

Volker Mehrmann

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/24566/volker-mehrmann-publications-by-year.pdf>

Version: 2024-04-24

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

188
papers

4,768
citations

36
h-index

59
g-index

197
ext. papers

5,424
ext. citations

1.7
avg, IF

5.86
L-index

#	Paper	IF	Citations
188	Structure-Preserving Interpolatory Model Reduction for Port-Hamiltonian Differential-Algebraic Systems 2022 , 235-254		1
187	The Multiplex Decomposition: An Analytic Framework for Multilayer Dynamical Networks. <i>SIAM Journal on Applied Dynamical Systems</i> , 2021 , 20, 1752-1772	2.8	2
186	Port-Hamiltonian formulations of poroelastic network models. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2021 , 27, 429-452	1	2
185	Distance problems for dissipative Hamiltonian systems and related matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2021 , 623, 335-366	0.9	3
184	Nonlinear optimization of district heating networks. <i>Optimization and Engineering</i> , 2021 , 22, 783-819	2.1	10
183	Structured Backward Errors for Eigenvalues of Linear Port-Hamiltonian Descriptor Systems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2021 , 42, 1-16	1.5	1
182	Optimal robustness of passive discrete-time systems. <i>IMA Journal of Mathematical Control and Information</i> , 2020 , 37, 1248-1269	1.1	
181	Approximation of stability radii for large-scale dissipative Hamiltonian systems. <i>Advances in Computational Mathematics</i> , 2020 , 46, 1	1.6	1
180	Optimal Robustness of Port-Hamiltonian Systems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2020 , 41, 134-151	1.5	7
179	Port-Hamiltonian Modeling of District Heating Networks. <i>Differential-algebraic Equations Forum</i> , 2020 , 333-355	0.6	7
178	Computation of the Analytic Center of the Solution Set of the Linear Matrix Inequality Arising in Continuous- and Discrete-Time Passivity Analysis. <i>Vietnam Journal of Mathematics</i> , 2020 , 48, 633-659	0.5	0
177	Stability Assessment of Stochastic Differential-Algebraic Systems via Lyapunov Exponents with an Application to Power Systems. <i>Mathematics</i> , 2020 , 8, 1393	2.3	1
176	A Robust Iterative Scheme for Symmetric Indefinite Systems. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, A1733-A1752	2.6	
175	Length realizability for pairs of quasi-commuting matrices. <i>Linear Algebra and Its Applications</i> , 2019 , 568, 135-154	0.9	12
174	Structure-preserving discretization for port-Hamiltonian descriptor systems 2019 ,		14
173	Model reduction techniques for port-Hamiltonian differential-algebraic systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019 , 19, e201900040	0.2	4
172	Robust port-Hamiltonian representations of passive systems. <i>Automatica</i> , 2019 , 100, 182-186	5.7	18

