.107, rok: 1998

 [DOI: 10.1002/zamm.19980781594](https://doi.org/10.1002/zamm.19980781594)

Citováno: 3

--- PROKOPYEV, O.A. - BUTENKO, S. - TRAPP, A. Checking solvability of systems of interval linear equations and inequalities via mixed integer programming. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, NOV 16 2009, vol. 199, no. 1, p. 117-121. [WOS]

--- CECHLAROVA, K. - CUNINGHAME-GREEN, R.A. Interval systems of max-separable linear equations. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 1 2002, vol. 340, p. 215-224. [WOS]

--- LI, W. - TIAN, X.L. Fault Detection in Discrete Dynamic Systems with Uncertainty Based on Interval Optimization. MATHEMATICAL MODELLING AND ANALYSIS. ISSN 1392-6292, 2011, vol. 16, no. 4, p. 549-557. [WOS]

**Rex, G. - Rohn, Jiří**

Sufficient Conditions for Regularity and Singularity of Interval Matrices.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 20, č. 2 (1998), s. 437-445.

ISSN 0895-4798

Impakt faktor: 1.178, rok: 1998

 [DOI: 10.1137/S0895479896310743](https://doi.org/10.1137/S0895479896310743)

Citováno: 14

- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]
- CHEN, Y.Q. - AHN, H.S. - XUE, D.Y. Robust controllability of interval fractional order linear time invariant systems. SIGNAL PROCESSING. ISSN 0165-1684, OCT 2006, vol. 86, no. 10, p. 2794-2802. [WOS]
- MERLET, J.P. Formal-numerical approach for robust in-workspace singularity detection. IEEE TRANSACTIONS ON ROBOTICS. ISSN 1552-3098, JUN 2007, vol. 23, no. 3, p. 393-402. [WOS]
- DEHGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- MERLET, J.P. INTERVAL ANALYSIS FOR CERTIFIED NUMERICAL SOLUTION OF PROBLEMS IN ROBOTICS. INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE. ISSN 1641-876X, SEP 2009, vol. 19, no. 3, p. 399-412. [WOS]
- ZHANG, C. - WEI, Q.J. Global and Finite Convergence of a Generalized Newton Method for Absolute Value Equations. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, NOV 2009, vol. 143, no. 2, p. 391-403. [WOS]
- AHN, H.S. - MOORE, K.L. - CHEN, Y.Q. Linear independency of interval vectors and its applications to robust controllability tests. 2005 44th IEEE Conference on Decision and Control & European Control Conference, Vols 1-8. ISSN 0191-2216, 2005, p. 8070-8075. [WOS]
- CHEN, Y. - AHN, H.S. - XUE, D.Y. Robust controllability of interval fractional order linear time invariant systems. PROCEEDINGS OF THE ASME INTERNATIONAL DESIGN ENGINEERING TECHNICAL CONFERENCES AND COMPUTERS AND INFORMATION IN ENGINEERING CONFERENCE, VOL 6, PTS A-C. 2005, p. 1537-1545. [WOS]
- AHN, H.S. - CHEN, Y.Q. Sufficient conditions for linear dependency and independency of interval vectors. Proceedings of the 8th Joint Conference on Information Sciences, Vols 1-3. 2005, p. 253-256. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. A filtering method for the interval eigenvalue problem. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, FEB 15 2011, vol. 217, no. 12, p. 5236-5242. [WOS]
- AHN, H.S. Powers of parametric interval uncertain matrix. IET CONTROL THEORY AND APPLICATIONS. ISSN 1751-8644, FEB 2011, vol. 5, no. 3, p. 523-534. [WOS]
- SHARY, S.P. A New Method for Inner Estimation of Solution Sets to Interval Linear Systems. MODELING, DESIGN, AND SIMULATION OF SYSTEMS WITH UNCERTAINTIES. 2011, p. 21-42. [WOS]
- PASCA, I. Formally Verified Conditions for Regularity of Interval Matrices. INTELLIGENT COMPUTER MATHEMATICS. ISSN 0302-9743, 2010, vol. 6167, p. 219-233. [WOS]

## 1997

**Rohn, Jiří**

Complexity of Some Linear Problems with Interval Data.

*Reliable Computing*. Roč. 3, č. 3 (1997), s. 315-323. ISSN 1385-3139



[DOI: 10.1023/A:1009987227018](https://doi.org/10.1023/A:1009987227018)

Citováno: 2

--- MYSKOVA, H. Control solvability of interval systems of max-separable linear equations. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, JUL 15 2006, vol. 416, no. 2-3, p. 215-223.

[WOS]

--- BLONDEL, V.D. - TSITSIKLIS, J.N. A survey of computational complexity results in systems and control. *AUTOMATICA*. ISSN 0005-1098, SEP 2000, vol. 36, no. 9, p. 1249-1274. [WOS]

### Rohn, Jiří

On Overestimations Produced by the Interval Gaussian Algorithm.

*Reliable Computing*. Roč. 3, č. 4 (1997), s. 363-368. ISSN 1385-3139

[DOI: 10.1023/A:1009993319560](https://doi.org/10.1023/A:1009993319560)

Citováno: 3

--- MAYER, G. On regular and singular interval systems. *JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS*. ISSN 0377-0427, FEB 15 2007, vol. 199, no. 2, Sp. Iss. SI, p. 220-228.

[WOS]

--- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. *JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS*. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]

--- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. *JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS*. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]

### Rohn, Jiří

Overestimations in Bounding Solutions of Perturbed Linear Equations.

*Linear Algebra and Its Applications*. Roč. 262, - (1997), s. 55-65. ISSN 0024-3795

Impakt faktor: 0.329, rok: 1997

[DOI: 10.1016/S0024-3795\(97\)80022-5](https://doi.org/10.1016/S0024-3795(97)80022-5)

Citováno: 5

--- KANNO, Y. - TAKEWAKI, I. Confidence ellipsoids for static response of trusses with load and structural uncertainties. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. ISSN 0045-7825, 2006, vol. 196, no. 1-3, p. 393-403. [WOS]

--- KANNO, Y. - TAKEWAKI, I. Semidefinite programming for uncertain linear equations in static analysis of structures. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. ISSN 0045-7825, 2008, vol. 198, no. 1, Sp. Iss. SI, p. 102-115. [WOS]

--- POLYAK, B.T. - NAZIN, S.A. Interval solutions for interval algebraic equations. *MATHEMATICS AND COMPUTERS IN SIMULATION*. ISSN 0378-4754, JUN 29 2004, vol. 66, no. 2-3, p. 207-217. [WOS]

--- CALAFIORE, G. - EL GHAOU, L. Ellipsoidal bounds for uncertain linear equations and dynamical systems. *AUTOMATICA*. ISSN 0005-1098, MAY 2004, vol. 40, no. 5, p. 773-787. [WOS]

--- EL GHAOU, L. Inversion error, condition number, and approximate inverses of uncertain matrices. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, MAR 1 2002, vol. 343, p. 171-193. [WOS]

## 1996

**Rohn, Jiří**

An Algorithm for Checking Stability of Symmetric Interval Matrices.

*IEEE Transactions on Automatic Control*. Roč. 41, č. 1 (1996), s. 133-136. ISSN 0018-9286

Impakt faktor: 0.918, rok: 1996

 [DOI: 10.1109/9.481618](https://doi.org/10.1109/9.481618)

Citováno: 19

- HONG, L. - LAI, C.T. - KAU, S.W. - LEE, C.H. - FANG, C.H. Robust H-2 control analysis and design for continuous-time interval state-space systems. *JOURNAL OF THE CHINESE INSTITUTE OF ENGINEERS*. ISSN 0253-3839, MAR 2006, vol. 29, no. 2, p. 221-228. [WOS]
- KOWYNIA, J. An algorithm for checking Hurwitz stability of K-symmetrizable interval matrices. *CONTROL AND CYBERNETICS*. ISSN 0324-8569, 2005, vol. 34, no. 2, p. 477-486. [WOS]
- MAO, W.J. - CHU, J. Robust D-stability and D-stabilization of dynamic interval systems. *INTERNATIONAL JOURNAL OF CONTROL AUTOMATION AND SYSTEMS*. ISSN 1598-6446, OCT 2007, vol. 5, no. 5, p. 594-600. [WOS]
- ZHANG, D.Q. - ZHANG, Q.L. - CHEN, Y.P. Controllability and quadratic stability quadratic stabilization of discrete-time interval systems - an LMI approach. *IMA JOURNAL OF MATHEMATICAL CONTROL AND INFORMATION*. ISSN 0265-0754, DEC 2006, vol. 23, no. 4, p. 413-431. [WOS]
- LIU, W. Necessary and Sufficient Conditions for the Positive Definiteness and Stability of Symmetric Interval Matrices. *CCDC 2009: 21ST CHINESE CONTROL AND DECISION CONFERENCE, VOLS 1-6, PROCEEDINGS*. 2009, p. 4574-4579. [WOS]
- DZHAFAROV, V. - BUYUKKOROGLU, T. On nonsingularity of a polytope of matrices. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, SEP 1 2008, vol. 429, no. 5-6, p. 1174-1183. [WOS]
- LI, W. - TIAN, X.L. Numerical solution method for general interval quadratic programming. *APPLIED MATHEMATICS AND COMPUTATION*. ISSN 0096-3003, AUG 15 2008, vol. 202, no. 2, p. 589-595. [WOS]
- KOLEV, L.V. Determining the positive definiteness margin of interval matrices. *RELIABLE COMPUTING*. ISSN 1385-3139, DEC 2007, vol. 13, no. 6, p. 445-466. [WOS]
- GUO, S.X. - ZHANG, L. Robust reliability method for quadratic stability analysis and stabilization of dynamic interval systems. *2005 International Conference on Control and Automation (ICCA), Vols 1 and 2*. 2005, p. 789-793. [WOS]
- TSAI, J.S.H. - LU, C.Y. - SU, T.J. Robust Kalman filtering for delay-dependent interval systems. *INTERNATIONAL JOURNAL OF GENERAL SYSTEMS*. ISSN 0308-1079, AUG 2004, vol. 33, no. 4, p. 431-442. [WOS]
- MAO, W.J. - SU, H.Y. - CHU, J. On quadratic stability and stabilization of discrete-time interval systems. *PROCEEDINGS OF THE 2003 AMERICAN CONTROL CONFERENCE, VOLS 1-6*. ISSN 0743-1619, 2003, p. 5052-5057. [WOS]
- MAO, W.J. - CHU, J. Quadratic stability and stabilization of dynamic interval systems. *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*. ISSN 0018-9286, JUN 2003, vol. 48, no. 6, p. 1007-1012. [WOS]
- MAO, W.J. - CHU, J. On quadratic stability of dynamic interval systems. *PROCEEDINGS OF THE 2002 AMERICAN CONTROL CONFERENCE, VOLS 1-6*. ISSN 0743-1619, 2002, p. 3926-3930. [WOS]
- WANG, W.J. - YAN, S.F. Stability confidence for fuzzy matrices. *FUZZY SETS AND SYSTEMS*. ISSN 0165-0114, MAY 1 1999, vol. 103, no. 3, p. 507-511. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. Characterizing and approximating eigenvalue sets of

- symmetric interval matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, OCT 2011, vol. 62, no. 8, p. 3152-3163. [WOS]
- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]
- AKYAR, H. - BUYUKKOROGLU, T. - DZHAFAROV, V. On Stability of Parametrized Families of Polynomials and Matrices. ABSTRACT AND APPLIED ANALYSIS. ISSN 1085-3375, 2010. [WOS]
- AHN, H.S. - MOORE, K.L. - CHEN, Y. Iterative Learning Control Robustness and Monotonic Convergence for Interval Systems Introduction. ITERATIVE LEARNING CONTROL: ROBUSTNESS AND MONOTONIC CONVERGENCE FOR INTERVAL SYSTEMS. ISSN 0178-5354, 2007, p. 3-+. [WOS]
- CAI, G.B. - HU, C.H. - DUAN, G.R. EFFICIENT LMI-BASED QUADRATIC STABILITY AND STABILIZATION OF PARAMETER-DEPENDENT INTERVAL SYSTEMS WITH APPLICATIONS. INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL. ISSN 1349-4198, MAR 2012, vol. 8, no. 3A, p. 1943-1954. [WOS]

**Rohn, Jiří**

Enclosing Solutions of Overdetermined Systems of Linear Interval Equations.

*Reliable Computing*. Roč. 2, č. 2 (1996), s. 167-171. ISSN 1385-3139

[DOI: 10.1007/BF02425920](https://doi.org/10.1007/BF02425920)

Citováno: 2

- KRIVSKY, S. - LANG, B. Using interval arithmetic for determining the structure of convex hulls. NUMERICAL ALGORITHMS. ISSN 1017-1398, DEC 2004, vol. 37, no. 1-4, p. 233-240. [WOS]
- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]

**Rohn, Jiří - Rex, G.**

Interval P-Matrices.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 17, č. 4 (1996), s. 1020-1024.

ISSN 0895-4798

Impakt faktor: 0.713, rok: 1996

[DOI: 10.1137/0617062](https://doi.org/10.1137/0617062)

Citováno: 6

- Szulc T. Testing Some Properties of Real Matrices. Computers & Mathematics with Applications, 1996, vol. 31, p. 63-65 [WOS]
- GRIFFIN, K. - TSATSOMEROS, M.J. Principal minors, Part I: A method for computing all the principal minors of a matrix. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 1 2006, vol. 419, no. 1, p. 107-124. [WOS]
- DA COSTA, A.P. - MARTINS, J.A.C. The evolution and rate problems and the computation of all possible evolutions in quasi-static frictional contact. COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING. ISSN 0045-7825, 2003, vol. 192, no. 26-27, p. 2791-2821. [WOS]
- ELSNER, L. - MONOV, V. - SZULC, T. On some properties of convex matrix sets characterized by P-matrices and block P-matrices. LINEAR & MULTILINEAR ALGEBRA. ISSN 0308-1087, 2002, vol. 50, no. 3, p. 199-218. [WOS]
- ESCHENBACH, C.A. - HALL, F.J. - LI, Z.S. Eigenvalue distribution of certain ray patterns.

CZECHOSLOVAK MATHEMATICAL JOURNAL. ISSN 0011-4642, 2000, vol. 50, no. 4, p. 749-762.

[WOS]

--- SONG, Y. - GOWDA, M.S. - RAVINDRAN, G. On some properties of P-matrix sets. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 15 1999, vol. 290, no. 1-3, p. 237-246.

[WOS]

**Rohn, Jiří**

Linear Interval Equations: Computing Enclosures with Bounded Relative Overestimation is NP-Hard.

*Applications of Interval Computations*. Dordrecht : Kluwer Academic Publishers, 1996 -

(Kearfott, R.; Kreinovich, V.) s. 81-89. ISBN 0-7923-38472. - (Applied Optimization. 3).

[APIC'95. El Paso (US), 23.02.1995-25.02.1995]

Citováno: 1

--- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]

**Rohn, Jiří**

Bounds on Eigenvalues of Interval Matrices.

Prague : ICS AS CR, 1996. 8 s. - (Technical Report, V-688)

Citováno: 2

--- MEYER, C.A. - FLOUDAS, C.A. Convex underestimation of twice continuously differentiable functions by piecewise quadratic perturbation: Spline alpha BB underestimators. JOURNAL OF GLOBAL OPTIMIZATION. ISSN 0925-5001, JUN 2005, vol. 32, no. 2, p. 221-258. [WOS]

--- ADJIMAN, C.S. - DALLWIG, S. - FLOUDAS, C.A. - NEUMAIER, A. A global optimization method, alpha BB, for general twice-differentiable constrained NLPs - I. Theoretical advances. COMPUTERS & CHEMICAL ENGINEERING. ISSN 0098-1354, 1998, vol. 22, no. 9, p. 1137-1158. [WOS]

**Rohn, Jiří - Rex, G.**

Enclosing Solutions of Linear Equations.

Prague : ICS AS CR, 1996. 18 s. - (Technical Report, V-666)

Citováno: 2

--- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Structural design of uncertain mechanical systems using interval arithmetic. RECENT ADVANCES IN INTEGRATED DESIGN AND MANUFACTURING IN MECHANICAL ENGINEERING. 2003, p. 443-452. [WOS]

--- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Analysis of mechanical systems using interval computations applied to finite element methods. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, FEB 1 2001, vol. 239, no. 5, p. 949-968. [WOS]

**Rohn, Jiří**

Checking Properties of Interval Matrices.

