Volker Mehrmann

List of Publications by Citations

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	Differential-Algebraic Equations **2006**,		355
187	Structured Polynomial Eigenvalue Problems: Good Vibrations from Good Linearizations. *SIAM Journal on Matrix Analysis and Applications*, **2006**, 28, 1029-1051	1.5	182
186	Vector Spaces of Linearizations for Matrix Polynomials. *SIAM Journal on Matrix Analysis and Applications*, **2006**, 28, 971-1004	1.5	173
185	NLEVP. *ACM Transactions on Mathematical Software*, **2013**, 39, 1-28	2.3	138
184	Nonlinear eigenvalue problems: a challenge for modern eigenvalue methods. *GAMM Mitteilungen*, **2004**, 27, 121-152	1.8	125
183	SLICOTA Subroutine Library in Systems and Control Theory **1999**, 499-539		110
182	Numerical computation of an analytic singular value decomposition of a matrix valued function. *Numerische Mathematik*, **1991**, 60, 1-39	2.2	97
181	Numerical Methods for Simultaneous Diagonalization. *SIAM Journal on Matrix Analysis and Applications*, **1993**, 14, 927-949	1.5	92
180	A numerically stable, structure preserving method for computing the eigenvalues of real Hamiltonian or symplectic pencils. *Numerische Mathematik*, **1998**, 78, 329-358	2.2	91
179	Structure-Preserving Methods for Computing Eigenpairs of Large Sparse Skew-Hamiltonian/Hamiltonian Pencils. *SIAM Journal of Scientific Computing*, **2001**, 22, 1905-1925	2.6	89
178	Regularization of Descriptor Systems by Derivative and Proportional State Feedback. *SIAM Journal on Matrix Analysis and Applications*, **1992**, 13, 46-67	1.5	86
177	A symplectic QR like algorithm for the solution of the real algebraic Riccati equation. *IEEE Transactions on Automatic Control*, **1986**, 31, 1104-1113	5.9	85
176	Canonical Forms for Hamiltonian and Symplectic Matrices and Pencils. *Linear Algebra and Its Applications*, **1999**, 302-303, 469-533	0.9	76
175	Feedback design for regularizing descriptor systems. *Linear Algebra and Its Applications*, **1999**, 299, 119-151	0.9	72
174	Sparse solutions to underdetermined Kronecker product systems. *Linear Algebra and Its Applications*, **2009**, 431, 2437-2447	0.9	68
173	A Chart of Numerical Methods for Structured Eigenvalue Problems. *SIAM Journal on Matrix Analysis and Applications*, **1992**, 13, 419-453	1.5	63
172	Numerical solution of singularly perturbed convection-diffusion-reaction problems with two small parameters. *BIT Numerical Mathematics*, **2016**, 56, 51-76	1.7	62

171	Canonical forms for linear differential-algebraic equations with variable coefficients. *Journal of Computational and Applied Mathematics*, **1994**, 56, 225-251	2.4	62
170	Numerical Computation of Deflating Subspaces of Skew-Hamiltonian/Hamiltonian Pencils. *SIAM Journal on Matrix Analysis and Applications*, **2002**, 24, 165-190	1.5	59
169	A new method for computing the stable invariant subspace of a real Hamiltonian matrix. *Journal of Computational and Applied Mathematics*, **1997**, 86, 17-43	2.4	51
168	. *IEEE Transactions on Automatic Control*, **1994**, 39, 1742-1748	5.9	51
167	The Shifted Proper Orthogonal Decomposition: A Mode Decomposition for Multiple Transport Phenomena. *SIAM Journal of Scientific Computing*, **2018**, 40, A1322-A1344	2.6	49
166	On Hamiltonian and symplectic Hessenberg forms. *Linear Algebra and Its Applications*, **1991**, 149, 55-72	0.9	47
165	A quaternion QR algorithm. *Numerische Mathematik*, **1989**, 55, 83-95	2.2	46
164	Eigenvalue perturbation theory of classes of structured matrices under generic structured rank one perturbations. *Linear Algebra and Its Applications*, **2011**, 435, 687-716	0.9	40