171	On Structure-Preserving Model Reduction for Damped Wave Propagation in Transport Networks. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A331-A365	2.6	30
170	Computing the nearest stable matrix pairs. <i>Numerical Linear Algebra With Applications</i> , 2018 , 25, e2153	1.6	12
169	The Shifted Proper Orthogonal Decomposition: A Mode Decomposition for Multiple Transport Phenomena. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A1322-A1344	2.6	49
168	Error Analysis and Model Adaptivity for Flows in Gas Networks. <i>Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica</i> , 2018 , 26, 231-266	0.4	1
167	Model and Discretization Error Adaptivity Within Stationary Gas Transport Optimization. <i>Vietnam Journal of Mathematics</i> , 2018 , 46, 779-801	0.5	7
166	Linear Algebra Properties of Dissipative Hamiltonian Descriptor Systems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2018 , 39, 1489-1519	1.5	15
165	Linear port-Hamiltonian descriptor systems. <i>Mathematics of Control, Signals, and Systems</i> , 2018 , 30, 1	1.3	37
164	Regular solutions of DAE hybrid systems and regularization techniques. <i>BIT Numerical Mathematics</i> , 2018 , 58, 1049-1077	1.7	2
163	Model reduction for systems with inhomogeneous initial conditions. <i>Systems and Control Letters</i> , 2017 , 99, 99-106	2.4	26
162	State estimation for reactive Euler equation by Kalman Filtering. <i>CEAS Aeronautical Journal</i> , 2017 , 8, 261-270	1.3	1
161	Parameter-Dependent Rank-One Perturbations of Singular Hermitian Or Symmetric Pencils. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 72-95	1.5	12
160	Stability radii for real linear Hamiltonian systems with perturbed dissipation. <i>BIT Numerical Mathematics</i> , 2017 , 57, 811-843	1.7	11
159	On the Nearest Singular Matrix Pencil. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 776-806	1.5	14
158	Analysis and Decomposition for Improved Convergence of Nonlinear Process Models in Chemical Engineering. <i>Chemie-Ingenieur-Technik</i> , 2017 , 89, 1503-1514	0.8	7
157	Numerical solution of singularly perturbed convection-diffusion-reaction problems with two small parameters. <i>BIT Numerical Mathematics</i> , 2016 , 56, 51-76	1.7	62
156	Stability Radii for Linear Hamiltonian Systems with Dissipation Under Structure-Preserving Perturbations. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016 , 37, 1625-1654	1.5	29
155	A Newton-Type Method with Nonequivalence Deflation for Nonlinear Eigenvalue Problems Arising in Photonic Crystal Modeling. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, B191-B218	2.6	8
154	Analysis and numerical solution of linear delay differential-algebraic equations. <i>BIT Numerical Mathematics</i> , 2016 , 56, 633-657	1.7	13

153	Numerical methods for parametric model reduction in the simulation of disk brake squeal. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2016 , 96, 1388-1405	1	21
152	Eigenvalue perturbation theory of structured real matrices and their sign characteristics under generic structured rank-one perturbations. <i>Linear and Multilinear Algebra</i> , 2016 , 64, 527-556	0.7	6
151	An inverse-free ADI algorithm for computing Lagrangian invariant subspaces. <i>Numerical Linear Algebra With Applications</i> , 2016 , 23, 147-168	1.6	2
150	Lengths of quasi-commutative pairs of matrices. <i>Linear Algebra and Its Applications</i> , 2016 , 498, 450-470	0.9	5
149	On the sign characteristics of Hermitian matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2016 , 511, 328-364	0.9	10
148	Stability Analysis of Implicit Difference Equations Under Restricted Perturbations. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2015 , 36, 178-202	1.5	11
147	Möbius transformations of matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2015 , 470, 120-184	0.9	25
146	Upwind Based Parameter Uniform Convergence Analysis for Two Parametric Parabolic Convection Diffusion Problems by Moving Mesh Methods. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2015 , 15, 591-592	0.2	2
145	On the distance to singularity via low rank perturbations. <i>Operators and Matrices</i> , 2015 , 733-772	2.3	20
144	Numerical Linear Algebra Methods for Linear Differential-Algebraic Equations. <i>Differential-algebraic Equations Forum</i> , 2015 , 117-175	0.6	11
143	Eigenvalue perturbation theory of symplectic, orthogonal, and unitary matrices under generic structured rank one perturbations. <i>BIT Numerical Mathematics</i> , 2014 , 54, 219-255	1.7	18
142	An adaptive finite element method with asymptotic saturation for eigenvalue problems. <i>Numerische Mathematik</i> , 2014 , 128, 615-634	2.2	4
141	Efficient integration of strangeness-free non-stiff differential-algebraic equations by half-explicit methods. <i>Journal of Computational and Applied Mathematics</i> , 2014 , 262, 346-360	2.4	4
140	Solution of large scale parametric eigenvalue problems arising from brake squeal modeling. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 891-892	0.2	4
139	Analysis of Linear Variable Coefficient Delay Differential-Algebraic Equations. <i>Journal of Dynamics and Differential Equations</i> , 2014 , 26, 889-914	1.3	7
138	Self-adjoint differential-algebraic equations. <i>Mathematics of Control, Signals, and Systems</i> , 2014 , 26, 47-76	3	4
137	A generalized structured doubling algorithm for the numerical solution of linear quadratic optimal control problems. <i>Numerical Linear Algebra With Applications</i> , 2013 , 20, 112-137	1.6	1
136	Using permuted graph bases in control. <i>Automatica</i> , 2013 , 49, 1790-1797	5.7	4