Prague : ICS AS CR, 1996. 36 s. - (Technical Report, V-686)

Citováno: 6

- DEHGHAN, M. - HASHEMI, B. Determination of the degrees of P-property and nonnegative invertibility for a fuzzy matrix. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING. ISSN 0888-613X, SEP 2007, vol. 46, no. 1, p. 98-108. [WOS]
- DEHGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Structural design of uncertain mechanical systems using interval arithmetic. RECENT ADVANCES IN INTEGRATED DESIGN AND MANUFACTURING IN MECHANICAL ENGINEERING. 2003, p. 443-452. [WOS]
- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Analysis of mechanical systems using interval computations applied to finite element methods. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, FEB 1 2001, vol. 239, no. 5, p. 949-968. [WOS]
- NEDOMA, J. On solving vague systems of linear equations with pattern-shaped columns. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 107-118. [WOS]
- KOSTOUSOVA, E.K. On Polyhedral Estimates for Reachable Sets of Discrete-Time Systems with Bilinear Uncertainty. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, SEP 2011, vol. 72, no. 9, p. 1841-1851. [WOS]

## 1995

**Rohn, Jiří - Kreinovich, V.**

Computing Exact Componentwise Bounds on Solutions of Linear Systems with Interval Data is NP-Hard.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 16, - (1995), s. 415-420. ISSN 0895-4798

Impakt faktor: 0.653, rok: 1995

 [DOI: 10.1137/S0895479893251198](https://doi.org/10.1137/S0895479893251198)

Citováno: 21

- LIN, Y. - STADTHERR, M.A. Deterministic global optimization for parameter estimation of dynamic systems. INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH. ISSN 0888-5885, DEC 6 2006, vol. 45, no. 25, p. 8438-8448. [WOS]
- QIU, Z.P. - WANG, X.J. - CHEN, J.Y. Exact bounds for the static response set of structures with uncertain-but-bounded parameters. INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES. ISSN 0020-7683, OCT 2006, vol. 43, no. 21, p. 6574-6593. [WOS]
- LIN, Y.D. - STADTHERR, M.A. Deterministic global optimization of molecular structures using interval analysis. JOURNAL OF COMPUTATIONAL CHEMISTRY. ISSN 0192-8651, OCT 2005, vol. 26, no. 13, p. 1413-1420. [WOS]
- QIU, Z.P. - WANG, X.J. Several solution methods for the generalized complex eigenvalue problem with bounded uncertainties. INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES. ISSN 0020-7683, MAY 2005, vol. 42, no. 9-10, p. 2883-2900. [WOS]
- LIN, Y. - STADTHERR, M.A. Advances in interval methods for deterministic global optimization in chemical engineering. JOURNAL OF GLOBAL OPTIMIZATION. ISSN 0925-5001, JUL 2004, vol. 29, no. 3, p. 281-296. [WOS]
- KULPA, Z. - RADOMSKI, A. - GAJL, O. - KLEIBER, M. - SKALNA, I. Hybrid expert system for qualitative and quantitative analysis of truss structures. ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE. ISSN 0952-1976, APR 1999, vol. 12, no. 2, p. 229-240. [WOS]


- ALEFELD, G. - KOSHELEV, M. - MAYER, G. Why it is computationally harder to reconstruct the past than to predict the future. INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, AUG 1997, vol. 36, no. 8, p. 1683-1689. [WOS]
- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]
- BRIMKOV, V. - CODENOTTI, B. - LEONCINI, M. - RESTA, G. Strong NP-completeness of a matrix similarity problem. THEORETICAL COMPUTER SCIENCE. ISSN 0304-3975, OCT 10 1996, vol. 165, no. 2, p. 483-490. [WOS]
- BARON, I. - CODENOTTI, B. - LEONCINI, M. Checking robust nonsingularity of tridiagonal matrices in linear time. BIT. ISSN 0006-3835, JUN 1996, vol. 36, no. 2, p. 206-220. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]
- QIU, Z.P. - WANG, X.J. Vertex solution theorem for the upper and lower bounds on the dynamic response of structures with uncertain-but-bounded parameters. ACTA MECHANICA SINICA. ISSN 0567-7718, JUN 2009, vol. 25, no. 3, p. 367-379. [WOS]
- ASHCHEPKOV, L.T. Linear Interval Equations with Symmetric Solution Sets. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS. ISSN 0965-5425, APR 2008, vol. 48, no. 4, p. 531-538. [WOS]
- LIN, Y.D. - STADTHERR, M.A. Locating stationary points of sorbate-zeolite potential energy surfaces using interval analysis. JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, NOV 22 2004, vol. 121, no. 20, p. 10159-10166. [WOS]
- LIN, Y.D. - STADTHERR, M.A. LP strategy for the interval-Newton method in deterministic global optimization. INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH. ISSN 0888-5885, JUL 7 2004, vol. 43, no. 14, p. 3741-3749. [WOS]
- NEDOMA, J. Positively regular vague matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 15 2001, vol. 326, no. 1-3, p. 85-100. [WOS]
- BEAUMONT, O. Solving interval linear systems with linear programming techniques. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 15 1998, vol. 281, no. 1-3, p. 293-309. [WOS]
- HASHEMI, B. - DEGHAN, M. The interval Lyapunov matrix equation: Analytical results and an efficient numerical technique for outer estimation of the united solution set. MATHEMATICAL AND COMPUTER MODELLING. ISSN 0895-7177, FEB 2012, vol. 55, no. 3-4, p. 622-633. [WOS]
- SKALNA, I. - DUDA, J. A Comparison of Metaheuristics for the Problem of Solving Parametric Interval Linear Systems. NUMERICAL METHODS AND APPLICATIONS. ISSN 0302-9743, 2011, vol. 6046, p. 305-312. [WOS]
- SKALNA, I. A Global Optimization Method for Solving Parametric Linear Systems Whose Input Data Are Rational Functions of Interval Parameters. PARALLEL PROCESSING AND APPLIED MATHEMATICS, PART II. ISSN 0302-9743, 2010, vol. 6068, p. 475-484. [WOS]
- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. ACTA NUMERICA 2010, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

### **Rohn, Jiří**

Checking Bounds on Solutions of Linear Interval Equations is NP-Hard.

*Linear Algebra and Its Applications*. Roč. 223/224, - (1995), s. 589-596. ISSN 0024-3795

Impakt faktor: 0.405, rok: 1995

 [DOI: 10.1016/0024-3795\(94\)00219-4](https://doi.org/10.1016/0024-3795(94)00219-4)

Citováno: 3

--- CORSARO, S. - MARINO, M. Interval linear systems: the state of the art. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 365-384. [WOS]

--- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]

--- BEAUMONT, O. Solving interval linear systems with linear programming techniques. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 15 1998, vol. 281, no. 1-3, p. 293-309. [WOS]

**Rohn, Jiří**

Linear Interval Equations: Computing Sufficiently Accurate Enclosures in NP-Hard.

Prague : ICS AS CR, 1995. 7 s. - (Technical Report, V-621)

Citováno: 1

--- MUHANNA, R.L. - ZHANG, H. - MULLEN, R.L. Interval finite elements as a basis for generalized models of uncertainty in engineering mechanics. RELIABLE COMPUTING. ISSN 1385-3139, APR 2007, vol. 13, no. 2, p. 173-194. [WOS]

**Rohn, Jiří**

NP-Hardness Results for Some Linear and Quadratic Problems.

Prague : ICS AS CR, 1995. 11 s. - (Technical Report, V-619)

Citováno: 5

--- MRAZ, F. Calculating the exact bounds of optimal values in LP with interval coefficients. ANNALS OF OPERATIONS RESEARCH. ISSN 0254-5330, 1998, vol. 81, p. 51-62. [WOS]

--- PROKOPYEV, O.A. - BUTENKO, S. - TRAPP, A. Checking solvability of systems of interval linear equations and inequalities via mixed integer programming. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN 0377-2217, NOV 16 2009, vol. 199, no. 1, p. 117-121. [WOS]

--- HIGHAM, N.J. Computing the nearest correlation matrix - a problem from finance. IMA JOURNAL OF NUMERICAL ANALYSIS. ISSN 0272-4979, JUL 2002, vol. 22, no. 3, p. 329-343. [WOS]

--- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Analysis of mechanical systems using interval computations applied to finite element methods. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, FEB 1 2001, vol. 239, no. 5, p. 949-968. [WOS]

--- LI, W. - TIAN, X.L. Fault Detection in Discrete Dynamic Systems with Uncertainty Based on Interval Optimization. MATHEMATICAL MODELLING AND ANALYSIS. ISSN 1392-6292, 2011, vol. 16, no. 4, p. 549-557. [WOS]

**Rohn, Jiří**

Validated Solutions of Linear Equations.

Prague : ICS AS CR, 1995. 11 s. - (Technical Report, V-620)

Citováno: 2

--- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Structural design of uncertain mechanical systems using interval arithmetic. RECENT ADVANCES IN INTEGRATED DESIGN AND MANUFACTURING IN MECHANICAL ENGINEERING. 2003, p. 443-452. [WOS]

--- DESSOMBZ, O. - THOUVEREZ, F. - LAINE, J.P. - JEZEQUEL, L. Analysis of mechanical systems using

interval computations applied to finite element methods. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, FEB 1 2001, vol. 239, no. 5, p. 949-968. [WOS]

**Rohn, Jiří**

Enclosing Solutions of Linear Interval Equations is NP-hard.

*Computing*. Roč. 53 (1994), s. 365-368. ISSN 0010-485X

[DOI: 10.1007/BF02307386](https://doi.org/10.1007/BF02307386)

Citováno: 5

--- MEER, K. On the approximation of interval functions. APPLIED PARALLEL COMPUTING: STATE OF THE ART IN SCIENTIFIC COMPUTING. ISSN 0302-9743, 2006, vol. 3732, p. 169-178. [WOS]

--- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]

--- MEER, K. Complexity aspects of a semi-infinite optimization problem. OPTIMIZATION. ISSN 0233-1934, FEB 2008, vol. 57, no. 1, p. 143-152. [WOS]

--- HASHEMI, B. - DEHGHAN, M. The interval Lyapunov matrix equation: Analytical results and an efficient numerical technique for outer estimation of the united solution set. MATHEMATICAL AND COMPUTER MODELLING. ISSN 0895-7177, FEB 2012, vol. 55, no. 3-4, p. 622-633. [WOS]

--- HASHEMI, B. - DEHGHAN, M. Results concerning interval linear systems with multiple right-hand sides and the interval matrix equation  $AX = B$ . JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, MAR 1 2011, vol. 235, no. 9, p. 2969-2978. [WOS]

**1994**

**Rohn, Jiří - Kreslová, J.**

Linear interval inequalities.

*Linear & Multilinear Algebra*. Roč. 38, č. 1-2 (1994), s. 79-82. ISSN 0308-1087

[DOI: 10.1080/03081089508818341](https://doi.org/10.1080/03081089508818341)

Citováno: 3

--- HLADIK, M. Optimal value bounds in nonlinear programming with interval data. TOP. ISSN 1134-5764, JUL 2011, vol. 19, no. 1, p. 93-106. [WOS]

--- NOGHABI, A.S. - MASHHADI, H.R. - SADEH, J. Optimal Coordination of Directional Overcurrent Relays Considering Different Network Topologies Using Interval Linear Programming. IEEE TRANSACTIONS ON POWER DELIVERY. ISSN 0885-8977, JUL 2010, vol. 25, no. 3, p. 1348-1354. [WOS]

--- RATSCHAN, S. - SHE, Z.K. PROVIDING A BASIN OF ATTRACTION TO A TARGET REGION OF POLYNOMIAL SYSTEMS BY COMPUTATION OF LYAPUNOV-LIKE FUNCTIONS. SIAM JOURNAL ON CONTROL AND OPTIMIZATION. ISSN 0363-0129, 2010, vol. 48, no. 7, p. 4377-4394. [WOS]

**Rohn, Jiří - Deif, A.**

On the invariance of the sign pattern of matrix eigenvectors under perturbation.

*Linear Algebra and Its Applications*. Roč. 196 (1994), s. 63-70. ISSN 0024-3795

Impakt faktor: 0.430, rok: 1994

[DOI: 10.1016/0024-3795\(94\)90315-8](https://doi.org/10.1016/0024-3795(94)90315-8)



Citováno: 5

- GIOIA, F. - LAURO, C.N. Principal component analysis on interval data. COMPUTATIONAL STATISTICS. ISSN 0943-4062, 2006, vol. 21, no. 2, p. 343-363. [WOS]
- GABRIELE, S. - VALENTE, C. - BRANCALEONI, F. Interval analysis for updating FEM parameters using uncertain experimental data. Proceedings of ISMA 2004: International Conference on Noise and Vibration Engineering, Vols 1-8. 2005, p. 3065-3077. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. Characterizing and approximating eigenvalue sets of symmetric interval matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, OCT 2011, vol. 62, no. 8, p. 3152-3163. [WOS]
- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]
- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]

### **Rohn, Jiří**

Positive definiteness and stability of interval matrices.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 15, č. 1 (1994), s. 175-184. ISSN 0895-4798  
 Impakt faktor: 1.000, rok: 1994

 [DOI: 10.1137/S0895479891219216](https://doi.org/10.1137/S0895479891219216)

Citováno: 41

- CHEN, Y.Q. - AHN, H.S. - XUE, D.Y. Robust controllability of interval fractional order linear time invariant systems. SIGNAL PROCESSING. ISSN 0165-1684, OCT 2006, vol. 86, no. 10, p. 2794-2802. [WOS]
- HLAVACEK, I. - NEDOMA, J. - DANEK, J. Worst scenario and domain decomposition methods in geomechanics. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF GRID COMPUTING THEORY METHODS AND APPLICATIONS. ISSN 0167-739X, MAR 2006, vol. 22, no. 4, p. 468-483. [WOS]
- KOWYNIA, J. An algorithm for checking Hurwitz stability of K-symmetrizable interval matrices. CONTROL AND CYBERNETICS. ISSN 0324-8569, 2005, vol. 34, no. 2, p. 477-486. [WOS]
- HLAVACEK, I. - LOVISEK, J. Semi-coercive variational inequalities with uncertain input data. Applications to shallow shells. MATHEMATICAL MODELS & METHODS IN APPLIED SCIENCES. ISSN 0218-2025, FEB 2005, vol. 15, no. 2, p. 273-299. [WOS]
- HLAVACEK, I. - NEDOMA, J. Reliable solution of an unilateral contact problem with friction and uncertain data in thermo-elasticity. MATHEMATICS AND COMPUTERS IN SIMULATION. ISSN 0378-4754, JAN 3 2005, vol. 67, no. 6, p. 559-580. [WOS]
- HLAVACEK, I. Unilateral contact with Coulomb friction and uncertain input data. NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION. ISSN 0163-0563, AUG-SEP 2003, vol. 24, no. 5-6, p. 509-530. [WOS]
- HLAVACEK, I. - NEDOMA, J. Reliable solution of a unilateral frictionless contact problem in quasi-coupled thermo-elasticity with uncertain input data. COMPUTATIONAL SCIENCE-ICCS 2002, PT III, PROCEEDINGS. ISSN 0302-9743, 2002, vol. 2331, p. 840-851. [WOS]
- YAMAC, K. - BOZKURT, D. An algorithm for stability of discrete-time interval matrices. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, JUL 1 2003, vol. 139, no. 1, p. 121-131. [WOS]
- HLAVACEK, I. Worst scenario approach for elastoplasticity with hardening and uncertain input