163	Structured eigenvalue methods for the computation of corner singularities in 3D anisotropic elastic structures. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 4459-4473	5.7	40
162	Minimum norm regularization of descriptor systems by mixed output feedback. *Linear Algebra and Its Applications*, **1999**, 296, 39-77	0.9	40
161	The Matrix Sign Function Method and the Computation of Invariant Subspaces. *SIAM Journal on Matrix Analysis and Applications*, **1997**, 18, 615-632	1.5	39
160	Perturbation Theory for Hamiltonian Matrices and the Distance to Bounded-Realness. *SIAM Journal on Matrix Analysis and Applications*, **2011**, 32, 484-514	1.5	38
159	A New Class of Discretization Methods for the Solution of Linear Differential-Algebraic Equations with Variable Coefficients. *SIAM Journal on Numerical Analysis*, **1996**, 33, 1941-1961	2.4	38
158	Existence, uniqueness, and stability of solutions to singular linear quadratic optimal control problems. *Linear Algebra and Its Applications*, **1989**, 121, 291-331	0.9	38
157	The linear quadratic optimal control problem for linear descriptor systems with variable coefficients. *Mathematics of Control, Signals, and Systems*, **1997**, 10, 247-264	1.3	37
156	Existence, Uniqueness, and Parametrization of Lagrangian Invariant Subspaces. *SIAM Journal on Matrix Analysis and Applications*, **2002**, 23, 1045-1069	1.5	37
155	Linear port-Hamiltonian descriptor systems. *Mathematics of Control, Signals, and Systems*, **2018**, 30, 1	1.3	37
154	Where is the nearest non-regular pencil?. *Linear Algebra and Its Applications*, **1998**, 285, 81-105	0.9	36

153	A numerical method for computing the Hamiltonian Schur form. *Numerische Mathematik*, **2006**, 105, 375-412	2.2	36
152	Stability and Robust Stability of Linear Time-Invariant Delay Differential-Algebraic Equations. *SIAM Journal on Matrix Analysis and Applications*, **2013**, 34, 1631-1654	1.5	35
151	Numerical methods for palindromic eigenvalue problems: Computing the anti-triangular Schur form. *Numerical Linear Algebra With Applications*, **2009**, 16, 63-86	1.6	35
150	Regular solutions of nonlinear differential-algebraic equations and their numerical determination. *Numerische Mathematik*, **1998**, 79, 581-600	2.2	34
149	A Symplectic Orthogonal Method for Single Input or Single Output Discrete Time Optimal Quadratic Control Problems. *SIAM Journal on Matrix Analysis and Applications*, **1988**, 9, 221-247	1.5	34
148	Smith forms of palindromic matrix polynomials. *Electronic Journal of Linear Algebra*,22,	1.6	32
147	Analysis of Over- and Underdetermined Nonlinear Differential-Algebraic Systems with Application to Nonlinear Control Problems. *Mathematics of Control, Signals, and Systems*, **2001**, 14, 233-256	1.3	31
146	The Anderson Model of Localization: A Challenge for Modern Eigenvalue Methods. *SIAM Journal of Scientific Computing*, **1999**, 20, 2089-2102	2.6	31
145	. *IEEE Transactions on Automatic Control*, **1988**, 33, 695-698	5.9	31
144	Incomplete Factorizations of Matrices and Connections with H-Matrices. *SIAM Journal on Numerical Analysis*, **1980**, 17, 787-793	2.4	31
143	On Structure-Preserving Model Reduction for Damped Wave Propagation in Transport Networks. *SIAM Journal of Scientific Computing*, **2018**, 40, A331-A365	2.6	30
142	Jordan structures of alternating matrix polynomials. *Linear Algebra and Its Applications*, **2010**, 432, 867-891	0.9	30
141	Index reduction for differential-algebraic equations by minimal extension. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2004**, 84, 579-597	1	30