135	NLEVP. <i>ACM Transactions on Mathematical Software</i> , 2013 , 39, 1-28	2.3	138
134	Operator Differential-Algebraic Equations Arising in Fluid Dynamics. <i>Computational Methods in Applied Mathematics</i> , 2013 , 13, 443-470	1.2	14
133	Matrices that commute with their derivative. On a letter from Schur to Wielandt. <i>Linear Algebra and Its Applications</i> , 2013 , 438, 2574-2590	0.9	4
132	Skew-symmetric matrix polynomials and their Smith forms. <i>Linear Algebra and Its Applications</i> , 2013 , 438, 4625-4653	0.9	25
131	Stability and Robust Stability of Linear Time-Invariant Delay Differential-Algebraic Equations. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2013 , 34, 1631-1654	1.5	35
130	On best rank one approximation of tensors. <i>Numerical Linear Algebra With Applications</i> , 2013 , 20, 942-955	6	16
129	Backward errors for eigenvalues and eigenvectors of Hermitian, skew-Hermitian, H-even and H-odd matrix polynomials. <i>Linear and Multilinear Algebra</i> , 2013 , 61, 1244-1266	0.7	4
128	Jordan forms of real and complex matrices under rank one perturbations. <i>Operators and Matrices</i> , 2013 , 381-398	2.3	20
127	Robust Stability of Differential-Algebraic Equations 2013 , 63-95		7
126	An implicitly-restarted Krylov subspace method for real symmetric/skew-symmetric eigenproblems. <i>Linear Algebra and Its Applications</i> , 2012 , 436, 4070-4087	0.9	18
125	Perturbation theory of selfadjoint matrices and sign characteristics under generic structured rank one perturbations. <i>Linear Algebra and Its Applications</i> , 2012 , 436, 4027-4042	0.9	21
124	Calculation of high-dimensional probability density functions of stochastically excited nonlinear mechanical systems. <i>Nonlinear Dynamics</i> , 2012 , 67, 2089-2099	5	22
123	Doubling Algorithms with Permuted Lagrangian Graph Bases. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2012 , 33, 780-805	1.5	12
122	Chapter 2: Regularization of Linear and Nonlinear Descriptor Systems 2012 , 17-36		14
121	Approximation of Spectral Intervals and Leading Directions for Differential-Algebraic Equation via Smooth Singular Value Decompositions. <i>SIAM Journal on Numerical Analysis</i> , 2011 , 49, 1810-1835	2.4	10
120	Perturbation Theory for Hamiltonian Matrices and the Distance to Bounded-Realness. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2011 , 32, 484-514	1.5	38
119	Robust formulas for optimal H _∞ controllers. <i>Automatica</i> , 2011 , 47, 2639-2646	5.7	12
118	QR methods and error analysis for computing Lyapunov and Sacker-Bell spectral intervals for linear differential-algebraic equations. <i>Advances in Computational Mathematics</i> , 2011 , 35, 281-322	1.6	12