- data. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2002, vol. 82, no. 10, p. 671-684. [WOS]
- HLAVACEK, I. Reliable solution in strain space of elastoplastic problems with isotropic hardening and uncertain data. MATHEMATICAL MODELS & METHODS IN APPLIED SCIENCES. ISSN 0218-2025, SEP 2002, vol. 12, no. 9, p. 1337-1357. [WOS]
- ZHAO, W.R. - LIN, W. - LIU, R.S. - RUAN, J. Asymptotical stability in discrete-time neural networks. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-FUNDAMENTAL THEORY AND APPLICATIONS. ISSN 1057-7122, OCT 2002, vol. 49, no. 10, p. 1516-1520. [WOS]
- HLAVACEK, I. Reliable solution of a perfect plastic problem with uncertain stress-strain law and yield function. SIAM JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, JAN 14 2002, vol. 39, no. 5, p. 1539-1555. [WOS]
- BLONDEL, V.D. - TSITSIKLIS, J.N. A survey of computational complexity results in systems and control. AUTOMATICA. ISSN 0005-1098, SEP 2000, vol. 36, no. 9, p. 1249-1274. [WOS]
- BENTBIB, A.H. Conjugate directions method for solving interval linear systems. NUMERICAL ALGORITHMS. ISSN 1017-1398, 1999, vol. 21, no. 1-4, p. 79-86. [WOS]
- SILJAK, D.D. - SILJAK, M.D. Nonnegativity of uncertain polynomials. MATHEMATICAL PROBLEMS IN ENGINEERING. ISSN 1024-123X, 1998, vol. 4, no. 2, p. 135-163. [WOS]
- MORI, T. - KOKAME, H. An extension of a class of systems that have a common Lyapunov function. IEICE TRANSACTIONS ON FUNDAMENTALS OF ELECTRONICS COMMUNICATIONS AND COMPUTER SCIENCES. ISSN 0916-8508, AUG 1997, vol. E80A, no. 8, p. 1522-1524. [WOS]
- SZULC, T. Testing some properties of real matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, FEB-MAR 1996, vol. 31, no. 4-5, p. 63-65. [WOS]
- AHN, H.S. - CHEN, Y. Exact maximum singular value calculation of an interval matrix. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAR 2007, vol. 52, no. 3, p. 510-514. [WOS]
- LIU, W. Necessary and Sufficient Conditions for the Positive Definiteness and Stability of Symmetric Interval Matrices. CDC 2009: 21ST CHINESE CONTROL AND DECISION CONFERENCE, VOLS 1-6, PROCEEDINGS. 2009, p. 4574-4579. [WOS]
- RAUH, A. - MINISINI, J. - HOFER, E.P. VERIFICATION TECHNIQUES FOR SENSITIVITY ANALYSIS AND DESIGN OF CONTROLLERS FOR NONLINEAR DYNAMIC SYSTEMS WITH UNCERTAINTIES. INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE. ISSN 1641-876X, SEP 2009, vol. 19, no. 3, p. 425-439. [WOS]
- KHLEBNIKOV, M.V. - SHCHERBAKOV, P.S. Petersen's Lemma on Matrix Uncertainty and Its Generalizations. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, NOV 2008, vol. 69, no. 11, p. 1932-1945. [WOS]
- SHIH, M.H. - PANG, C.T. Simultaneous Schur stability of interval matrices. AUTOMATICA. ISSN 0005-1098, OCT 2008, vol. 44, no. 10, p. 2621-2627. [WOS]
- CALAFIORE, G. - DABBENE, F. Reduced vertex set result for interval semidefinite optimization problems. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, OCT 2008, vol. 139, no. 1, p. 17-33. [WOS]
- DZHAFAROV, V. - BUYUKKOROGLU, T. On nonsingularity of a polytope of matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 1 2008, vol. 429, no. 5-6, p. 1174-1183. [WOS]
- KOLEV, L.V. Determining the positive definiteness margin of interval matrices. RELIABLE COMPUTING. ISSN 1385-3139, DEC 2007, vol. 13, no. 6, p. 445-466. [WOS]
- AHN, H.S. - MOORE, K.L. - CHEN, Y.Q. Linear independency of interval vectors and its applications to robust controllability tests. 2005 44th IEEE Conference on Decision and Control & European Control Conference, Vols 1-8. ISSN 0191-2216, 2005, p. 8070-8075. [WOS]
- AHN, H.S. - CHEN, Y.Q. - MOORE, K.L. Maximum singular value and power of an interval matrix.

- IEEE ICMA 2006: Proceeding of the 2006 IEEE International Conference on Mechatronics and Automation, Vols 1-3, Proceedings. 2006, p. 678-683. [WOS]
- CHEN, Y. - AHN, H.S. - XUE, D.Y. Robust controllability of interval fractional order linear time invariant systems. PROCEEDINGS OF THE ASME INTERNATIONAL DESIGN ENGINEERING TECHNICAL CONFERENCES AND COMPUTERS AND INFORMATION IN ENGINEERING CONFERENCE, VOL 6, PTS A-C. 2005, p. 1537-1545. [WOS]
- AHN, H.S. - CHEN, Y.Q. Sufficient conditions for linear dependency and independency of interval vectors. Proceedings of the 8th Joint Conference on Information Sciences, Vols 1-3. 2005, p. 253-256. [WOS]
- NAIMARK, L. - ZEHEB, E. An extension of the Levy-Desplanque theorem and some stability conditions for matrices with uncertain entries. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-FUNDAMENTAL THEORY AND APPLICATIONS. ISSN 1057-7122, FEB 1997, vol. 44, no. 2, p. 167-170. [WOS]
- HOU, X.R. - SHAO, J.W. Spherical Distribution of 5 Points with Maximal Distance Sum. DISCRETE & COMPUTATIONAL GEOMETRY. ISSN 0179-5376, JUL 2011, vol. 46, no. 1, p. 156-174. [WOS]
- DUMAN, A. - AYDIN, K. Sensitivity of Schur stability of monodromy matrix. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, APR 1 2011, vol. 217, no. 15, p. 6663-6670. [WOS]
- AHN, H.S. Powers of parametric interval uncertain matrix. IET CONTROL THEORY AND APPLICATIONS. ISSN 1751-8644, FEB 2011, vol. 5, no. 3, p. 523-534. [WOS]
- MONNIGMANN, M. FAST CALCULATION OF SPECTRAL BOUNDS FOR HESSIAN MATRICES ON HYPERRECTANGLES. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2011, vol. 32, no. 4, p. 1351-1366. [WOS]
- ASCHEMANN, H. - MINISINI, J. - RAUH, A. Interval arithmetic techniques for the design of controllers for nonlinear dynamical systems with applications in mechatronics. JOURNAL OF COMPUTER AND SYSTEMS SCIENCES INTERNATIONAL. ISSN 1064-2307, OCT 2010, vol. 49, no. 5, p. 683-695. [WOS]
- SHAO, J.W. - HOU, X.R. Positive definiteness of Hermitian interval matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2010, vol. 432, no. 4, SI, p. 970-979. [WOS]
- WILCZAK, D. - ZGLICZYNSKI, P. Computer assisted proof of the existence of homoclinic tangency for the Henon map and for the forced-damped pendulum. SIAM JOURNAL ON APPLIED DYNAMICAL SYSTEMS. ISSN 1536-0040, 2009, vol. 8, no. 4, p. 1632-1663. [WOS]
- AHN, H.S. - MOORE, K.L. - CHEN, Y. Iterative Learning Control Robustness and Monotonic Convergence for Interval Systems Introduction. ITERATIVE LEARNING CONTROL: ROBUSTNESS AND MONOTONIC CONVERGENCE FOR INTERVAL SYSTEMS. ISSN 0178-5354, 2007, p. 3-+. [WOS]
- AHN, H.S. - KIM, Y.S. - CHEN, Y. An interval Kalman filtering with minimal conservatism. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, MAY 15 2012, vol. 218, no. 18, p. 9563-9570. [WOS]
- GARLOFF, J. Pivot tightening for direct methods for solving symmetric positive definite systems of linear interval equations. COMPUTING. ISSN 0010-485X, MAR 2012, vol. 94, no. 2-4, SI, p. 97-107. [WOS]
- RAUH, A. - AUER, E. - DOTSCHEL, T. - ASCHEMANN, H. Verified stability analysis of continuous-time control systems with bounded parameter uncertainties and stochastic disturbances. COMPUTING. ISSN 0010-485X, MAR 2012, vol. 94, no. 2-4, SI, p. 345-356. [WOS]

### **Rohn, Jiří**

Checking positive definiteness or stability of symmetric interval matrices is NP-hard.  
*Commentationes Mathematicae Universitatis Carolinae*. Roč. 35, č. 4 (1994), s. 795-797.

ISSN 0010-2628

<http://dml.cz/handle/10338.dmlcz/118721>

Citováno: 12

- RUMP, S.M. Verification of positive definiteness. BIT NUMERICAL MATHEMATICS. ISSN 0006-3835, JUN 2006, vol. 46, no. 2, p. 433-452. [WOS]
- BLONDEL, V.D. - TSITSIKLIS, J.N. A survey of computational complexity results in systems and control. AUTOMATICA. ISSN 0005-1098, SEP 2000, vol. 36, no. 9, p. 1249-1274. [WOS]
- ELGRICHI, Y. - ZEHEB, E. Stability of multichannel sound control systems. IEE PROCEEDINGS-VISION IMAGE AND SIGNAL PROCESSING. ISSN 1350-245X, FEB 1997, vol. 144, no. 1, p. 1-7. [WOS]
- NAIMARK, L. - ZEHEB, E. An extension of the Levy-Desplanque theorem and some stability conditions for matrices with uncertain entries. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-FUNDAMENTAL THEORY AND APPLICATIONS. ISSN 1057-7122, FEB 1997, vol. 44, no. 2, p. 167-170. [WOS]
- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]
- LIU, W. Necessary and Sufficient Conditions for the Positive Definiteness and Stability of Symmetric Interval Matrices. CDC 2009: 21ST CHINESE CONTROL AND DECISION CONFERENCE, VOLS 1-6, PROCEEDINGS. 2009, p. 4574-4579. [WOS]
- KOLEV, L. 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. ISSN 0332-1649, 2008, vol. 27, no. 6, p. 1463-1480. [WOS]
- CALAFIORE, G. - DABBENE, F. Reduced vertex set result for interval semidefinite optimization problems. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, OCT 2008, vol. 139, no. 1, p. 17-33. [WOS]
- KOLEV, L.V. Determining the positive definiteness margin of interval matrices. RELIABLE COMPUTING. ISSN 1385-3139, DEC 2007, vol. 13, no. 6, p. 445-466. [WOS]
- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]
- SHAO, J.W. - HOU, X.R. Positive definiteness of Hermitian interval matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2010, vol. 432, no. 4, p. 970-979. [WOS]
- MAHAJAN, M. - SARMA, J.M.N. On the Complexity of Matrix Rank and Rigidity. THEORY OF COMPUTING SYSTEMS. ISSN 1432-4350, JAN 2010, vol. 46, no. 1, p. 9-26. [WOS]

### Rohn, Jiří

NP-Hardness Results for Linear Algebraic Problems with Interval Data.

*Topics in Validated Computations*. Amsterdam : NorthHolland, 1994 - (Herzberger, J.) s. 463-471. - (Studies in Computational Mathematics. 5).

[IMACS-GAMM international workshop on validated computation. Oldenburg (DD), 30.08.1993-03.09.1993]

Citováno: 8

- FUSIELLO, A. - FARENZENA, M. - BUSTI, A. - BENEDETTI, A. Computing rigorous bounds to the accuracy of calibrated stereo reconstruction. IEE PROCEEDINGS-VISION IMAGE AND SIGNAL PROCESSING. ISSN 1350-245X, DEC 2005, vol. 152, no. 6, p. 695-701. [WOS]
- RUMP, S.M. Perron-Frobenius theory for complex matrices. LINEAR ALGEBRA AND ITS

- APPLICATIONS. ISSN 0024-3795, APR 1 2003, vol. 363, p. 251-273. [WOS]  
--- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]  
--- JANSSON, C. A verification algorithm for symmetric systems with interval data. ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1996, vol. 76, p. 267-270. [WOS]  
--- NING, S. - KEARFOTT, R.B. A comparison of some methods for solving linear interval equations. SIAM JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, AUG 1997, vol. 34, no. 4, p. 1289-1305. [WOS]  
--- FARENZENA, M. - BUSTI, A. - FUSIELLO, A. - BENEDETTI, A. Rigorous accuracy bounds for calibrated stereo reconstruction. PROCEEDINGS OF THE 17TH INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION, VOL 4. ISSN 1051-4651, 2004, p. 288-292. [WOS]  
--- BEAUMONT, O. Solving interval linear systems with linear programming techniques. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 15 1998, vol. 281, no. 1-3, p. 293-309. [WOS]  
--- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. ACTA NUMERICA 2010, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

**Rohn, Jiří - Rex, G.**

Interval P-Matrices.

Prague : ICS AS CR, 1994. 6 s. - (Technical Report, V-618)

Citováno: 1

- DEHGHAN, M. - HASHEMI, B. Determination of the degrees of P-property and nonnegative invertibility for a fuzzy matrix. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING. ISSN 0888-613X, SEP 2007, vol. 46, no. 1, p. 98-108. [WOS]

## 1993

**Rohn, Jiří**

A Note on Solvability of a Class of Linear Complementarity Problems.

*Mathematical Programming*. Roč. 60, č. 2 (1993), s. 229-231. ISSN 0025-5610

Impakt faktor: 0.888, rok: 1993

 [DOI: 10.1007/BF01580611](https://doi.org/10.1007/BF01580611)


Citováno: 1

- FLORES, P. - LEINE, R. - GLOCKER, C. Modeling and analysis of planar rigid multibody systems with translational clearance joints based on the non-smooth dynamics approach. MULTIBODY SYSTEM DYNAMICS. ISSN 1384-5640, FEB 2010, vol. 23, no. 2, p. 165-190. [WOS]

**Poljak, S. - Rohn, Jiří**

Checking Robust Nonsingularity is NP-Hard.

*Mathematics of Control Signals and Systems*. Roč. 6, č. 1 (1993), s. 1-9. ISSN 0932-4194

 [DOI: 10.1007/BF01213466](https://doi.org/10.1007/BF01213466)

Citováno: 91

- DZHAFAROV, V. - BUYUKKOROGLU, T. On the stability of a convex set of matrices. LINEAR

- ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, APR 15 2006, vol. 414, no. 2-3, p. 547-559. [WOS]
- AL-SHAMALI, S.A. - JI, B.W. - CRISALLE, O.D. - LATCHMAN, H.A. The Nyquist robust sensitivity margin for uncertain closed-loop systems. INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL. ISSN 1049-8923, SEP 25 2005, vol. 15, no. 14, p. 619-634. [WOS]
- CECHLAROVA, K. Eigenvectors of interval matrices over max-plus algebra. DISCRETE APPLIED MATHEMATICS. ISSN 0166-218X, SEP 1 2005, vol. 150, no. 1-3, p. 2-15. [WOS]
- RUMP, S.M. On P-matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, APR 1 2003, vol. 363, p. 237-250. [WOS]
- COHEN, N. - LEWKOWICZ, L. A pair of matrices sharing common Lyapunov solutions - A closer look. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2003, vol. 360, p. 83-104. [WOS]
- ABDALLAH, C.T. - ARIOLA, M. - DORATO, P. - KOLTCHINSKII, V. Quantified inequalities and robust control. ROBUSTNESS IN IDENTIFICATION AND CONTROL. ISSN 0170-8643, 1999, vol. 245, p. 373-390. [WOS]
- VIDYASAGAR, M. Randomized algorithms for robust controller synthesis using statistical learning theory. LEARNING, CONTROL AND HYBRID SYSTEMS. ISSN 0170-8643, 1999, vol. 241, p. 3-24. [WOS]
- KHARGONEKAR, P.P. - TIKKU, A. Probabilistic search algorithms for robust stability analysis and their complexity properties. LEARNING, CONTROL AND HYBRID SYSTEMS. ISSN 0170-8643, 1999, vol. 241, p. 25-45. [WOS]
- BAR-ON, I. - LEONCINI, M. Stable solution of tridiagonal systems. NUMERICAL ALGORITHMS. ISSN 1017-1398, 1998, vol. 18, no. 3-4, p. 361-388. [WOS]
- VIDYASAGAR, M. Statistical learning theory and randomized algorithms for control. IEEE CONTROL SYSTEMS MAGAZINE. ISSN 0272-1708, DEC 1998, vol. 18, no. 6, p. 69-85. [WOS]
- BAI, E.W. - TEMPO, R. - FU, M.Y. Worst-case properties of the uniform distribution and randomized algorithms for robustness analysis. MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS. ISSN 0932-4194, 1998, vol. 11, no. 3, p. 183-196. [WOS]
- TOKER, O. - CHEN, J. On computational complexity of invalidating structured uncertainty models. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, MAR 16 1998, vol. 33, no. 3, p. 199-207. [WOS]
- WEN, C. - FONG, I.K. H-infinity-norm performance robustness analysis of a linear parametric uncertain system. JOURNAL OF THE CHINESE INSTITUTE OF ENGINEERS. ISSN 0253-3839, MAR 1998, vol. 21, no. 2, p. 203-209. [WOS]
- TOKER, O. - OZBAY, H. Complexity issues in robust stability of linear delay-differential systems. MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS. ISSN 0932-4194, 1996, vol. 9, no. 4, p. 386-400. [WOS]
- BARON, I. - CODENOTTI, B. - LEONCINI, M. Checking robust nonsingularity of tridiagonal matrices in linear time. BIT. ISSN 0006-3835, JUN 1996, vol. 36, no. 2, p. 206-220. [WOS]
- COXSON, G.E. - DEMARCO, C.L. THE COMPUTATIONAL-COMPLEXITY OF APPROXIMATING THE MINIMAL PERTURBATION SCALING TO ACHIEVE INSTABILITY IN AN INTERVAL MATRIX. MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS. ISSN 0932-4194, 1994, vol. 7, no. 4, p. 279-291. [WOS]
- NEMIROVSKII, A. SEVERAL NP-HARD PROBLEMS ARISING IN ROBUST STABILITY ANALYSIS. MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS. ISSN 0932-4194, 1993, vol. 6, no. 2, p. 99-105. [WOS]
- COXSON, G.E. THE P-MATRIX PROBLEM IS CO-NP-COMPLETE. MATHEMATICAL PROGRAMMING. ISSN 0025-5610, APR 15 1994, vol. 64, no. 2, p. 173-178. [WOS]
- BRAATZ, R.P. - YOUNG, P.M. - DOYLE, J.C. - MORARI, M. COMPUTATIONAL-COMPLEXITY OF MU-