140	Analysis and Numerical Solution of Control Problems in Descriptor Form. *Mathematics of Control, Signals, and Systems*, **2001**, 14, 29-61	1.3	30
139	Stability Radii for Linear Hamiltonian Systems with Dissipation Under Structure-Preserving Perturbations. *SIAM Journal on Matrix Analysis and Applications*, **2016**, 37, 1625-1654	1.5	29
138	Lyapunov, Bohl and Sacker-Sell Spectral Intervals for Differential-Algebraic Equations. *Journal of Dynamics and Differential Equations*, **2009**, 21, 153-194	1.3	29
137	Descriptor Systems Without Controllability at Infinity. *SIAM Journal on Control and Optimization*, **1997**, 35, 462-479	1.9	29
136	A New Software Package for Linear Differential-Algebraic Equations. *SIAM Journal of Scientific Computing*, **1997**, 18, 115-138	2.6	28

135	Regularization of Linear Descriptor Systems with Variable Coefficients. *SIAM Journal on Control and Optimization*, **1997**, 35, 117-133	1.9	27
134	A robust numerical method for the Riteration in H∞control. *Linear Algebra and Its Applications*, **2007**, 425, 548-570	0.9	27
133	Optimal control for unstructured nonlinear differential-algebraic equations of arbitrary index. *Mathematics of Control, Signals, and Systems*, **2008**, 20, 227-269	1.3	27
132	Model reduction for systems with inhomogeneous initial conditions. *Systems and Control Letters*, **2017**, 99, 99-106	2.4	26
131	Benchmarks for the numerical solution of algebraic Riccati equations. *IEEE Control Systems*, **1997**, 17, 18-28	2.9	26
130	Perturbation Analysis of Hamiltonian Schur and Block-Schur Forms. *SIAM Journal on Matrix Analysis and Applications*, **2001**, 23, 387-424	1.5	26
129	Disturbance decoupled observer design for descriptor systems. *Systems and Control Letters*, **1999**, 38, 37-48	2.4	26
128	MBius transformations of matrix polynomials. *Linear Algebra and Its Applications*, **2015**, 470, 120-184	0.9	25
127	Skew-symmetric matrix polynomials and their Smith forms. *Linear Algebra and Its Applications*, **2013** , 438, 4625-4653	0.9	25
126	Hybrid systems of differential-algebraic equations Analysis and numerical solution. *Journal of Process Control*, **2009**, 19, 1218-1228	3.9	25
125	Perturbation Analysis for the Eigenvalue Problem of a Formal Product of Matrices. *BIT Numerical Mathematics*, **2002**, 42, 1-43	1.7	25
124	A step toward a unified treatment of continuous and discrete time control problems. *Linear Algebra and Its Applications*, **1996**, 241-243, 749-779	0.9	25
123	Disturbance decoupling for linear time-invariant systems: a matrix pencil approach. *IEEE Transactions on Automatic Control*, **2001**, 46, 802-808	5.9	24
122	A Behavioral Approach to Time-Varying Linear Systems. Part 1: General Theory. *SIAM Journal on Control and Optimization*, **2005**, 44, 1725-1747	1.9	23
121	Numerical Solution of Quadratic Eigenvalue Problems with Structure-Preserving Methods. *SIAM Journal of Scientific Computing*, **2003**, 24, 1283-1302	2.6	23
120	Calculation of high-dimensional probability density functions of stochastically excited nonlinear mechanical systems. *Nonlinear Dynamics*, **2012**, 67, 2089-2099	5	22
119	Adaptive computation of smallest eigenvalues of self-adjoint elliptic partial differential equations. *Numerical Linear Algebra With Applications*, **2011**, 18, 387-409	1.6	22
118	Explicit Solutions for a Riccati Equation from Transport Theory. *SIAM Journal on Matrix Analysis and Applications*, **2009**, 30, 1339-1357	1.5	22