117	An adaptive homotopy approach for non-selfadjoint eigenvalue problems. <i>Numerische Mathematik</i> , 2011 , 119, 557-583	2.2	14
116	Adaptive computation of smallest eigenvalues of self-adjoint elliptic partial differential equations. <i>Numerical Linear Algebra With Applications</i> , 2011 , 18, 387-409	1.6	22
115	Eigenvalue perturbation theory of classes of structured matrices under generic structured rank one perturbations. <i>Linear Algebra and Its Applications</i> , 2011 , 435, 687-716	0.9	40
114	Optimal Control for Linear Descriptor Systems with Variable Coefficients. <i>Lecture Notes in Electrical Engineering</i> , 2011 , 313-339	0.2	
113	Sparse approximate solution of partial differential equations. <i>Applied Numerical Mathematics</i> , 2010 , 60, 452-472	2.5	7
112	Jordan structures of alternating matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2010 , 432, 867-894	0.9	30
111	Singular-value-like decomposition for complex matrix triples. <i>Journal of Computational and Applied Mathematics</i> , 2010 , 233, 1245-1276	2.4	3
110	Error bounds for non-selfadjoint PDE eigenvalue problems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2010 , 10, 551-552	0.2	
109	Positivity inheritance for linear problems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2010 , 10, 597-598	0.2	
108	Perturbation analysis of Lagrangian invariant subspaces of symplectic matrices. <i>Linear and Multilinear Algebra</i> , 2009 , 57, 141-184	0.7	14
107	Numerical methods for palindromic eigenvalue problems: Computing the anti-triangular Schur form. <i>Numerical Linear Algebra With Applications</i> , 2009 , 16, 63-86	1.6	35
106	Lyapunov, Bohl and Sacker-Sell Spectral Intervals for Differential-Algebraic Equations. <i>Journal of Dynamics and Differential Equations</i> , 2009 , 21, 153-194	1.3	29
105	Adaptive solution of elliptic PDE-eigenvalue problems.. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009 , 9, 583-584	0.2	2
104	Hybrid systems of differential-algebraic equations [Analysis and numerical solution. <i>Journal of Process Control</i> , 2009 , 19, 1218-1228	3.9	25
103	A note on Potter's theorem for quasi-commutative matrices. <i>Linear Algebra and Its Applications</i> , 2009 , 430, 1812-1825	0.9	3
102	A new block method for computing the Hamiltonian Schur form. <i>Linear Algebra and Its Applications</i> , 2009 , 431, 350-368	0.9	13
101	Sparse solutions to underdetermined Kronecker product systems. <i>Linear Algebra and Its Applications</i> , 2009 , 431, 2437-2447	0.9	68
100	The Modified Optimal H_∞ Control Problem for Descriptor Systems. <i>SIAM Journal on Control and Optimization</i> , 2009 , 47, 2795-2811	1.9	18

99	Explicit Solutions for a Riccati Equation from Transport Theory. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009 , 30, 1339-1357	1.5	22
98	Controllability and Observability of Second Order Descriptor Systems. <i>SIAM Journal on Control and Optimization</i> , 2008 , 47, 1351-1379	1.9	19
97	Optimal control for unstructured nonlinear differential-algebraic equations of arbitrary index. <i>Mathematics of Control, Signals, and Systems</i> , 2008 , 20, 227-269	1.3	27
96	Generalisation of the PerronFrobenius theory to matrix pencils. <i>Linear Algebra and Its Applications</i> , 2008 , 428, 20-38	0.9	11
95	Ralph Byers 1955-2007. <i>Linear Algebra and Its Applications</i> , 2008 , 428, 2410-2414	0.9	
94	Trimmed linearizations for structured matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2008 , 429, 2373-2400	0.9	18
93	Numerical solution of hybrid systems of differential-algebraic equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 693-705	5.7	19
92	A robust numerical method for the iteration in H _∞ control. <i>Linear Algebra and Its Applications</i> , 2007 , 425, 548-570	0.9	27
91	A numerical method for computing the Hamiltonian Schur form. <i>Numerische Mathematik</i> , 2006 , 105, 375-412	2.2	36
90	Descriptor Systems: A General Mathematical Framework for Modelling, Simulation and Control (Deskriptorsysteme: Ein allgemeines mathematisches Konzept für Modellierung, Simulation und Regelung). <i>Automatisierungstechnik</i> , 2006 , 54, 405-415	0.8	14
89	Vector Spaces of Linearizations for Matrix Polynomials. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 971-1004	1.5	173
88	Structured Polynomial Eigenvalue Problems: Good Vibrations from Good Linearizations. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 1029-1051	1.5	182
87	Linear Perturbation Theory for Structured Matrix Pencils Arising in Control Theory. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 148-169	1.5	17
86	Transformation of high order linear differential-algebraic systems to first order. <i>Numerical Algorithms</i> , 2006 , 42, 281-307	2.1	20
85	Differential-Algebraic Equations 2006 ,		355
84	A Behavioral Approach to Time-Varying Linear Systems. Part 1: General Theory. <i>SIAM Journal on Control and Optimization</i> , 2005 , 44, 1725-1747	1.9	23
83	A Behavioral Approach to Time-Varying Linear Systems. Part 2: Descriptor Systems. <i>SIAM Journal on Control and Optimization</i> , 2005 , 44, 1748-1765	1.9	19
82	Multiple Shooting for Unstructured Nonlinear Differential-Algebraic Equations of Arbitrary Index. <i>SIAM Journal on Numerical Analysis</i> , 2005 , 42, 2277-2297	2.4	4