- CALCULATION. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAY 1994, vol. 39, no. 5, p. 1000-1002. [WOS]
- CHEN, X.J. - ZHOU, K.M. Fast parallel-frequency-sweeping algorithms for robust D-stability margin. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-FUNDAMENTAL THEORY AND APPLICATIONS. ISSN 1057-7122, MAR 2003, vol. 50, no. 3, p. 418-428. [WOS]
- NEWLIN, M.P. - YOUNG, P.M. Mixed mu problems and branch and bound technique. INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL. ISSN 1049-8923, FEB 1997, vol. 7, no. 2, p. 145-164. [WOS]
- WAINBERG, B.I. - WOERDEMAN, H.J. The maximum row length nonsingularity radius. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 1 1996, vol. 247, p. 251-263. [WOS]
- YOUNG, P.M. Controller design with real parametric uncertainty. INTERNATIONAL JOURNAL OF CONTROL. ISSN 0020-7179, OCT 1996, vol. 65, no. 3, p. 469-509. [WOS]
- YOUNG, P.M. - DOYLE, J.C. Properties of the mixed mu problem and its bounds. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, JAN 1996, vol. 41, no. 1, p. 155-159. [WOS]
- YOUNG, P.M. - NEWLIN, M.P. - DOYLE, J.C. COMPUTING BOUNDS FOR THE MIXED-MU-PROBLEM. INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL. ISSN 1049-8923, OCT 1995, vol. 5, no. 6, p. 573-590. [WOS]
- BARMISH, B.R. - KANG, H.I. A SURVEY OF EXTREME POINT RESULTS FOR ROBUSTNESS OF CONTROL-SYSTEMS. AUTOMATICA. ISSN 0005-1098, JAN 1993, vol. 29, no. 1, p. 13-35. [WOS]
- TEMPO, R. - ISHII, H. Monte Carlo and Las Vegas randomized algorithms for systems and control - An introduction. EUROPEAN JOURNAL OF CONTROL. ISSN 0947-3580, MAR-JUN 2007, vol. 13, no. 2-3, p. 189-203. [WOS]
- CALAFIORE, G. - DABBENE, F. - TEMPO, R. A survey of randomized algorithms for control synthesis and performance verification. JOURNAL OF COMPLEXITY. ISSN 0885-064X, JUN 2007, vol. 23, no. 3, p. 301-316. [WOS]
- ROSS, S.R. - BARMISH, B.R. On distributional robustness of systems with complex uncertainty. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, JUL 2007, vol. 56, no. 7-8, p. 546-557. [WOS]
- KAROW, M. - KOKIOPOULOU, E. - KRESSNER, D. On the computation of structured singular values and pseudospectra. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, FEB 2010, vol. 59, no. 2, p. 122-129. [WOS]
- MAHAJAN, M. - SARMA, J.M.N. On the Complexity of Matrix Rank and Rigidity. THEORY OF COMPUTING SYSTEMS. ISSN 1432-4350, JAN 2010, vol. 46, no. 1, Sp. Iss. SI, p. 9-26. [WOS]
- GURVITS, L. - OLSHEVSKY, A. On the NP-Hardness of Checking Matrix Polytope Stability and Continuous-Time Switching Stability. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, FEB 2009, vol. 54, no. 2, p. 337-341. [WOS]
- ASHCHEPKOV, L.T. Linear Interval Equations with Symmetric Solution Sets. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS. ISSN 0965-5425, APR 2008, vol. 48, no. 4, p. 531-538. [WOS]
- ROTH, R.M. - VISWANATHAN, K. On the hardness of decoding the Gale-Berlekamp code. 2007 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY PROCEEDINGS, VOLS 1-7. 2007, p. 1356-1360. [WOS]
- ALAMO, T. - TEMPO, R. - RAMIREZ, D.R. - CAMACHO, E.F. A new vertex result for robustness problems with interval matrix uncertainty. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, JUN 2008, vol. 57, no. 6, p. 474-481. [WOS]
- ROTH, R.M. - VISWANATHAN, K. Kin the hardness of decoding the Gale-Berlekamp code. IEEE TRANSACTIONS ON INFORMATION THEORY. ISSN 0018-9448, MAR 2008, vol. 54, no. 3, p. 1050-1060. [WOS]
- MAHAJAN, M. - SARMA, J.M.N. On the complexity of matrix rank and rigidity. Computer Science

- Theory and Applications. ISSN 0302-9743, 2007, vol. 4649, p. 269-280. [WOS]
- CHEN, S.J. - LIN, J.L. Robust D-stability of discrete and continuous time interval systems. JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS. ISSN 0016-0032, SEP 2004, vol. 341, no. 6, p. 505-517. [WOS]
- MALYSHEV, A.N. - SADKANE, M. Componentwise pseudospectrum of a matrix. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2004, vol. 378, p. 283-288. [WOS]
- WANG, L. - WANG, Z.Z. - YU, W.S. - ZHANG, L. Edge theorem for MIMO systems. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-FUNDAMENTAL THEORY AND APPLICATIONS. ISSN 1057-7122, DEC 2003, vol. 50, no. 12, p. 1577-1580. [WOS]
- RUMP, S.M. Optimal scaling for p-norms and componentwise distance to singularity. IMA JOURNAL OF NUMERICAL ANALYSIS. ISSN 0272-4979, JAN 2003, vol. 23, no. 1, p. 1-9. [WOS]
- HWANG, C. - YANG, S.F. The robust root locus of polynomial families with multilinear parameter dependence. PROCEEDINGS OF THE 2001 IEEE INTERNATIONAL CONFERENCE ON CONTROL APPLICATIONS (CCA'01). 2001, p. 847-852. [WOS]
- ROSS, S.R. - BARMISH, B.R. Distributionally robust gain analysis for systems containing complex uncertainty. PROCEEDINGS OF THE 40TH IEEE CONFERENCE ON DECISION AND CONTROL, VOLS 1-5. ISSN 0191-2216, 2001, p. 5020-5025. [WOS]
- EL GHAOU, L. Inversion error, condition number, and approximate inverses of uncertain matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 1 2002, vol. 343, p. 171-193. [WOS]
- REX, G. - KUPFERSCHMIDT, J. What is the radius of singularity of a real matrix ?. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2001, vol. 81, p. S985-S986. [WOS]
- VIDYASAGAR, M. Randomized algorithms for robust controller synthesis using statistical learning theory: A tutorial overview. EUROPEAN JOURNAL OF CONTROL. ISSN 0947-3580, 2001, vol. 7, no. 2-3, p. 287-310. [WOS]
- MA, D.L. - BRAATZ, R.D. Worst-case analysis of finite-time control policies. IEEE TRANSACTIONS ON CONTROL SYSTEMS TECHNOLOGY. ISSN 1063-6536, SEP 2001, vol. 9, no. 5, p. 766-774. [WOS]
- VIDYASAGAR, M. Randomized algorithms for robust controller synthesis using statistical learning theory. AUTOMATICA. ISSN 0005-1098, OCT 2001, vol. 37, no. 10, p. 1515-1528. [WOS]
- VIDYASAGAR, M. - BLONDEL, V.D. Probabilistic solutions to some NP-hard matrix problems. AUTOMATICA. ISSN 0005-1098, SEP 2001, vol. 37, no. 9, p. 1397-1405. [WOS]
- YOUNG, P.M. Structured singular value approach for systems with parametric uncertainty. INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL. ISSN 1049-8923, JUN 2001, vol. 11, no. 7, p. 653-680. [WOS]
- JACOBS, D.W. Linear fitting with missing data for structure-from-motion. COMPUTER VISION AND IMAGE UNDERSTANDING. ISSN 1077-3142, APR 2001, vol. 82, no. 1, p. 57-81. [WOS]
- NEDOMA, J. Positively regular vague matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 15 2001, vol. 326, no. 1-3, p. 85-100. [WOS]
- NEDOMA, J. On solving vague systems of linear equations with pattern-shaped columns. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 107-118. [WOS]
- BLONDEL, V.D. - TSITSIKLIS, J.N. The boundedness of all products of a pair of matrices is undecidable. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, OCT 9 2000, vol. 41, no. 2, p. 135-140. [WOS]
- FU, M.Y. - DASGUPTA, S. Computational complexity of real structured singular value in  $l(p)$  setting. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, NOV 2000, vol. 45, no. 11, p. 2173-2176. [WOS]
- BAR-ON, I. - LEONCINI, M. Reliable solution of tridiagonal systems of linear equations. SIAM



- JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, NOV 10 2000, vol. 38, no. 4, p. 1134-1153. [WOS]
- COHEN, N. - LEWKOWICZ, I. A characterization of convex cones of matrices with constant regular inertia. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, OCT 15 2000, vol. 318, no. 1-3, p. 23-33. [WOS]
- BLONDEL, V.D. - TSITSIKLIS, J.N. A survey of computational complexity results in systems and control. AUTOMATICA. ISSN 0005-1098, SEP 2000, vol. 36, no. 9, p. 1249-1274. [WOS]
- HARDING, S.T. - FLOUDAS, C.A. Phase stability with cubic equations of state: Global optimization approach. AIChE JOURNAL. ISSN 0001-1541, JUL 2000, vol. 46, no. 7, p. 1422-1440. [WOS]
- KALTOFEN, E. Challenges of symbolic computation: My favorite open problems. JOURNAL OF SYMBOLIC COMPUTATION. ISSN 0747-7171, JUN 2000, vol. 29, no. 6, p. 891-919. [WOS]
- GHOSH, R. - SEN, S. - DATTA, K.B. An improved method for determining the stability of interval matrices. INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE. ISSN 0020-7721, FEB 2000, vol. 31, no. 2, p. 171-176. [WOS]
- HITZ, M.A. - KALTOFEN, E. - LAKSHMAN, Y.N. Efficient algorithms for computing the nearest polynomial with a real root and related problems. ISSAC 99: PROCEEDINGS OF THE 1999 INTERNATIONAL SYMPOSIUM ON SYMBOLIC AND ALGEBRAIC COMPUTATION. 1999, p. 205-212. [WOS]
- VIDYASAGAR, M. Statistical learning in control and matrix theory. NONLINEAR MODELING - ADVANCED BLACK-BOX TECHNIQUES. 1998, p. 177-207. [WOS]
- BRAATZ, R.D. - RUSSELL, E.L. Robustness margin computation for large scale systems. COMPUTERS & CHEMICAL ENGINEERING. ISSN 0098-1354, AUG 1 1999, vol. 23, no. 8, p. 1021-1030. [WOS]
- RUMP, S.M. Ill-conditioned matrices are componentwise near to singularity. SIAM REVIEW. ISSN 0036-1445, MAR 1999, vol. 41, no. 1, p. 102-112. [WOS]
- RUMP, S.M. Ill-conditionedness need not be componentwise near to ill-posedness for least squares problems. BIT. ISSN 0006-3835, MAR 1999, vol. 39, no. 1, p. 143-151. [WOS]
- PARRILO, P.A. - SZNAIER, M. - PENA, R.S. - INANC, T. Mixed time/frequency-domain based robust identification. AUTOMATICA. ISSN 0005-1098, NOV 1998, vol. 34, no. 11, p. 1375-1389. [WOS]
- TOKER, O. - OZBAY, H. On the complexity of purely complex mu computation and related problems in multidimensional systems. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAR 1998, vol. 43, no. 3, p. 409-414. [WOS]
- TOKER, O. On the complexity of the robust stability problem for linear parameter varying systems. AUTOMATICA. ISSN 0005-1098, NOV 1997, vol. 33, no. 11, p. 2015-2017. [WOS]
- BLONDEL, V. - TSITSIKLIS, J.N. NP-hardness of some linear control design problems. SIAM JOURNAL ON CONTROL AND OPTIMIZATION. ISSN 0363-0129, NOV 1997, vol. 35, no. 6, p. 2118-2127. [WOS]
- FU, M.Y. - BARABANOV, N.E. Improved upper bounds for the mixed structured singular value. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, OCT 1997, vol. 42, no. 10, p. 1447-1452. [WOS]
- RUMP, S.M. Theorems of Perron-Frobenius type for matrices without sign restrictions. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 15 1997, vol. 266, p. 1-42. [WOS]
- ELGHAOUI, L. - LEBRET, H. Robust solutions to least-squares problems with uncertain data. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, OCT 1997, vol. 18, no. 4, p. 1035-1064. [WOS]
- FU, M.Y. The real structured singular value is hardly approximable. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, SEP 1997, vol. 42, no. 9, p. 1286-1288. [WOS]


- SYRMOS, V.L. - ABDALLAH, C.T. - DORATO, P. - GRIGORIADIS, K. Static output feedback - A survey. *AUTOMATICA*. ISSN 0005-1098, FEB 1997, vol. 33, no. 2, p. 125-137. [WOS]
- RUMP, S.M. Bounds for the componentwise distance to the nearest singular matrix. *SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS*. ISSN 0895-4798, JAN 1997, vol. 18, no. 1, p. 83-103. [WOS]
- WEN, C. - FONG, I.K. Parametric uncertainty bounds for performance robustness of linear systems with output feedback. *IEE PROCEEDINGS-CONTROL THEORY AND APPLICATIONS*. ISSN 1350-2379, NOV 1996, vol. 143, no. 6, p. 509-513. [WOS]
- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]
- BRIMKOV, V. - CODENOTTI, B. - LEONCINI, M. - RESTA, G. Strong NP-completeness of a matrix similarity problem. *THEORETICAL COMPUTER SCIENCE*. ISSN 0304-3975, OCT 10 1996, vol. 165, no. 2, p. 483-490. [WOS]
- MEINSMA, G. - SHRIVASTAVA, Y. - FU, M.Y. Some properties of an upper bound for  $\mu$ . *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*. ISSN 0018-9286, SEP 1996, vol. 41, no. 9, p. 1326-1330. [WOS]
- SEZER, M.E. - SILJAK, D.D. On stability of interval matrices - Reply. *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*. ISSN 0018-9286, MAY 1996, vol. 41, no. 5, p. 765-766. [WOS]
- KREINOVICH, V. - LAKEYEV, A.V. - NOSKOV, S.I. Approximate linear algebra is intractable. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, JAN 1 1996, vol. 232, p. 45-54. [WOS]
- FRIEDMAN, J.H. - KABAMBA, P.T. - KHARGONEKAR, P.P. WORST-CASE AND AVERAGE H-2 PERFORMANCE ANALYSIS AGAINST REAL CONSTANT PARAMETRIC UNCERTAINTY. *AUTOMATICA*. ISSN 0005-1098, APR 1995, vol. 31, no. 4, p. 649-657. [WOS]
- YAZICI, A. - KARAMANCIOGLU, A. - KASIMBEYLI, R. A nonlinear programming technique to compute a tight lower bound for the real structured singular value. *OPTIMIZATION AND ENGINEERING*. ISSN 1389-4420, SEP 2011, vol. 12, no. 3, p. 445-458. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. *JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS*. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]
- ASHOKKUMAR, C.R. Non-fragile gains for simultaneous vibration suppression in structures. *PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING*. ISSN 0959-6518, 2011, vol. 225, no. 12, p. 292-299. [WOS]
- CAMPI, M.C. Why Is Resorting to Fate Wise? A Critical Look at Randomized Algorithms in Systems and Control. *EUROPEAN JOURNAL OF CONTROL*. ISSN 0947-3580, SEP-OCT 2010, vol. 16, no. 5, p. 419-430. [WOS]
- RUMP, S.M. - GRAILLAT, S. Verified error bounds for multiple roots of systems of nonlinear equations. *NUMERICAL ALGORITHMS*. ISSN 1017-1398, JUL 2010, vol. 54, no. 3, p. 359-377. [WOS]
- MAHAJAN, M. - SARMA, J.M.N. On the Complexity of Matrix Rank and Rigidity. *THEORY OF COMPUTING SYSTEMS*. ISSN 1432-4350, JAN 2010, vol. 46, no. 1, p. 9-26. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E. BOUNDS ON REAL EIGENVALUES AND SINGULAR VALUES OF INTERVAL MATRICES. *SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS*. ISSN 0895-4798, 2010, vol. 31, no. 4, p. 2116-2129. [WOS]
- RUMP, S.M. Verification methods: Rigorous results using floating-point arithmetic. *ACTA NUMERICA 2010*, VOL 19. ISSN 0962-4929, 2010, vol. 19, p. 287-449. [WOS]

### **Rohn, Jiří**

Interval matrices: Singularity and real eigenvalues.