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116	Perturbation theory of selfadjoint matrices and sign characteristics under generic structured rank one perturbations. *Linear Algebra and Its Applications*, **2012**, 436, 4027-4042	0.9	21
115	Choosing Poles So That the Single-Input Pole Placement Problem Is Well Conditioned. *SIAM Journal on Matrix Analysis and Applications*, **1998**, 19, 664-681	1.5	21
114	Numerical methods for parametric model reduction in the simulation of disk brake squeal. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2016**, 96, 1388-1405	1	21
113	Transformation of high order linear differential-algebraic systems to first order. *Numerical Algorithms*, **2006**, 42, 281-307	2.1	20
112	Jordan forms of real and complex matrices under rank one perturbations. *Operators and Matrices*, **2013**, 381-398	2.3	20
111	On the distance to singularity via low rank perturbations. *Operators and Matrices*, **2015**, 733-772	2.3	20
110	Controllability and Observability of Second Order Descriptor Systems. *SIAM Journal on Control and Optimization*, **2008**, 47, 1351-1379	1.9	19
109	Numerical solution of hybrid systems of differential-algebraic equations. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 197, 693-705	5.7	19
108	A Behavioral Approach to Time-Varying Linear Systems. Part 2: Descriptor Systems. *SIAM Journal on Control and Optimization*, **2005**, 44, 1748-1765	1.9	19
107	Smooth factorizations of matrix valued functions and their derivatives. *Numerische Mathematik*, **1991**, 60, 115-131	2.2	19
106	Eigenvalue perturbation theory of symplectic, orthogonal, and unitary matrices under generic structured rank one perturbations. *BIT Numerical Mathematics*, **2014**, 54, 219-255	1.7	18
105	An implicitly-restarted Krylov subspace method for real symmetric/skew-symmetric eigenproblems. *Linear Algebra and Its Applications*, **2012**, 436, 4070-4087	0.9	18
104	The Modified Optimal $mathcal{H}_infty$ Control Problem for Descriptor Systems. *SIAM Journal on Control and Optimization*, **2009**, 47, 2795-2811	1.9	18
103	Trimmed linearizations for structured matrix polynomials. *Linear Algebra and Its Applications*, **2008**, 429, 2373-2400	0.9	18
102	Robust port-Hamiltonian representations of passive systems. *Automatica*, **2019**, 100, 182-186	5.7	18
101	Linear Perturbation Theory for Structured Matrix Pencils Arising in Control Theory. *SIAM Journal on Matrix Analysis and Applications*, **2006**, 28, 148-169	1.5	17
100	On best rank one approximation of tensors. *Numerical Linear Algebra With Applications*, **2013**, 20, 942-955	1.6	16

99	On properties of Sylvester and Lyapunov operators. *Linear Algebra and Its Applications*, **2000**, 312, 35-71	0.9	16
98	A new look at pencils of matrix valued functions. *Linear Algebra and Its Applications*, **1994**, 212-213, 215-248	0.9	16
97	Divide and conquer methods for block tridiagonal systems. *Parallel Computing*, **1993**, 19, 257-279	1	16
96	Numerical methods in control. *Journal of Computational and Applied Mathematics*, **2000**, 123, 371-394	2.4	15
95	Linear Algebra Properties of Dissipative Hamiltonian Descriptor Systems. *SIAM Journal on Matrix Analysis and Applications*, **2018**, 39, 1489-1519	1.5	15
94	Operator Differential-Algebraic Equations Arising in Fluid Dynamics. *Computational Methods in Applied Mathematics*, **2013**, 13, 443-470	1.2	14
93	On the Nearest Singular Matrix Pencil. *SIAM Journal on Matrix Analysis and Applications*, **2017**, 38, 776-806	1.5	14
92	Chapter 2: Regularization of Linear and Nonlinear Descriptor Systems **2012**, 17-36		14