81	Skew-Hamiltonian and Hamiltonian Eigenvalue Problems: Theory, Algorithms and Applications 2005 , 3-39		22
80	Potter, Wielandt, and Drazin on the Matrix Equation $AB = \lambda BA$: New Answers to Old Questions. <i>American Mathematical Monthly</i> , 2004 , 111, 655-667	0.3	10
79	Numerical Solution of Structured Problems 2004 , 137-156		3
78	Nonlinear eigenvalue problems: a challenge for modern eigenvalue methods. <i>GAMM Mitteilungen</i> , 2004 , 27, 121-152	1.8	125
77	A robust numerical method for optimal H_2 control 2004 ,		2
76	Potter, Wielandt, and Drazin on the Matrix Equation $AB = \lambda BA$: New Answers to Old Questions. <i>American Mathematical Monthly</i> , 2004 , 111, 655	0.3	6
75	Symmetric collocation for unstructured nonlinear differential-algebraic equations of arbitrary index. <i>Numerische Mathematik</i> , 2004 , 98, 277-304	2.2	12
74	Index reduction for differential-algebraic equations by minimal extension. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2004 , 84, 579-597	1	30
73	On doubly structured matrices and pencils that arise in linear response theory. <i>Linear Algebra and Its Applications</i> , 2004 , 380, 3-51	0.9	7
72	Perturbed spectra of defective matrices. <i>Journal of Applied Mathematics</i> , 2003 , 2003, 115-140	1.1	3
71	Structure preservation: a challenge in computational control. <i>Future Generation Computer Systems</i> , 2003 , 19, 1243-1252	7.5	10
70	Numerical Solution of Quadratic Eigenvalue Problems with Structure-Preserving Methods. <i>SIAM Journal of Scientific Computing</i> , 2003 , 24, 1283-1302	2.6	23
69	A Note on the Symmetric Recursive Inverse Eigenvalue Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003 , 25, 180-187	1.5	4
68	Structured eigenvalue methods for the computation of corner singularities in 3D anisotropic elastic structures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002 , 191, 4459-4473	5.7	40
67	Perturbation Analysis for the Eigenvalue Problem of a Formal Product of Matrices. <i>BIT Numerical Mathematics</i> , 2002 , 42, 1-43	1.7	25
66	Numerical Computation of Deflating Subspaces of Skew-Hamiltonian/Hamiltonian Pencils. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 24, 165-190	1.5	59
65	Algebraic Multilevel Methods and Sparse Approximate Inverses. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 24, 191-218	1.5	11
64	Existence, Uniqueness, and Parametrization of Lagrangian Invariant Subspaces. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 23, 1045-1069	1.5	37