*SIAM Journal on Matrix Analysis and Applications*. Roč. 14 (1993), s. 82-91. ISSN 0895-4798

Impakt faktor: 0.862, rok: 1993

 [DOI: 10.1137/0614007](https://doi.org/10.1137/0614007)

Citováno: 8


- CECHLAROVA, K. Eigenvectors of interval matrices over max-plus algebra. DISCRETE APPLIED MATHEMATICS. ISSN 0166-218X, SEP 1 2005, vol. 150, no. 1-3, p. 2-15. [WOS]
- RUMP, S.M. Bounds for the componentwise distance to the nearest singular matrix. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JAN 1997, vol. 18, no. 1, p. 83-103. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]
- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E. Characterizing and approximating eigenvalue sets of symmetric interval matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, OCT 2011, vol. 62, no. 8, p. 3152-3163. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E. A filtering method for the interval eigenvalue problem. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, FEB 15 2011, vol. 217, no. 12, p. 5236-5242. [WOS]
- HLADIK, M. - DANAY, D. - TSIGARIDAS, E. BOUNDS ON REAL EIGENVALUES AND SINGULAR VALUES OF INTERVAL MATRICES. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2010, vol. 31, no. 4, p. 2116-2129. [WOS]

### Rohn, Jiří

Inverse Interval Matrix.

*SIAM Journal on Numerical Analysis*. Roč. 30, č. 3 (1993), s. 864-870. ISSN 0036-1429

Impakt faktor: 0.800, rok: 1993

 [DOI: 10.1137/0730044](https://doi.org/10.1137/0730044)

Citováno: 12

- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- LI, B.H. - LI, C.C. - SI, J. - ABOUSLEMAN, G.P. Interval recursive least-squares filtering with applications to video target tracking. OPTICAL ENGINEERING. ISSN 0091-3286, OCT 2008, vol. 47, no. 10. [WOS]
- UWAMUSI, S.E. On the interval hull of solution sets of parametrised nonlinear equations. SCIENTIFIC RESEARCH AND ESSAYS. ISSN 1992-2248, SEP 2008, vol. 3, no. 9, p. 383-389. [WOS]
- AHN, H.S. Exact Maximum Singular Value of a Complex Interval Matrix. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, OCT 2008, vol. 53, no. 9, p. 2165-2170. [WOS]
- LI, B.H. - LI, C.C. - SI, J. - ABOUSLEMAN, G. Interval least-squares filtering with applications to video target tracking - art. no. 69681D. SIGNAL PROCESSING, SENSOR FUSION, AND TARGET RECOGNITION XVII. ISSN 0277-786X, 2008, vol. 6968, p. D9681-D9681. [WOS]

- AHN, H.S. - CHEN, Y. Exact maximum singular value calculation of an interval matrix. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAR 2007, vol. 52, no. 3, p. 510-514. [WOS]
- DIAZ, B. - MORILLAS, A. Incorporating uncertainty in the coefficients and multipliers of an IO table: A case study. PAPERS IN REGIONAL SCIENCE. ISSN 1056-8190, NOV 2011, vol. 90, no. 4, p. 845-U383. [WOS]
- AHN, H.S. Powers of parametric interval uncertain matrix. IET CONTROL THEORY AND APPLICATIONS. ISSN 1751-8644, FEB 2011, vol. 5, no. 3, p. 523-534. [WOS]
- IMPOLLONIA, N. - MUSCOLINO, G. Interval analysis of structures with uncertain-but-bounded axial stiffness. COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING. ISSN 0045-7825, 2011, vol. 200, no. 21-22, p. 1945-1962. [WOS]
- LEBEDINSKA, J. On another view of an inverse of an interval matrix. SOFT COMPUTING. ISSN 1432-7643, AUG 2010, vol. 14, no. 10, p. 1043-1046. [WOS]
- IMPOLLONIA, N. - MUSCOLINO, G. STATIC ANALYSIS OF FE DISCRETIZED STRUCTURES WITH BOUNDED UNCERTAINTIES VIA INTERVAL METHOD. IMECE 2009: PROCEEDINGS OF THE ASME INTERNATIONAL MECHANICAL ENGINEERING CONGRESS AND EXPOSITION, VOL 10, PTS A AND B. 2010, p. 747-756. [WOS]
- GARLOFF, J. Pivot tightening for direct methods for solving symmetric positive definite systems of linear interval equations. COMPUTING. ISSN 0010-485X, MAR 2012, vol. 94, no. 2-4, SI, p. 97-107. [WOS]

### **Rohn, Jiří**

Cheap and tight bounds: the recent result by E. Hansen can be made more efficient. *Interval Computations.* -, č. 4 (1993), s. 13-21. ISSN 0135-4868

Citováno: 11

- MOENS, D. - VANDEPITTE, D. A survey of non-probabilistic uncertainty treatment in finite element analysis. COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING. ISSN 0045-7825, 2005, vol. 194, no. 12-16, p. 1527-1555. [WOS]
- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]
- NEUMAIER, A. On Shary's algebraic approach for linear interval equations. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, MAY 16 2000, vol. 21, no. 4, p. 1156-1162. [WOS]
- HEINDL, G. Some inclusion results based on a generalized version of the Oettli-Prager theorem. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1996, vol. 76, p. 263-266. [WOS]
- NING, S. - KEARFOTT, R.B. A comparison of some methods for solving linear interval equations. SIAM JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, AUG 1997, vol. 34, no. 4, p. 1289-1305. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]
- OETOMO, D. - DANAY, D. - SHIRINZADEH, B. - MERLET, J.P. Certified workspace analysis of 3RRR planar parallel flexure mechanism. 2008 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION, VOLS 1-9. ISSN 1050-4729, 2008, p. 3838-3843. [WOS]
- WANG, Y. - NNAJI, B.O. Solving interval constraints by linearization in computer-aided design.

- RELIABLE COMPUTING. ISSN 1385-3139, APR 2007, vol. 13, no. 2, p. 211-244. [WOS]  
 --- CHABERT, G. - GOLDSZTEJN, A. Extension of the Hansen-Bliek method to right-quantified linear systems. RELIABLE COMPUTING. ISSN 1385-3139, AUG 2007, vol. 13, no. 4, p. 325-349. [WOS]  
 --- BARBOZA, L.V. - DIMURO, G.P. - REISER, R.H.S. Towards interval analysis of the load uncertainty in power electric systems. 2004 INTERNATIONAL CONFERENCE ON PROBABILISTIC METHODS APPLIED TO POWER SYSTEMS. 2004, p. 538-544. [WOS]  
 --- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]

## 1992

### **Rohn, Jiří - Deif, A.**

On the Range of Eigenvalues of an Interval Matrix.

*Computing*. Roč. 47, č. 3-4 (1992), s. 373-377. ISSN 0010-485X

 [DOI: 10.1007/BF02320205](https://doi.org/10.1007/BF02320205)

Citováno: 8

- AHN, H.S. - CHEN, Y. Exact maximum singular value calculation of an interval matrix. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAR 2007, vol. 52, no. 3, p. 510-514. [WOS]  
 --- AHN, H.S. - CHEN, Y.Q. - MOORE, K.L. Maximum singular value and power of an interval matrix. IEEE ICMA 2006: Proceeding of the 2006 IEEE International Conference on Mechatronics and Automation, Vols 1-3, Proceedings. 2006, p. 678-683. [WOS]  
 --- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. Characterizing and approximating eigenvalue sets of symmetric interval matrices. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, OCT 2011, vol. 62, no. 8, p. 3152-3163. [WOS]  
 --- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E.P. An algorithm for addressing the real interval eigenvalue problem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2011, vol. 235, no. 8, p. 2715-2730. [WOS]  
 --- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. A filtering method for the interval eigenvalue problem. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, FEB 15 2011, vol. 217, no. 12, p. 5236-5242. [WOS]  
 --- AHN, H.S. Powers of parametric interval uncertain matrix. IET CONTROL THEORY AND APPLICATIONS. ISSN 1751-8644, FEB 2011, vol. 5, no. 3, p. 523-534. [WOS]  
 --- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]  
 --- HLADIK, M. - DANNEY, D. - TSIGARIDAS, E. BOUNDS ON REAL EIGENVALUES AND SINGULAR VALUES OF INTERVAL MATRICES. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2010, vol. 31, no. 4, p. 2116-2129. [WOS]

### **Rohn, Jiří**

Stability of interval matrices - the real eigenvalue case.

*IEEE Transactions on Automatic Control*. Roč. 37, - (1992), s. 1604-1605. ISSN 0018-9286

Impakt faktor: 0.994, rok: 1992

 [DOI: 10.1109/9.256393](https://doi.org/10.1109/9.256393)

Citováno: 10

- KOWYNIA, J. An algorithm for checking Hurwitz stability of K-symmetrizable interval matrices. CONTROL AND CYBERNETICS. ISSN 0324-8569, 2005, vol. 34, no. 2, p. 477-486. [WOS]
- KOLEV, L. - PETRAKIEVA, S. Assessing the stability of linear time-invariant continuous interval dynamic systems. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAR 2005, vol. 50, no. 3, p. 393-397. [WOS]
- POLYAK, B.T. Robust linear algebra and robust aperiodicity. DIRECTIONS IN MATHEMATICAL SYSTEMS THEORY AND OPTIMIZATION. ISSN 0170-8643, 2003, vol. 286, p. 249-260. [WOS]
- LIAO, X.X. - MAO, X. Exponential stability of stochastic delay interval systems. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, JUL 5 2000, vol. 40, no. 3, p. 171-181. [WOS]
- COHEN, N. - LEWKOWICZ, I. A characterization of convex cones of matrices with constant regular inertia. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, OCT 15 2000, vol. 318, no. 1-3, p. 23-33. [WOS]
- SUN, Y.J. - LEE, C.T. - HSIEH, J.G. Sufficient conditions for the stability of interval systems with multiple time-varying delays. JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS. ISSN 0022-247X, MAR 1 1997, vol. 207, no. 1, p. 29-44. [WOS]
- KOLEV, L. 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. ISSN 0332-1649, 2008, vol. 27, no. 6, p. 1463-1480. [WOS]
- DELGADO-ROMERO, J.J.D. - GONZALEZ-GARZA, R.S. - GALLO, J.C. Stability in discrete interval systems. 8TH WORLD MULTI-CONFERENCE ON SYSTEMICS, CYBERNETICS AND INFORMATICS, VOL IX, PROCEEDINGS - COMPUTER SCIENCE AND ENGINEERING: I. 2004, p. 283-287. [WOS]
- KOLEV, L. Eigenvalue range determination for interval and parametric matrices. INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS. ISSN 0098-9886, DEC 2010, vol. 38, no. 10, p. 1027-1061. [WOS]
- MATCOVSCHI, M.H. - PASTRAVANU, O. - VOICU, M. Right Bounds for Eigenvalue Ranges of Interval Matrices - Estimation Principles vs Global Optimization. CONTROL ENGINEERING AND APPLIED INFORMATICS. ISSN 1454-8658, MAR 2012, vol. 14, no. 1, p. 3-13. [WOS]

## 1990

### Rohn, Jiří

A Short Proof of Finiteness of Murty's Principal Pivoting Algorithm.

*Mathematical Programming*. Roč. 46, č. 2 (1990), s. 255-256. ISSN 0025-5610

[DOI: 10.1007/BF01585743](https://doi.org/10.1007/BF01585743)

Citováno: 3

--- LI, D.H. - NIE, Y.Y. - ZENG, J.P. - LI, Q.N. Conjugate gradient method for the linear complementarity problem with S-matrix. *MATHEMATICAL AND COMPUTER MODELLING*. ISSN 0895-7177, SEP 2008, vol. 48, no. 5-6, p. 918-928. [WOS]

--- FUKUDA, K. - NAMIKI, M. ON EXTREMAL BEHAVIORS OF MURTY LEAST INDEX METHOD. *MATHEMATICAL PROGRAMMING*. ISSN 0025-5610, MAY 11 1994, vol. 64, no. 3, p. 365-370. [WOS]

--- VENKATESWARAN, V. AN ALGORITHM FOR THE LINEAR COMPLEMENTARITY-PROBLEM WITH A P(0)-MATRIX. *SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS*. ISSN 0895-4798, OCT 1993, vol. 14, no. 4, p. 967-977. [WOS]

### Rohn, Jiří

Nonsingularity Under Data Rounding.

*Linear Algebra and Its Applications*. Roč. 139, - (1990), s. 171-174. ISSN 0024-3795

Impakt faktor: 0.354, rok: 1990

[DOI: 10.1016/0024-3795\(90\)90396-T](https://doi.org/10.1016/0024-3795(90)90396-T)

Citováno: 3

--- CHAITINCHATELIN, F. - FRAYSSE, V. - BRACONNIER, T. COMPUTATIONS IN THE NEIGHBORHOOD OF ALGEBRAIC SINGULARITIES. *NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION*. ISSN 0163-0563, 1995, vol. 16, no. 3-4, p. 287-302. [WOS]

--- EL GHAOUI, L. Inversion error, condition number, and approximate inverses of uncertain matrices. *LINEAR ALGEBRA AND ITS APPLICATIONS*. ISSN 0024-3795, MAR 1 2002, vol. 343, p. 171-193. [WOS]

--- DEMMEL, J. THE COMPONENTWISE DISTANCE TO THE NEAREST SINGULAR MATRIX. *SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS*. ISSN 0895-4798, JAN 1992, vol. 13, no. 1, p. 10-19. [WOS]

### Rohn, Jiří

Real Eigenvalues of an Interval Matrix with Rank one Radius.

*ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*. Roč. 70, č. 1 (1990), s. T562-T563. ISSN 0044-2267

Impakt faktor: 0.140, rok: 1990

[DOI: 10.1002/zamm.19900700603](https://doi.org/10.1002/zamm.19900700603)

Citováno: 1

--- DIMAROGONAS, A.D. INTERVAL-ANALYSIS OF VIBRATING SYSTEMS. *JOURNAL OF SOUND AND VIBRATION*. ISSN 0022-460X, JUN 15 1995, vol. 183, no. 4, p. 739-749. [WOS]

## 1989

**Rohn, Jiří**

A Farkas-type Theorem for Linear Interval Equations.  
*Computing*. Roč. 43, č. 1 (1989), s. 93-95. ISSN 0010-485X  
[DOI: 10.1007/BF02243809](https://doi.org/10.1007/BF02243809)

Citováno: 1

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

**Rohn, Jiří**

A Two-sequence Method for Linear interval Equations.  
*Computing*. Roč. 41, č. 1-2 (1989), s. 137-140. ISSN 0010-485X  
[DOI: 10.1007/BF02238736](https://doi.org/10.1007/BF02238736)

Citováno: 1

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

**Rohn, Jiří**

An Asymptotic Result for Linear Interval Systems.  
*Bit*. Roč. 29, č. 2 (1989), s. 372-374. ISSN 0006-3835  
[DOI: 10.1007/BF01952693](https://doi.org/10.1007/BF01952693)

Citováno: 1

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

**Rohn, Jiří**

New Condition Numbers for Matrices and Linear Systems.  
*Computing*. Roč. 41, č. 1-2 (1989), s. 167-169. ISSN 0010-485X  
[DOI: 10.1007/BF02238741](https://doi.org/10.1007/BF02238741)

Citováno: 23

--- DIAO, H.I. - QIN, M. - WEI, Y. Condition numbers for the outer inverse and constrained singular linear system. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, MAR 1 2006, vol. 174, no. 1, p. 588-612. [WOS]  
--- WEI, Y.M. - CAO, Y.H. - XIANG, H. A note on the componentwise perturbation bounds of matrix inverse and linear systems. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, OCT 15 2005, vol. 169, no. 2, p. 1221-1236. [WOS]  
--- XIANG, H. - DIAO, H. - WEI, Y.M. On perturbation bounds of Kronecker product linear systems



- and their level-2 condition numbers. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, NOV 1 2005, vol. 183, no. 1, p. 210-231. [WOS]
- WEI, Y.M. - DIAO, H. Condition number for the Drazin inverse and the Drazin-inverse solution of singular linear system with their condition numbers. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, OCT 15 2005, vol. 182, no. 2, p. 270-289. [WOS]
- ZHANG, H.M. - XIANG, H. - WEI, Y.M. Condition numbers for linear systems and Kronecker product linear systems with multiple right-hand sides. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2007, vol. 84, no. 12, p. 1805-1817. [WOS]
- CUCKER, F. - DIAO, H. Mixed and componentwise condition numbers for rectangular structured matrices. CALCOLO. ISSN 0008-0624, 2007, vol. 44, no. 2, p. 89-115. [WOS]
- XIANG, H. - WEI, Y.M. Structured mixed and componentwise condition numbers of some structured matrices. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, MAY 15 2007, vol. 202, no. 2, p. 217-229. [WOS]
- CUCKER, F. - DIAO, H.A. - WEI, Y.M. On mixed and componentwise condition numbers for Moore-Penrose inverse and linear least squares problems. MATHEMATICS OF COMPUTATION. ISSN 0025-5718, 2007, vol. 76, no. 258, p. 947-963. [WOS]
- LI, Z. - SUN, J. MIXED AND COMPONENTWISE CONDITION NUMBERS FOR WEIGHTED MOORE-PENROSE INVERSE AND WEIGHTED LEAST SQUARES PROBLEMS. FILOMAT. ISSN 0354-5180, FEB 2009, vol. 23, no. 1, p. 43-59. [WOS]
- ZHOU, L.M. - LIN, L.J. - WEI, Y.M. - QIAO, S.Z. Perturbation analysis and condition numbers of scaled total least squares problems. NUMERICAL ALGORITHMS. ISSN 1017-1398, JUL 2009, vol. 51, no. 3, p. 381-399. [WOS]
- ZHOU, L.M. - LIN, Y.Q. - WEI, Y.M. - QIAO, S.Z. Perturbation analysis and condition numbers of symmetric algebraic Riccati equations. AUTOMATICA. ISSN 0005-1098, APR 2009, vol. 45, no. 4, p. 1005-1011. [WOS]
- BABOULIN, M. - GRATTON, S. Using dual techniques to derive componentwise and mixed condition numbers for a linear function of a linear least squares solution. BIT NUMERICAL MATHEMATICS. ISSN 0006-3835, MAR 2009, vol. 49, no. 1, p. 3-19. [WOS]
- RUMP, S.M. Structured perturbations - Part I: Normwise distances. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, 2003, vol. 25, no. 1, p. 1-30. [WOS]
- WEI, Y.M. - XU, W. Condition number of Bott-Duffin inverse and their condition numbers. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, SEP 20 2003, vol. 142, no. 1, p. 79-97. [WOS]
- RUMP, S.M. Ill-conditioned matrices are componentwise near to singularity. SIAM REVIEW. ISSN 0036-1445, MAR 1999, vol. 41, no. 1, p. 102-112. [WOS]
- RUMP, S.M. Structured perturbations and symmetric matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JUL 15 1998, vol. 278, no. 1-3, p. 121-132. [WOS]
- KENNEY, C.S. - LAUB, A.J. - REESE, M.S. Statistical condition estimation for linear systems. SIAM JOURNAL ON SCIENTIFIC COMPUTING. ISSN 1064-8275, MAR 1998, vol. 19, no. 2, p. 566-583. [WOS]
- HIGHAM, D.J. CONDITION NUMBERS AND THEIR CONDITION NUMBERS. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 1 1995, vol. 214, p. 193-213. [WOS]
- CHANDRASEKARAN, S. - IPSEN, I.C.F. ON THE SENSITIVITY OF SOLUTION COMPONENTS IN LINEAR-SYSTEMS OF EQUATIONS. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JAN 1995, vol. 16, no. 1, p. 93-112. [WOS]
- GOHBERG, I. - KOLTRACHT, I. MIXED, COMPONENTWISE, AND STRUCTURED CONDITION NUMBERS. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JUL 1993, vol. 14, no. 3, p. 688-704. [WOS]
- BARTELS, S.G. - HIGHAM, D.J. THE STRUCTURED SENSITIVITY OF VANDERMONDE-LIKE SYSTEMS.

- NUMERISCHE MATHEMATIK. ISSN 0029-599X, JUN 1992, vol. 62, no. 1, p. 17-33. [WOS]  
--- RUMP, S.M. A CLASS OF ARBITRARILY ILL CONDITIONED FLOATING-POINT MATRICES. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, OCT 1991, vol. 12, no. 4, p. 645-653. [WOS]  
--- CHU, D. - LIN, L. - TAN, R.C.E. - WEI, Y. Condition numbers and perturbation analysis for the Tikhonov regularization of discrete ill-posed problems. NUMERICAL LINEAR ALGEBRA WITH APPLICATIONS. ISSN 1070-5325, JAN 2011, vol. 18, no. 1, p. 87-103. [WOS]

**Rohn, Jiří**

On Nonconvexity of the Solution Set of A System of Linear Interval Equations.

*Bit.* Roč. 30, č. 1 (1989), s. 161-165. ISSN 0006-3835

[DOI: 10.1007/BF01932142](https://doi.org/10.1007/BF01932142)

Citováno: 6

- TANAKA, Y. Solution convexity of a system of linear interval equations. INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE. ISSN 0020-7721, DEC 1995, vol. 26, no. 12, p. 2429-2434. [WOS]  
--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]  
--- NEDOMA, J. Positively regular vague matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 15 2001, vol. 326, no. 1-3, p. 85-100. [WOS]  
--- NEDOMA, J. On solving vague systems of linear equations with pattern-shaped columns. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 107-118. [WOS]  
--- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]  
--- ALEFELD, G. - MAYER, G. ON THE SYMMETRICAL AND UNSYMMETRIC SOLUTION SET OF INTERVAL SYSTEMS. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, OCT 1995, vol. 16, no. 4, p. 1223-1240. [WOS]

**Rohn, Jiří**

Systems of Linear Interval Equations.

*Linear Algebra and Its Applications.* Roč. 126, - (1989), s. 39-78. ISSN 0024-3795

Impakt faktor: 0.425, rok: 1989

[DOI: 10.1016/0024-3795\(89\)90004-9](https://doi.org/10.1016/0024-3795(89)90004-9)

Citováno: 87

- SKRJANC, I. Pitch angle control of unmanned air vehicle with uncertain system parameters. JOURNAL OF INTELLIGENT & ROBOTIC SYSTEMS. ISSN 0921-0296, NOV 2006, vol. 47, no. 3, p. 285-297. [WOS]  
--- QIU, Z.P. - WANG, X.J. - CHEN, J.Y. Exact bounds for the static response set of structures with uncertain-but-bounded parameters. INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES. ISSN 0020-7683, OCT 2006, vol. 43, no. 21, p. 6574-6593. [WOS]  
--- SARIC, A.T. - STANKOVIC, A.M. An application of interval analysis and optimization to electric energy markets. IEEE TRANSACTIONS ON POWER SYSTEMS. ISSN 0885-8950, MAY 2006, vol. 21,

- no. 2, p. 515-523. [WOS]
- KULPA, Z. Designing diagrammatic catalogues of types of basic interval equation: A case study. MATHEMATICAL KNOWLEDGE MANAGEMENT. ISSN 0302-9743, 2006, vol. 3863, p. 283-298. [WOS]
- CHEN, X.J. - XIANG, S.H. Computation of error bounds for P-matrix linear complementarity problems. MATHEMATICAL PROGRAMMING. ISSN 0025-5610, JUL 2006, vol. 106, no. 3, p. 513-525. [WOS]
- GANESAN, K. - VEERAMANI, P. On arithmetic operations of interval numbers. INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS. ISSN 0218-4885, DEC 2005, vol. 13, no. 6, p. 619-631. [WOS]
- NAZIN, S.A. - POLYAK, B.T. Interval parameter estimation under model uncertainty. MATHEMATICAL AND COMPUTER MODELLING OF DYNAMICAL SYSTEMS. ISSN 1387-3954, JUN 2005, vol. 11, no. 2, p. 225-237. [WOS]
- PENA, J. On the block-structured distance to non-surjectivity of sublinear mappings. MATHEMATICAL PROGRAMMING. ISSN 0025-5610, JUL 2005, vol. 103, no. 3, p. 561-573. [WOS]
- LEWIS, A.S. The structured distance to ill-posedness for conic systems. MATHEMATICS OF OPERATIONS RESEARCH. ISSN 0364-765X, NOV 2004, vol. 29, no. 4, p. 776-785. [WOS]
- BENTBIB, A.H. Conjugate directions method for solving interval linear systems. NUMERICAL ALGORITHMS. ISSN 1017-1398, 1999, vol. 21, no. 1-4, p. 79-86. [WOS]
- KULPA, Z. - RADOMSKI, A. - GAJL, O. - KLEIBER, M. - SKALNA, I. Hybrid expert system for qualitative and quantitative analysis of truss structures. ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE. ISSN 0952-1976, APR 1999, vol. 12, no. 2, p. 229-240. [WOS]
- SHARY, S.P. Controllable solution set to interval static systems. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, OCT 1997, vol. 86, no. 2-3, p. 185-196. [WOS]
- CHEN, R. - WARD, A.C. Generalizing interval matrix operations for design. JOURNAL OF MECHANICAL DESIGN. ISSN 1050-0472, MAR 1997, vol. 119, no. 1, p. 65-72. [WOS]
- CEVIK, M.K.K. Eigenvalue bounds, stability, nonsingularity of matrix polytopes. CONTROL AND COMPUTERS. ISSN 0315-8934, 1995, vol. 23, no. 3, p. 84-87. [WOS]
- TANAKA, Y. Solution convexity of a system of linear interval equations. INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE. ISSN 0020-7721, DEC 1995, vol. 26, no. 12, p. 2429-2434. [WOS]
- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]
- KELLING, B. GEOMETRIC ANALYSIS OF BOUNDED SOLUTION SETS OF SYSTEMS OF LINEAR INTERVAL EQUATIONS. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1994, vol. 74, no. 12, p. 625-628. [WOS]
- DEHGHAN, M. - HASHEMI, B. Determination of the degrees of P-property and nonnegative invertibility for a fuzzy matrix. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING. ISSN 0888-613X, SEP 2007, vol. 46, no. 1, p. 98-108. [WOS]
- MANGASARIAN, O.L. Absolute value programming. COMPUTATIONAL OPTIMIZATION AND APPLICATIONS. ISSN 0926-6003, JAN 2007, vol. 36, no. 1, p. 43-53. [WOS]
- MAYER, G. On regular and singular interval systems. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2007, vol. 199, no. 2, Sp. Iss. SI, p. 220-228. [WOS]
- DEHGHAN, M. - HASHEMI, B. Solution of the fully fuzzy linear systems using the decomposition procedure. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, NOV 15 2006, vol. 182, no. 2, p. 1568-1580. [WOS]
- VROMAN, A. - DESCHRIJVER, G. - KERRE, E.E. Solving systems of linear fuzzy equations by

- parametric functions. IEEE TRANSACTIONS ON FUZZY SYSTEMS. ISSN 1063-6706, JUN 2007, vol. 15, no. 3, p. 370-384. [WOS]
- VROMAN, A. - DESCHRIJVER, G. - KERRE, E.E. Solving systems of linear fuzzy equations by parametric functions - An improved algorithm. FUZZY SETS AND SYSTEMS. ISSN 0165-0114, JUL 16 2007, vol. 158, no. 14, p. 1515-1534. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]
- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- ZHANG, C. - WEI, Q.J. Global and Finite Convergence of a Generalized Newton Method for Absolute Value Equations. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, NOV 2009, vol. 143, no. 2, p. 391-403. [WOS]
- ZHANG, C. - CHEN, X.J. - XIU, N.H. Global error bounds for the extended vertical LCP. COMPUTATIONAL OPTIMIZATION AND APPLICATIONS. ISSN 0926-6003, APR 2009, vol. 42, no. 3, p. 335-352. [WOS]
- KOLBERG, M. - DORN, M. - FERNANDES, L.G. - BOHLENDER, G. Parallel Verified Linear System Solver for Uncertain Input Data. 20TH INTERNATIONAL SYMPOSIUM ON COMPUTER ARCHITECTURE AND HIGH PERFORMANCE COMPUTING, PROCEEDINGS. ISSN 1550-6533, 2008, p. 89-96. [WOS]
- ZIMMERMANN, K. Some Location and Synchronization Problems with Inexact Input Parameters. PROCEEDINGS OF THE 25TH INTERNATIONAL CONFERENCE ON MATHEMATICAL METHODS IN ECONOMICS 2007. 2007, p. 370-376. [WOS]
- SHARY, S.P. Parameter partition methods for optimal numerical solution of interval linear systems. COMPUTATIONAL SCIENCE AND HIGH PERFORMANCE COMPUTING III. ISSN 1612-2909, 2008, vol. 101, p. 184-205. [WOS]
- DZHAFAROV, V. - BUYUKKOROGLU, T. On nonsingularity of a polytope of matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 1 2008, vol. 429, no. 5-6, p. 1174-1183. [WOS]
- KAKIMURA, N. Sign-solvable linear complementarity problems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JUL 15 2008, vol. 429, no. 2-3, p. 606-616. [WOS]
- ALAMO, T. - TEMPO, R. - RAMIREZ, D.R. - CAMACHO, E.F. A new vertex result for robustness problems with interval matrix uncertainty. SYSTEMS & CONTROL LETTERS. ISSN 0167-6911, JUN 2008, vol. 57, no. 6, p. 474-481. [WOS]
- VANANTWERP, J.G. - BRAATZ, R.D. - ALAMO, T. - DE LA PENA, D.M. - ALVARADO, I. - LIMON, D. - SALCEDO, J.V. - MARTINEZ, M. Discussion on: "GPC robust design using linear and/or bilinear matrix inequalities". EUROPEAN JOURNAL OF CONTROL. ISSN 0947-3580, SEP-OCT 2007, vol. 13, no. 5, p. 468-472. [WOS]
- ZIMMERMANN, K. Solution concepts for interval equations - A general approach with applications to or. SOR'07: PROCEEDINGS OF THE 9TH INTERNATIONAL SYMPOSIUM ON OPERATIONAL RESEARCH IN SLOVENIA. 2007, p. 129-133. [WOS]
- MAHAJAN, M. - SARMA, J.M.N. On the complexity of matrix rank and rigidity. Computer Science - Theory and Applications. ISSN 0302-9743, 2007, vol. 4649, p. 269-280. [WOS]
- KAKIMURA, N. Sign-solvable linear complementarity problems. Integer Programming and Combinatorial Optimization, Proceedings. ISSN 0302-9743, 2007, vol. 4513, p. 397-409. [WOS]
- SKALNA, I. Parametric fuzzy linear systems. Theoretical Advances and Applications of Fuzzy Logic and Soft Computing. ISSN 1615-3871, 2007, vol. 42, p. 556-564. [WOS]
- POPOVA, E.D. Parametric interval linear solver. NUMERICAL ALGORITHMS. ISSN 1017-1398, DEC