91	An adaptive homotopy approach for non-selfadjoint eigenvalue problems. *Numerische Mathematik*, **2011**, 119, 557-583	2.2	14
90	Perturbation analysis of Lagrangian invariant subspaces of symplectic matrices. *Linear and Multilinear Algebra*, **2009**, 57, 141-184	0.7	14
89	Descriptor Systems: A General Mathematical Framework for Modelling, Simulation and Control (Deskriptorsysteme: Ein allgemeines mathematisches Konzept f□ Modellierung, Simulation und Regelung). *Automatisierungstechnik*, **2006**, 54, 405-415	0.8	14
88	Structure-preserving discretization for port-Hamiltonian descriptor systems **2019**,		14
87	Analysis and numerical solution of linear delay differential-algebraic equations. *BIT Numerical Mathematics*, **2016**, 56, 633-657	1.7	13
86	A new block method for computing the Hamiltonian Schur form. *Linear Algebra and Its Applications*, **2009**, 431, 350-368	0.9	13
85	Parameter-Dependent Rank-One Perturbations of Singular Hermitian Or Symmetric Pencils. *SIAM Journal on Matrix Analysis and Applications*, **2017**, 38, 72-95	1.5	12
84	Computing the nearest stable matrix pairs. *Numerical Linear Algebra With Applications*, **2018**, 25, e2153	1.6	12
83	Length realizability for pairs of quasi-commuting matrices. *Linear Algebra and Its Applications*, **2019**, 568, 135-154	0.9	12
82	Doubling Algorithms with Permuted Lagrangian Graph Bases. *SIAM Journal on Matrix Analysis and Applications*, **2012**, 33, 780-805	1.5	12

81	Robust formulas for optimal H∞ controllers. *Automatica*, **2011**, 47, 2639-2646	5.7	12
80	QR methods and error analysis for computing Lyapunov and Sacker-Bell spectral intervals for linear differential-algebraic equations. *Advances in Computational Mathematics*, **2011**, 35, 281-322	1.6	12
79	Symmetric collocation for unstructured nonlinear differential-algebraic equations of arbitrary index. *Numerische Mathematik*, **2004**, 98, 277-304	2.2	12
78	Stability radii for real linear Hamiltonian systems with perturbed dissipation. *BIT Numerical Mathematics*, **2017**, 57, 811-843	1.7	11
77	Stability Analysis of Implicit Difference Equations Under Restricted Perturbations. *SIAM Journal on Matrix Analysis and Applications*, **2015**, 36, 178-202	1.5	11
76	Generalisation of the Perron-Frobenius theory to matrix pencils. *Linear Algebra and Its Applications*, **2008**, 428, 20-38	0.9	11
75	Algebraic Multilevel Methods and Sparse Approximate Inverses. *SIAM Journal on Matrix Analysis and Applications*, **2002**, 24, 191-218	1.5	11
74	Minimization of the norm, the norm of the inverse and the condition number of a matrix by completion. *Numerical Linear Algebra With Applications*, **1995**, 2, 155-171	1.6	11
73	Numerical Linear Algebra Methods for Linear Differential-Algebraic Equations. *Differential-algebraic Equations Forum*, **2015**, 117-175	0.6	11
72	Approximation of Spectral Intervals and Leading Directions for Differential-Algebraic Equation via Smooth Singular Value Decompositions. *SIAM Journal on Numerical Analysis*, **2011**, 49, 1810-1835	2.4	10
71	Potter, Wielandt, and Drazin on the Matrix Equation AB = BA: New Answers to Old Questions. *American Mathematical Monthly*, **2004**, 111, 655-667	0.3	10
70	Structure preservation: a challenge in computational control. *Future Generation Computer Systems*, **2003**, 19, 1243-1252	7.5	10
69	Generalized Inverses of Differential-Algebraic Operators. *SIAM Journal on Matrix Analysis and Applications*, **1996**, 17, 426-442	1.5	10
68	Sign Controllability of a Nonnegative Matrix and a Positive Vector. *SIAM Journal on Matrix Analysis and Applications*, **1993**, 14, 398-407	1.5	10