63	Analysis and Numerical Solution of Control Problems in Descriptor Form. <i>Mathematics of Control, Signals, and Systems</i> , 2001 , 14, 29-61	1.3	30
62	Analysis of Over- and Underdetermined Nonlinear Differential-Algebraic Systems with Application to Nonlinear Control Problems. <i>Mathematics of Control, Signals, and Systems</i> , 2001 , 14, 233-256	1.3	31
61	Perturbation Analysis of Hamiltonian Schur and Block-Schur Forms. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001 , 23, 387-424	1.5	26
60	Structure-Preserving Methods for Computing Eigenpairs of Large Sparse Skew-Hamiltonian/Hamiltonian Pencils. <i>SIAM Journal of Scientific Computing</i> , 2001 , 22, 1905-1925	2.6	89
59	Disturbance decoupling for linear time-invariant systems: a matrix pencil approach. <i>IEEE Transactions on Automatic Control</i> , 2001 , 46, 802-808	5.9	24
58	Numerical methods in control. <i>Journal of Computational and Applied Mathematics</i> , 2000 , 123, 371-394	2.4	15
57	On properties of Sylvester and Lyapunov operators. <i>Linear Algebra and Its Applications</i> , 2000 , 312, 35-71	0.9	16
56	Relations between Perron-Brobenius results for matrix pencils. <i>Linear Algebra and Its Applications</i> , 1999 , 287, 257-269	0.9	5
55	Schur-like forms for matrix Lie groups, Lie algebras and Jordan algebras. <i>Linear Algebra and Its Applications</i> , 1999 , 287, 11-39	0.9	8
54	Ludwig Elsner and his contributions to core, applied and numerical linear algebra. <i>Linear Algebra and Its Applications</i> , 1999 , 287, 3-10	0.9	
53	Minimum norm regularization of descriptor systems by mixed output feedback. <i>Linear Algebra and Its Applications</i> , 1999 , 296, 39-77	0.9	40
52	Feedback design for regularizing descriptor systems. <i>Linear Algebra and Its Applications</i> , 1999 , 299, 119-154	0.9	72
51	Canonical Forms for Hamiltonian and Symplectic Matrices and Pencils. <i>Linear Algebra and Its Applications</i> , 1999 , 302-303, 469-533	0.9	76
50	Disturbance decoupled observer design for descriptor systems. <i>Systems and Control Letters</i> , 1999 , 38, 37-48	2.4	26
49	SLICOTA Subroutine Library in Systems and Control Theory 1999 , 499-539		110
48	The Anderson Model of Localization: A Challenge for Modern Eigenvalue Methods. <i>SIAM Journal of Scientific Computing</i> , 1999 , 20, 2089-2102	2.6	31
47	Numerical Methods for Linear Quadratic and H _∞ Control Problems 1999 , 203-222		9
46	A numerically stable, structure preserving method for computing the eigenvalues of real Hamiltonian or symplectic pencils. <i>Numerische Mathematik</i> , 1998 , 78, 329-358	2.2	91

45	Regular solutions of nonlinear differential-algebraic equations and their numerical determination. <i>Numerische Mathematik</i> , 1998 , 79, 581-600	2.2	34
44	Where is the nearest non-regular pencil?. <i>Linear Algebra and Its Applications</i> , 1998 , 285, 81-105	0.9	36
43	Choosing Poles So That the Single-Input Pole Placement Problem Is Well Conditioned. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1998 , 19, 664-681	1.5	21
42	. <i>IEEE Transactions on Automatic Control</i> , 1998 , 43, 1634-1637	5.9	
41	Dampening controllers via a Riccati equation approach. <i>IEEE Transactions on Automatic Control</i> , 1998 , 43, 1280-1284	5.9	8
40	Benchmarks for the numerical solution of algebraic Riccati equations. <i>IEEE Control Systems</i> , 1997 , 17, 18-28	2.9	26
39	Descriptor Systems Without Controllability at Infinity. <i>SIAM Journal on Control and Optimization</i> , 1997 , 35, 462-479	1.9	29
38	A New Software Package for Linear Differential-Algebraic Equations. <i>SIAM Journal of Scientific Computing</i> , 1997 , 18, 115-138	2.6	28
37	Regularization of Linear Descriptor Systems with Variable Coefficients. <i>SIAM Journal on Control and Optimization</i> , 1997 , 35, 117-133	1.9	27
36	The Matrix Sign Function Method and the Computation of Invariant Subspaces. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1997 , 18, 615-632	1.5	39
35	The linear quadratic optimal control problem for linear descriptor systems with variable coefficients. <i>Mathematics of Control, Signals, and Systems</i> , 1997 , 10, 247-264	1.3	37
34	A new method for computing the stable invariant subspace of a real Hamiltonian matrix. <i>Journal of Computational and Applied Mathematics</i> , 1997 , 86, 17-43	2.4	51
33	Generalized Inverses of Differential-Algebraic Operators. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1996 , 17, 426-442	1.5	10
32	A New Class of Discretization Methods for the Solution of Linear Differential-Algebraic Equations with Variable Coefficients. <i>SIAM Journal on Numerical Analysis</i> , 1996 , 33, 1941-1961	2.4	38
31	A step toward a unified treatment of continuous and discrete time control problems. <i>Linear Algebra and Its Applications</i> , 1996 , 241-243, 749-779	0.9	25
30	Minimization of the norm, the norm of the inverse and the condition number of a matrix by completion. <i>Numerical Linear Algebra With Applications</i> , 1995 , 2, 155-171	1.6	11
29	Canonical forms for linear differential-algebraic equations with variable coefficients. <i>Journal of Computational and Applied Mathematics</i> , 1994 , 56, 225-251	2.4	62
28	A new look at pencils of matrix valued functions. <i>Linear Algebra and Its Applications</i> , 1994 , 212-213, 215-248	1.9	16