- 2004, vol. 37, no. 1-4, p. 345-356. [WOS]
- SCHAFFER, U. A new subclass of P-matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, DEC 1 2004, vol. 393, p. 353-364. [WOS]
- FANG, Y.P. - HUANG, N.J. A characterization of an acceptable solution of the extended nonlinear complementarity problem. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2004, vol. 84, no. 8, p. 564-567. [WOS]
- POLYAK, B.T. - NAZIN, S.A. Interval solutions for interval algebraic equations. MATHEMATICS AND COMPUTERS IN SIMULATION. ISSN 0378-4754, JUN 29 2004, vol. 66, no. 2-3, p. 207-217. [WOS]
- SCHAFFER, U. A linear complementarity problem with a P-matrix. SIAM REVIEW. ISSN 0036-1445, JUN 2004, vol. 46, no. 2, p. 189-201. [WOS]
- SCHAFFER, U. On the modulus algorithm for the linear complementarity problem. OPERATIONS RESEARCH LETTERS. ISSN 0167-6377, JUL 2004, vol. 32, no. 4, p. 350-354. [WOS]
- CALAFIORE, G. - EL GHAOU, L. Ellipsoidal bounds for uncertain linear equations and dynamical systems. AUTOMATICA. ISSN 0005-1098, MAY 2004, vol. 40, no. 5, p. 773-787. [WOS]
- LORDELO, A.D.S. - FERREIRA, P.A.V. Interval analysis and design of robust pole assignment controllers. PROCEEDINGS OF THE 41ST IEEE CONFERENCE ON DECISION AND CONTROL, VOLS 1-4. ISSN 0191-2216, 2002, p. 1461-1466. [WOS]
- CHEUNG, D. - CUCKER, F. - PENA, J. Unifying condition numbers for linear programming. MATHEMATICS OF OPERATIONS RESEARCH. ISSN 0364-765X, NOV 2003, vol. 28, no. 4, p. 609-624. [WOS]
- PENA, J. A characterization of the distance to infeasibility under block-structured perturbations. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, SEP 1 2003, vol. 370, p. 193-216. [WOS]
- RUMP, S.M. Perron-Frobenius theory for complex matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, APR 1 2003, vol. 363, p. 251-273. [WOS]
- LORDELO, A.D.S. - FERREIRA, P.A.V. Linear controller design by goal programming. 2002 IEEE INTERNATIONAL SYMPOSIUM ON COMPUTER AIDED CONTROL SYSTEM DESIGN PROCEEDINGS. 2002, p. 145-150. [WOS]
- POPOVA, E. Quality of the solution sets of parameter-dependent interval linear systems. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2002, vol. 82, no. 10, p. 723-727. [WOS]
- BENTBIB, A.H. Solving the full rank interval least squares problem. APPLIED NUMERICAL MATHEMATICS. ISSN 0168-9274, MAY 2002, vol. 41, no. 2, p. 283-294. [WOS]
- EL GHAOU, L. Inversion error, condition number, and approximate inverses of uncertain matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 1 2002, vol. 343, p. 171-193. [WOS]
- REX, G. - KUPFERSCHMIDT, J. What is the radius of singularity of a real matrix ?. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2001, vol. 81, p. S985-S986. [WOS]
- RUMP, S.M. Conservatism of the circle criterion - Solution of a problem posed by A. Megretski. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, OCT 2001, vol. 46, no. 10, p. 1605-1608. [WOS]
- GWINNER, J. A note on backward error analysis for generalized linear complementarity problems. ANNALS OF OPERATIONS RESEARCH. ISSN 0254-5330, 2001, vol. 101, p. 391-399. [WOS]
- KONICKOVA, J. Sufficient condition of basis stability of an interval linear programming problem. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2001, vol. 81, p. S677-S678. [WOS]
- NEDOMA, J. Positively regular vague matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, MAR 15 2001, vol. 326, no. 1-3, p. 85-100. [WOS]

- NEDOMA, J. On solving vague systems of linear equations with pattern-shaped columns. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 15 2001, vol. 324, no. 1-3, p. 107-118. [WOS]
- GE, Z.M. - CHU, L.W. An interval method for computing the stability margin of real uncertainty problems. OPTIMAL CONTROL APPLICATIONS & METHODS. ISSN 0143-2087, JUL-AUG 2000, vol. 21, no. 4, p. 185-193. [WOS]
- KONICKOVA, J. Solution of systems of interval linear equations. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 2000, vol. 80, p. S807-S808. [WOS]
- SEIF, N.P. - HASSANEIN, M.A. - DEIF, A.S. Inverse problem of the interval linear system of equations. COMPUTING. ISSN 0010-485X, 1999, vol. 63, no. 2, p. 185-200. [WOS]
- MONOV, V.V. On the spectrum of convex sets of matrices. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, MAY 1999, vol. 44, no. 5, p. 1009-1012. [WOS]
- RUMP, S.M. Theorems of Perron-Frobenius type for matrices without sign restrictions. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 15 1997, vol. 266, p. 1-42. [WOS]
- ABERTH, O. The solution of linear interval equations by a linear programming method. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JUL 1 1997, vol. 259, p. 271-279. [WOS]
- RAO, S.S. - BERKE, L. Analysis of uncertain structural systems using interval analysis. AIAA JOURNAL. ISSN 0001-1452, APR 1997, vol. 35, no. 4, p. 727-735. [WOS]
- WANG, H.F. - WANG, M.L. A fuzzy multiobjective linear programming. FUZZY SETS AND SYSTEMS. ISSN 0165-0114, FEB 16 1997, vol. 86, no. 1, p. 61-72. [WOS]
- RUMP, S.M. Bounds for the componentwise distance to the nearest singular matrix. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JAN 1997, vol. 18, no. 1, p. 83-103. [WOS]
- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]
- WAINBERG, B.I. - WOERDEMAN, H.J. The maximum row length nonsingularity radius. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, NOV 1 1996, vol. 247, p. 251-263. [WOS]
- DATTA, A. - BHATTACHARYYA, S.P. On a quantitative theory of robust adaptive control: An interval plant approach. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. ISSN 0018-9286, APR 1996, vol. 41, no. 4, p. 570-574. [WOS]
- FILIPOWSKI, S. On the complexity of solving feasible systems of linear inequalities specified with approximate data. MATHEMATICAL PROGRAMMING. ISSN 0025-5610, DEC 29 1995, vol. 71, no. 3, p. 259-288. [WOS]
- KREINOVICH, V. - LAKEYEV, A.V. - NOSKOV, S.I. Approximate linear algebra is intractable. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 1 1996, vol. 232, p. 45-54. [WOS]
- SHARY, S.P. ON OPTIMAL SOLUTION OF INTERVAL LINEAR-EQUATIONS. SIAM JOURNAL ON NUMERICAL ANALYSIS. ISSN 0036-1429, APR 1995, vol. 32, no. 2, p. 610-630. [WOS]
- AMENTA, N. HELLY-TYPE THEOREMS AND GENERALIZED LINEAR-PROGRAMMING. DISCRETE & COMPUTATIONAL GEOMETRY. ISSN 0179-5376, OCT 1994, vol. 12, no. 3, p. 241-261. [WOS]
- COXSON, G.E. THE P-MATRIX PROBLEM IS CO-NP-COMPLETE. MATHEMATICAL PROGRAMMING. ISSN 0025-5610, APR 15 1994, vol. 64, no. 2, p. 173-178. [WOS]
- SEIF, N.P. - HUSSEIN, S.A. - DEIF, A.S. THE INTERVAL SYLVESTER EQUATION. COMPUTING. ISSN 0010-485X, 1994, vol. 52, no. 3, p. 233-244. [WOS]
- BARMISH, B.R. - KANG, H.I. A SURVEY OF EXTREME POINT RESULTS FOR ROBUSTNESS OF CONTROL-SYSTEMS. AUTOMATICA. ISSN 0005-1098, JAN 1993, vol. 29, no. 1, p. 13-35. [WOS]
- DEMMEL, J. THE COMPONENTWISE DISTANCE TO THE NEAREST SINGULAR MATRIX. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JAN 1992, vol. 13, no. 1, p. 10-19. [WOS]
- SHARY, S.P. Solvability of interval linear equations and data analysis under uncertainty.

AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, FEB 2012, vol. 73, no. 2, p. 310-322.

[WOS]

--- KANNAN, M.R. - SIVAKUMAR, K.C. Moore-Penrose inverse positivity of interval matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2012, vol. 436, no. 3, p. 571-578. [WOS]

--- WANG, A.X. - WANG, H.J. - DENG, Y.K. Interval algorithm for absolute value equations. CENTRAL EUROPEAN JOURNAL OF MATHEMATICS. ISSN 1895-1074, OCT 2011, vol. 9, no. 5, p. 1171-1184.

[WOS]

--- KOLEV, L. Determining the Range of the Power Consumption in Linear DC Interval Parameter Circuits. IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS. ISSN 1549-8328, SEP 2011, vol. 58, no. 9, p. 2182-2188. [WOS]

--- GAVALEC, M. - PLAVKA, J. MONOTONE INTERVAL EIGENPROBLEM IN MAX-MIN ALGEBRA. KYBERNETIKA. ISSN 0023-5954, 2010, vol. 46, no. 3, SI, p. 387-396. [WOS]

--- MAHAJAN, M. - SARMA, J.M.N. On the Complexity of Matrix Rank and Rigidity. THEORY OF COMPUTING SYSTEMS. ISSN 1432-4350, JAN 2010, vol. 46, no. 1, p. 9-26. [WOS]

--- SHI, X.H. - WEI, Y.M. A sharp version of Bauer-Fike's theorem. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, JUL 2012, vol. 236, no. 13, p. 3218-3227. [WOS]

--- PLAVKA, J. On the  $O(n^3)$  algorithm for checking the strong robustness of interval fuzzy matrices. DISCRETE APPLIED MATHEMATICS. ISSN 0166-218X, MAR 2012, vol. 160, no. 4-5, p. 640-647. [WOS]

### **Rohn, Jiří**

On Sensitivity of the Optimal Value of a Linear Programs.

*Ekonomicko-matematický obzor*. Roč. 25, č. 1 (1989), s. 105-107

Citováno: 1

--- KOZERATSKAYA, L.N. - LEBEDEVA, T.T. - SERGIENKO, I.V. STABILITY OF DISCRETE OPTIMIZATION PROBLEMS. CYBERNETICS AND SYSTEMS ANALYSIS. ISSN 1060-0396, MAY-JUN 1993, vol. 29, no. 3, p. 367-378. [WOS]

## **1988**

### **Poljak, S. - Rohn, Jiří**

Radius of Nonsingularity.

Praha : MFF UK, 1988. 11 s. - (KAM Series, 88-117)

Citováno: 1

--- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]

## **1987**

### **Rohn, Jiří**

Inverse-positive interval matrices.

*ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*. Roč. 67, č. 5 (1987), s. T492-T493. ISSN 0044-2267

Citováno: 3

- KANNAN, M.R. - SIVAKUMAR, K.C. Moore-Penrose inverse positivity of interval matrices. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, FEB 1 2012, vol. 436, no. 3, p. 571-578. [WOS]
- DEGHAN, M. - GHATEE, M. - HASHEMI, B. Inverse of a fuzzy matrix of fuzzy numbers. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. ISSN 0020-7160, 2009, vol. 86, no. 8, p. 1433-1452. [WOS]
- DEGHAN, M. - HASHEMI, B. Determination of the degrees of P-property and nonnegative invertibility for a fuzzy matrix. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING. ISSN 0888-613X, SEP 2007, vol. 46, no. 1, p. 98-108. [WOS]

### **Rohn, Jiří**

Eigenvalues of a Symmetric Interval Matrix.

Freiburg : Albert-Ludwigs-Universitaet, 1987, s. 67-72. - (Freiburger Interval Berichte, 87/10)

Citováno: 13

- GAO, W. Natural frequency and mode shape analysis of structures with uncertainty. MECHANICAL SYSTEMS AND SIGNAL PROCESSING. ISSN 0888-3270, JAN 2007, vol. 21, no. 1, p. 24-39. [WOS]
- GAO, W. Interval natural frequency and mode shape analysis for truss structures with interval parameters. FINITE ELEMENTS IN ANALYSIS AND DESIGN. ISSN 0168-874X, MAR 2006, vol. 42, no. 6, p. 471-477. [WOS]
- QIU, Z.P. - WANG, X.J. - FRISWELL, M.I. Eigenvalue bounds of structures with uncertain-but-bounded parameters. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, APR 6 2005, vol. 282, no. 1-2, p. 297-312. [WOS]
- QIU, Z.P. - WANG, X.J. Several solution methods for the generalized complex eigenvalue problem with bounded uncertainties. INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES. ISSN 0020-7683, MAY 2005, vol. 42, no. 9-10, p. 2883-2900. [WOS]
- QIU, Z.P. - MULLER, P.C. - FROMMER, A. An approximate method for the standard interval eigenvalue problem of real non-symmetric interval matrices. COMMUNICATIONS IN NUMERICAL METHODS IN ENGINEERING. ISSN 1069-8299, APR 2001, vol. 17, no. 4, p. 239-251. [WOS]
- CHEN, S.H. - QIU, Z.P. - SONG, D.T. A NEW METHOD FOR COMPUTING THE UPPER AND LOWER BOUNDS ON FREQUENCIES OF STRUCTURES WITH INTERVAL PARAMETERS. MECHANICS RESEARCH COMMUNICATIONS. ISSN 0093-6413, SEP-OCT 1995, vol. 22, no. 5, p. 431-439. [WOS]
- SEIF, N.P. - HASHEM, S. - DEIF, A.S. BOUNDING THE EIGENVECTORS FOR SYMMETRICAL INTERVAL MATRICES. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1992, vol. 72, no. 3, p. 233-236. [WOS]
- GAO, W. Interval finite element analysis using interval factor method. COMPUTATIONAL MECHANICS. ISSN 0178-7675, MAY 2007, vol. 39, no. 6, p. 709-717. [WOS]
- WAN, C. - WANG, H.B. Uncertainty-aware QoS description and selection model for web services. 2007 IEEE International Conference on Services Computing, Proceedings. 2007, p. 154-161. [WOS]
- GAO, W. - ZHANG, N. - MA, J. - WANG, X.B. Interval dynamic response analysis of structures with interval parameters. PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE. ISSN 0954-4062, MAR 2008, vol. 222, no. 3, p. 377-385. [WOS]
- QIU, Z.P. - HU, J.X. - YANG, H.L. - LU, Q.S. Exact bounds for the sensitivity analysis of structures with uncertain-but-bounded parameters. APPLIED MATHEMATICAL MODELLING. ISSN 0307-904X, JUN 2008, vol. 32, no. 6, p. 1143-1157. [WOS]



- QIU, Z.P. - WANG, X.J. Solution theorems for the standard eigenvalue problem of structures with uncertain-but-bounded parameters. JOURNAL OF SOUND AND VIBRATION. ISSN 0022-460X, APR 6 2005, vol. 282, no. 1-2, p. 381-399. [WOS]
- LENG, H.N. - HE, Z.Q. Computation of bounds for eigenvalues of structures with interval parameters. APPLIED MATHEMATICS AND COMPUTATION. ISSN 0096-3003, JUL 1 2010, vol. 216, no. 9, p. 2734-2739. [WOS]

**Rohn, Jiří**

Formulae for Exact Bounds on Solutions of Linear Systems with Rank One Perturbations. Freiburg : Albert-Ludwigs-Universitaet, 1987, s. 1-20. - (Freiburger Interval Berichte, 87/6)

Citováno: 1

- HUDAK, D. ON THE DETERMINATION OF THE INTERVAL HULL OF LINEAR INTERVAL EQUATIONS. COMPUTING. ISSN 0010-485X, 1991, vol. 46, no. 3, p. 253-263. [WOS]

**1986**


**Rohn, Jiří**

Inner Solutions of Linear Interval Systems.

*Interval Mathematics 1985*. Berlin : SpringerVerlag, 1986 - (Nickel, K.) s. 157-158.

ISBN 3-540-16437-5. - (Lecture Notes in Computer Science. 212).

[Interval Mathematics 1985. Freiburg (DD), 23.09.1985-26.09.1985]

 [DOI: 10.1007/3-540-16437-5\\_15](https://doi.org/10.1007/3-540-16437-5_15)

Citováno: 11

- MAYER, G. On regular and singular interval systems. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2007, vol. 199, no. 2, Sp. Iss. SI, p. 220-228. [WOS]
- CHEN, R. - WARD, A.C. Generalizing interval matrix operations for design. JOURNAL OF MECHANICAL DESIGN. ISSN 1050-0472, MAR 1997, vol. 119, no. 1, p. 65-72. [WOS]
- SHARY, S.P. SOLVING THE LINEAR INTERVAL TOLERANCE PROBLEM. MATHEMATICS AND COMPUTERS IN SIMULATION. ISSN 0378-4754, NOV 8 1995, vol. 39, no. 1-2, p. 53-85. [WOS]
- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]
- KELLING, B. GEOMETRIC ANALYSIS OF BOUNDED SOLUTION SETS OF SYSTEMS OF LINEAR INTERVAL EQUATIONS. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1994, vol. 74, no. 12, p. 625-628. [WOS]
- LAKEEV, A.V. - NOSKOV, S.I. ON THE SOLUTION SET OF A LINEAR-EQUATION WITH THE RIGHT-HAND SIDE AND OPERATOR GIVEN BY INTERVALS. SIBERIAN MATHEMATICAL JOURNAL. ISSN 0037-4466, SEP-OCT 1994, vol. 35, no. 5, p. 957-966. [WOS]
- MAYER, G. Direct Methods for Linear Systems with Inexact Input Data. JAPAN JOURNAL OF INDUSTRIAL AND APPLIED MATHEMATICS. ISSN 0916-7005, OCT 2009, vol. 26, no. 2-3, Sp. Iss. SI, p. 279-296. [WOS]
- LORDELO, A.D.S. - FERREIRA, P.A.V. Interval analysis and design of robust pole assignment controllers. PROCEEDINGS OF THE 41ST IEEE CONFERENCE ON DECISION AND CONTROL, VOLS 1-4.