67	On the sign characteristics of Hermitian matrix polynomials. *Linear Algebra and Its Applications*, **2016**, 511, 328-364	0.9	10
66	Nonlinear optimization of district heating networks. *Optimization and Engineering*, **2021**, 22, 783-819	2.1	10
65	Linear Transformations which leave controllable multiinput descriptor systems controllable. *Linear Algebra and Its Applications*, **1989**, 120, 47-64	0.9	9
64	On classes of matrices containing M-matrices and hermitian positive semidefinite matrices. *Linear Algebra and Its Applications*, **1984**, 58, 217-234	0.9	9

63	Numerical Methods for Linear Quadratic and H Control Problems **1999**, 203-222		9
62	A Newton-Type Method with Nonequivalence Deflation for Nonlinear Eigenvalue Problems Arising in Photonic Crystal Modeling. *SIAM Journal of Scientific Computing*, **2016**, 38, B191-B218	2.6	8
61	Dampening controllers via a Riccati equation approach. *IEEE Transactions on Automatic Control*, **1998**, 43, 1280-1284	5.9	8
60	Schur-like forms for matrix Lie groups, Lie algebras and Jordan algebras. *Linear Algebra and Its Applications*, **1999**, 287, 11-39	0.9	8
59	Analysis and reformulation of linear delay differential-algebraic equations. *Electronic Journal of Linear Algebra*,23,	1.6	8
58	Optimal Robustness of Port-Hamiltonian Systems. *SIAM Journal on Matrix Analysis and Applications*, **2020**, 41, 134-151	1.5	7
57	Analysis and Decomposition for Improved Convergence of Nonlinear Process Models in Chemical Engineering. *Chemie-Ingenieur-Technik*, **2017**, 89, 1503-1514	0.8	7
56	Analysis of Linear Variable Coefficient Delay Differential-Algebraic Equations. *Journal of Dynamics and Differential Equations*, **2014**, 26, 889-914	1.3	7
55	Sparse approximate solution of partial differential equations. *Applied Numerical Mathematics*, **2010**, 60, 452-472	2.5	7
54	On doubly structured matrices and pencils that arise in linear response theory. *Linear Algebra and Its Applications*, **2004**, 380, 3-51	0.9	7
53	Port-Hamiltonian Modeling of District Heating Networks. *Differential-algebraic Equations Forum*, **2020**, 333-355	0.6	7
52	Robust Stability of Differential-Algebraic Equations **2013**, 63-95		7
51	Model and Discretization Error Adaptivity Within Stationary Gas Transport Optimization. *Vietnam Journal of Mathematics*, **2018**, 46, 779-801	0.5	7
50	Potter, Wielandt, and Drazin on the Matrix Equation AB = wBA: New Answers to Old Questions. *American Mathematical Monthly*, **2004**, 111, 655	0.3	6
49	Eigenvalue perturbation theory of structured real matrices and their sign characteristics under generic structured rank-one perturbations. *Linear and Multilinear Algebra*, **2016**, 64, 527-556	0.7	6
48	Relations between Perron Frobenius results for matrix pencils. *Linear Algebra and Its Applications*, **1999**, 287, 257-269	0.9	5
47	Lengths of quasi-commutative pairs of matrices. *Linear Algebra and Its Applications*, **2016**, 498, 450-470	0.9	5
46	An adaptive finite element method with asymptotic saturation for eigenvalue problems. *Numerische Mathematik*, **2014**, 128, 615-634	2.2	4

45	Efficient integration of strangeness-free non-stiff differential-algebraic equations by half-explicit methods. *Journal of Computational and Applied Mathematics*, **2014**, 262, 346-360	2.4	4
44	Using permuted graph bases in control. *Automatica*, **2013**, 49, 1790-1797	5.7	4
43	Matrices that commute with their derivative. On a letter from Schur to Wielandt. *Linear Algebra and Its Applications*, **2013**, 438, 2574-2590	0.9	4