27	. <i>IEEE Transactions on Automatic Control</i> , 1994 , 39, 1742-1748	5.9	51
26	Numerical Methods for Simultaneous Diagonalization. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1993 , 14, 927-949	1.5	92
25	Sign Controllability of a Nonnegative Matrix and a Positive Vector. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1993 , 14, 398-407	1.5	10
24	Divide and conquer methods for block tridiagonal systems. <i>Parallel Computing</i> , 1993 , 19, 257-279	1	16
23	A Chart of Numerical Methods for Structured Eigenvalue Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1992 , 13, 419-453	1.5	63
22	Regularization of Descriptor Systems by Derivative and Proportional State Feedback. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1992 , 13, 46-67	1.5	86
21	On Hamiltonian and symplectic Hessenberg forms. <i>Linear Algebra and Its Applications</i> , 1991 , 149, 55-72	0.9	47
20	Numerical computation of an analytic singular value decomposition of a matrix valued function. <i>Numerische Mathematik</i> , 1991 , 60, 1-39	2.2	97
19	Smooth factorizations of matrix valued functions and their derivatives. <i>Numerische Mathematik</i> , 1991 , 60, 115-131	2.2	19
18	A quaternion QR algorithm. <i>Numerische Mathematik</i> , 1989 , 55, 83-95	2.2	46
17	Linear Transformations which leave controllable multiinput descriptor systems controllable. <i>Linear Algebra and Its Applications</i> , 1989 , 120, 47-64	0.9	9
16	Existence, uniqueness, and stability of solutions to singular linear quadratic optimal control problems. <i>Linear Algebra and Its Applications</i> , 1989 , 121, 291-331	0.9	38
15	A Symplectic Orthogonal Method for Single Input or Single Output Discrete Time Optimal Quadratic Control Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1988 , 9, 221-247	1.5	34
14	. <i>IEEE Transactions on Automatic Control</i> , 1988 , 33, 695-698	5.9	31
13	Linear transformations which map the classes of \mathbb{H} -matrices and \mathbb{H} -matrices into or onto themselves. <i>Linear Algebra and Its Applications</i> , 1986 , 78, 79-106	0.9	2
12	A symplectic QR like algorithm for the solution of the real algebraic Riccati equation. <i>IEEE Transactions on Automatic Control</i> , 1986 , 31, 1104-1113	5.9	85
11	On some conjectures on the spectra of \mathbb{H} -matrices. <i>Linear and Multilinear Algebra</i> , 1984 , 16, 101-112	0.7	2
10	On the LU decomposition of V -matrices. <i>Linear Algebra and Its Applications</i> , 1984 , 61, 175-186	0.9	1

9	On classes of matrices containing M-matrices and hermitian positive semidefinite matrices. <i>Linear Algebra and Its Applications</i> , 1984 , 58, 217-234	0.9	9
8	On a generalized Fan inequality. <i>Linear Algebra and Its Applications</i> , 1984 , 58, 235-245	0.9	1
7	Incomplete Factorizations of Matrices and Connections with H-Matrices. <i>SIAM Journal on Numerical Analysis</i> , 1980 , 17, 787-793	2.4	31
6	Numerical solution of linear-quadratic control problems for descriptor systems		2
5	On the matrix sign function method for the computation of invariant subspaces		2
4	Smith forms of palindromic matrix polynomials. <i>Electronic Journal of Linear Algebra</i> ,22,	1.6	32
3	Analysis and reformulation of linear delay differential-algebraic equations. <i>Electronic Journal of Linear Algebra</i> ,23,	1.6	8
2	Hypocoercivity and controllability in linear semi-dissipative Hamiltonian ordinary differential equations and differential-algebraic equations. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> ,e202100171	1	0
1	Low-Rank Perturbation of Regular Matrix Pencils with Symmetry Structures. <i>Foundations of Computational Mathematics</i> ,1	2.7	1