ISSN 0191-2216, 2002, p. 1461-1466. [WOS]

--- LORDELO, A.D.S. - FERREIRA, P.A.V. Linear controller design by goal programming. 2002 IEEE INTERNATIONAL SYMPOSIUM ON COMPUTER AIDED CONTROL SYSTEM DESIGN PROCEEDINGS. 2002, p. 145-150. [WOS]

--- SHARY, S.P. An interval linear tolerance problem. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, OCT 2004, vol. 65, no. 10, p. 1653-1666. [WOS]

--- LAKEEV, A.V. - NOSKOV, S.I. THE DESCRIPTION OF SET OF SOLUTIONS FOR THE LINEAR-EQUATION WITH INTERVAL OPERATOR AND RIGHT PART. DOKLADY AKADEMII NAUK. ISSN 0869-5652, JUN 1993, vol. 330, no. 4, p. 430-433. [WOS]

## **1985**

### **Rohn, Jiří**

Miscellaneous Results on Linear Interval Systems.

Freiburg : Albert-Ludwigs-Universitaet, 1985, s. 29-43. - (Freiburger Interval Berichte, 85/9)

Citováno: 1

--- MRAZ, F. Calculating the exact bounds of optimal values in LP with interval coefficients. ANNALS OF OPERATIONS RESEARCH. ISSN 0254-5330, 1998, vol. 81, p. 51-62. [WOS]

### **Rohn, Jiří**

On the Interval Hull of the Solution Set of an Interval Linear System.

Freiburg : Albert-Ludwigs-Universitaet, 1985, s. 47-57. - (Freiburger Interval Berichte, 81/5)

Citováno: 1

--- WOLFE, M.A. Interval mathematics, algebraic equations and optimization. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, DEC 1 2000, vol. 124, no. 1-2, p. 263-280. [WOS]

### **Rohn, Jiří**

Some Results on Interval Linear Systems.

Freiburg : Albert-Ludwigs-Universitaet, 1985, s. 93-116. - (Freiburger Interval Berichte, 85/4)

Citováno: 1

--- NEUMAIER, A. LINEAR INTERVAL EQUATIONS. LECTURE NOTES IN COMPUTER SCIENCE. ISSN 0302-9743, 1986, vol. 212, p. 109-120. [WOS]

## **1984**

### **Rohn, Jiří**

Interval Linear Systems.

Freiburg : Albert-Ludwigs-Universitaet, 1984, s. 33-58. - (Freiburger Interval Berichte, 84/7)

Citováno: 7

--- MRAZ, F. Calculating the exact bounds of optimal values in LP with interval coefficients. ANNALS OF OPERATIONS RESEARCH. ISSN 0254-5330, 1998, vol. 81, p. 51-62. [WOS]

- ALEFELD, G. - KREINOVICH, V. - MAYER, G. On the shape of the symmetric, persymmetric, and skew-symmetric solution set. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, JUL 1997, vol. 18, no. 3, p. 693-705. [WOS]
- ALEFELD, G. - MAYER, G. On the solution set of symmetric interval systems. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1996, vol. 76, p. 259-262. [WOS]
- ALEFELD, G. - MAYER, G. ON THE SYMMETRICAL AND UNSYMMETRIC SOLUTION SET OF INTERVAL SYSTEMS. SIAM JOURNAL ON MATRIX ANALYSIS AND APPLICATIONS. ISSN 0895-4798, OCT 1995, vol. 16, no. 4, p. 1223-1240. [WOS]
- NEUMAIER, A. LINEAR INTERVAL EQUATIONS. LECTURE NOTES IN COMPUTER SCIENCE. ISSN 0302-9743, 1986, vol. 212, p. 109-120. [WOS]
- ALEFELD, G. - KREINOVICH, V. - MAYER, G. The shape of the solution set for systems of interval linear equations with dependent coefficients. MATHEMATISCHE NACHRICHTEN. ISSN 0025-584X, 1998, vol. 192, p. 23-36. [WOS]
- ALEFELD, G. - KREINOVICH, V. - MAYER, G. On symmetric solution sets. INCLUSION METHODS FOR NONLINEAR PROBLEMS - WITH APPLICATIONS IN ENGINEERING, ECONOMICS AND PHYSICS. ISSN 0344-8029, 2003, vol. 16, p. 1-22. [WOS]

**Rohn, Jiří**

Proofs to "Solving Interval Linear Systems".

Freiburg : Albert-Ludwigs-Universitaet, 1984, s. 17-30. - (Freiburger Interval Berichte, 84/7)

Citováno: 2

- NEUMAIER, A. LINEAR INTERVAL EQUATIONS. LECTURE NOTES IN COMPUTER SCIENCE. ISSN 0302-9743, 1986, vol. 212, p. 109-120. [WOS]
- JANSSON, C. INTERVAL LINEAR-SYSTEMS WITH SYMMETRICAL MATRICES, SKEW-SYMMETRICAL MATRICES AND DEPENDENCIES IN THE RIGHT HAND SIDE. COMPUTING. ISSN 0010-485X, 1991, vol. 46, no. 3, p. 265-274. [WOS]

**Rohn, Jiří**

Solving Interval Linear Systems.

Freiburg : Albert-Ludwigs-Universitaet, 1984, s. 1-14. - (Freiburger Interval Berichte, 84/7)

Citováno: 4

- JANSSON, C. Calculation of exact bounds for the solution set of linear interval systems. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 15 1997, vol. 251, p. 321-340. [WOS]
- JANSSON, C. INTERVAL LINEAR-SYSTEMS WITH SYMMETRICAL MATRICES, SKEW-SYMMETRICAL MATRICES AND DEPENDENCIES IN THE RIGHT HAND SIDE. COMPUTING. ISSN 0010-485X, 1991, vol. 46, no. 3, p. 265-274. [WOS]
- NEUMAIER, A. LINEAR INTERVAL EQUATIONS. LECTURE NOTES IN COMPUTER SCIENCE. ISSN 0302-9743, 1986, vol. 212, p. 109-120. [WOS]
- HUDAK, D. ON THE DETERMINATION OF THE INTERVAL HULL OF LINEAR INTERVAL EQUATIONS. COMPUTING. ISSN 0010-485X, 1991, vol. 46, no. 3, p. 253-263. [WOS]

## 1982

**Rohn, Jiří**

An Algorithm for Solving Interval Linear Systems and Inverting Interval Matrices.

Freiburg : Albert-Ludwigs-Universitaet, 1982, s. 23-36. - (Freiburger Interval Berichte, 82/5)

Citováno: 5

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

--- NEUMAIER, A. LINEAR INTERVAL EQUATIONS. LECTURE NOTES IN COMPUTER SCIENCE. ISSN 0302-9743, 1986, vol. 212, p. 109-120. [WOS]

--- NEUMAIER, A. NEW TECHNIQUES FOR THE ANALYSIS OF LINEAR INTERVAL EQUATIONS. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, 1984, vol. 58, no. APR, p. 273-325. [WOS]

--- DEIF, A.S. THE INTERVAL EIGENVALUE PROBLEM. ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK. ISSN 0044-2267, 1991, vol. 71, no. 1, p. 61-64. [WOS]

--- FICHTNER, G. - GRUHN, G. APPLICATION OF INTERVALMATHEMATICAL METHODS IN CHEMICAL-ENGINEERING. CHEMISCHE TECHNIK. ISSN 0045-6519, MAR 1990, vol. 42, no. 3, p. 93-97. [WOS]

## 1981

**Rohn, Jiří**

Interval linear systems with prescribed column sums.

*Linear Algebra and Its Applications*. Roč. 39, - (1981), s. 143-148. ISSN 0024-3795

[DOI: 10.1016/0024-3795\(81\)90298-6](https://doi.org/10.1016/0024-3795(81)90298-6)

Citováno: 2

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

--- LORENZEN, G. - MAAS, C. ON INPUT-OUTPUT-ANALYSIS WITH INTERVAL DATA. JAHRBUCHER FUR NATIONALOKONOMIE UND STATISTIK. ISSN 0021-4027, JUL 1989, vol. 206, no. 3, p. 257-263. [WOS]

**Rohn, Jiří**

Strong Solvability of Interval Linear Programming Problems.

*Computing*. Roč. 26, č. 1 (1981), s. 79-82. ISSN 0010-485X

[DOI: 10.1007/BF02243426](https://doi.org/10.1007/BF02243426)

Citováno: 6

--- TANAKA, Y. Solution convexity of a system of linear interval equations. INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE. ISSN 0020-7721, DEC 1995, vol. 26, no. 12, p. 2429-2434. [WOS]

--- CHEN, R. - WARD, A.C. THE RANGE FAMILY OF PROPAGATION OPERATIONS FOR INTERVALS ON SIMULTANEOUS LINEAR-EQUATIONS. AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING. ISSN 0890-0604, JUN 1995, vol. 9, no. 3, p. 183-196. [WOS]

- LODWICK, W.A. ANALYSIS OF STRUCTURE IN FUZZY LINEAR-PROGRAMS. FUZZY SETS AND SYSTEMS. ISSN 0165-0114, OCT 25 1990, vol. 38, no. 1, p. 15-26. [WOS]
- CECHLAROVA, K. - CUNINGHAME-GREEN, R.A. Interval systems of max-separable linear equations. LINEAR ALGEBRA AND ITS APPLICATIONS. ISSN 0024-3795, JAN 1 2002, vol. 340, p. 215-224. [WOS]
- HANSEN, E.R. - WALSTER, G.W. NONLINEAR EQUATIONS AND OPTIMIZATION. COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, MAY-JUN 1993, vol. 25, no. 10-11, p. 125-145. [WOS]
- LASSMANN, W. - ROGGE, R. COMPLEX-METHOD IN COMPUTER-AIDED PLANNING-OPTIMIZATION AND DECISION-MAKING. OR SPEKTRUM. ISSN 0171-6468, 1990, vol. 12, no. 1, p. 25-34. [WOS]

## 1980

### Rohn, Jiří

An Existence Theorem for Systems of Nonlinear Equations.

*ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*. Roč. 60 (1980), s. 345-345.

ISSN 0044-2267

 [DOI: 10.1002/zamm.19800600810](https://doi.org/10.1002/zamm.19800600810)

Citováno: 5

- ALEFELD, O. - FROMMER, A. - HEINDL, G. - MAYER, J. On the existence theorems of Kantorovich, Miranda and Borsuk. ELECTRONIC TRANSACTIONS ON NUMERICAL ANALYSIS. ISSN 1068-9613, 2004, vol. 17, p. 102-111. [WOS]
- MAYER, J. A generalized Theorem of Miranda and the Theorem of Newton-Kantorovich. NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION. ISSN 0163-0563, MAY-JUN 2002, vol. 23, no. 3-4, p. 333-357. [WOS]
- HUANG, Z.Y. A new convergence result for fixed-point iteration in bounded interval of  $R^n$ . COMPUTERS & MATHEMATICS WITH APPLICATIONS. ISSN 0898-1221, DEC 1997, vol. 34, no. 12, p. 33-36. [WOS]
- WANG, J. - CHEN, J. - WU, X.L. On the Sum Rate of Gaussian Multiterminal Source Coding: New Proofs and Results. IEEE TRANSACTIONS ON INFORMATION THEORY. ISSN 0018-9448, AUG 2010, vol. 57, no. 8, p. 3946-3960. [WOS]
- WANG, J. - CHEN, J. On the Sum Rate of Vector Gaussian Multiterminal Source Coding. 2010 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY. 2010, p. 46-50. [WOS]

### Rohn, Jiří

Input-output model with interval data.

*Econometrica*. Roč. 48, - (1980), s. 767-769. ISSN 0012-9682

 [DOI: 10.2307/1913136](https://doi.org/10.2307/1913136)

Citováno: 5

- SHARY, S.P. An interval linear tolerance problem. AUTOMATION AND REMOTE CONTROL. ISSN 0005-1179, OCT 2004, vol. 65, no. 10, p. 1653-1666. [WOS]
- SHARY, S.P. SOLVING THE LINEAR INTERVAL TOLERANCE PROBLEM. MATHEMATICS AND COMPUTERS IN SIMULATION. ISSN 0378-4754, NOV 8 1995, vol. 39, no. 1-2, p. 53-85. [WOS]
- WEWEL, M.C. ECONOMETRIC MODELING WITH INTERVAL-COEFFICIENTS - A NONSTOCHASTIC APPROACH. SYSTEMS ANALYSIS MODELLING SIMULATION. ISSN 0232-9298, 1990, vol. 7, no. 11-

12, p. 897-906. [WOS]

--- LORENZEN, G. - MAAS, C. ON INPUT-OUTPUT-ANALYSIS WITH INTERVAL DATA. JAHRBUCHER FUR NATIONALOKONOMIE UND STATISTIK. ISSN 0021-4027, JUL 1989, vol. 206, no. 3, p. 257-263. [WOS]

--- WOLSKY, A.M. DISAGGREGATING INPUT-OUTPUT MODELS. REVIEW OF ECONOMICS AND STATISTICS. ISSN 0034-6535, 1984, vol. 66, no. 2, p. 283-291. [WOS]

### **Rohn, Jiří**

Duality in Interval Linear Programming.

*Interval Mathematics 1980*. New York : Academic Press, 1980 - (Nickel, K.) s. 521-529.

ISBN 0-12-518850-1.

[Interval Mathematics 1980. Freiburg (DD), 27.05.1980-31.05.1980]

Citováno: 3

--- WU, H.C. Duality Theory in Interval-Valued Linear Programming Problems. JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS. ISSN 0022-3239, AUG 2011, vol. 150, no. 2, p. 298-316. [WOS]

--- MRAZ, F. Calculating the exact bounds of optimal values in LP with interval coefficients. ANNALS OF OPERATIONS RESEARCH. ISSN 0254-5330, 1998, vol. 81, p. 51-62. [WOS]

--- LODWICK, W.A. ANALYSIS OF STRUCTURE IN FUZZY LINEAR-PROGRAMS. FUZZY SETS AND SYSTEMS. ISSN 0165-0114, OCT 25 1990, vol. 38, no. 1, p. 15-26. [WOS]

## **1978**

### **Rohn, Jiří**

Input-Output Planning with Inexact Data.

Freiburg : Albert-Ludwigs-Universitaet, 1978, s. 1-16. - (Freiburger Interval Berichte, 78/9)

Citováno: 5

--- SHARY, S.P. SOLVING THE LINEAR INTERVAL TOLERANCE PROBLEM. MATHEMATICS AND COMPUTERS IN SIMULATION. ISSN 0378-4754, NOV 8 1995, vol. 39, no. 1-2, p. 53-85. [WOS]

--- RAMIK, J. - RIMANEK, J. A SYSTEM OF LINEAR INEQUALITIES WITH INEXACT COEFFICIENTS. EKONOMICKO-MATEMATICKY OBZOR. ISSN 0013-3027, 1983, vol. 19, no. 4, p. 412-426. [WOS]

--- MAYER, G. On regular and singular interval systems. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS. ISSN 0377-0427, FEB 15 2007, vol. 199, no. 2, Sp. Iss. SI, p. 220-228. [WOS]

--- LORENZEN, G. - MAAS, C. ON INPUT-OUTPUT-ANALYSIS WITH INTERVAL DATA. JAHRBUCHER FUR NATIONALOKONOMIE UND STATISTIK. ISSN 0021-4027, JUL 1989, vol. 206, no. 3, p. 257-263. [WOS]

--- SHARY, S.P. A New Method for Inner Estimation of Solution Sets to Interval Linear Systems. MODELING, DESIGN, AND SIMULATION OF SYSTEMS WITH UNCERTAINTIES. 2011, p. 21-42. [WOS]