42	Solution of large scale parametric eigenvalue problems arising from brake squeal modeling. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 891-892	0.2	4
41	Self-adjoint differential-algebraic equations. *Mathematics of Control, Signals, and Systems*, **2014**, 26, 47-71	1.3	4
40	Backward errors for eigenvalues and eigenvectors of Hermitian, skew-Hermitian, H-even and H-odd matrix polynomials. *Linear and Multilinear Algebra*, **2013**, 61, 1244-1266	0.7	4
39	Multiple Shooting for Unstructured Nonlinear Differential-Algebraic Equations of Arbitrary Index. *SIAM Journal on Numerical Analysis*, **2005**, 42, 2277-2297	2.4	4
38	A Note on the Symmetric Recursive Inverse Eigenvalue Problem. *SIAM Journal on Matrix Analysis and Applications*, **2003**, 25, 180-187	1.5	4
37	Model reduction techniques for port-Hamiltonian differential-algebraic systems. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900040	0.2	4
36	A note on Potter□ theorem for quasi-commutative matrices. *Linear Algebra and Its Applications*, **2009**, 430, 1812-1825	0.9	3
35	Singular-value-like decomposition for complex matrix triples. *Journal of Computational and Applied Mathematics*, **2010**, 233, 1245-1276	2.4	3
34	Perturbed spectra of defective matrices. *Journal of Applied Mathematics*, **2003**, 2003, 115-140	1.1	3
33	Numerical Solution of Structured Problems **2004**, 137-156		3
32	Distance problems for dissipative Hamiltonian systems and related matrix polynomials. *Linear Algebra and Its Applications*, **2021**, 623, 335-366	0.9	3
31	Upwind Based Parameter Uniform Convergence Analysis for Two Parametric Parabolic Convection Diffusion Problems by Moving Mesh Methods. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 591-592	0.2	2
30	Adaptive solution of elliptic PDE-eigenvalue problems.. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 583-584	0.2	2
29	A robust numerical method for optimal H/sub /spl infin// control **2004**,		2
28	Numerical solution of linear-quadratic control problems for descriptor systems		2

27	On the matrix sign function method for the computation of invariant subspaces		2
26	Linear transformations which map the classes of □matrices and □matrices into or onto themselves. *Linear Algebra and Its Applications*, **1986**, 78, 79-106	0.9	2
25	On some conjectures on the spectra of □matrices. *Linear and Multilinear Algebra*, **1984**, 16, 101-112	0.7	2
24	The Multiplex Decomposition: An Analytic Framework for Multilayer Dynamical Networks. *SIAM Journal on Applied Dynamical Systems*, **2021**, 20, 1752-1772	2.8	2
23	Port-Hamiltonian formulations of poroelastic network models. *Mathematical and Computer Modelling of Dynamical Systems*, **2021**, 27, 429-452	1	2
22	An inverse-free ADI algorithm for computing Lagrangian invariant subspaces. *Numerical Linear Algebra With Applications*, **2016**, 23, 147-168	1.6	2
21	Regular solutions of DAE hybrid systems and regularization techniques. *BIT Numerical Mathematics*, **2018**, 58, 1049-1077	1.7	2
20	State estimation for reactive Euler equation by Kalman Filtering. *CEAS Aeronautical Journal*, **2017**, 8, 261-270	1.3	1
19	Approximation of stability radii for large-scale dissipative Hamiltonian systems. *Advances in Computational Mathematics*, **2020**, 46, 1	1.6	1
18	A generalized structured doubling algorithm for the numerical solution of linear quadratic optimal control problems. *Numerical Linear Algebra With Applications*, **2013**, 20, 112-137	1.6	1
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16	On a generalized Fan inequality. *Linear Algebra and Its Applications*, **1984**, 58, 235-245	0.9	1
15	Error Analysis and Model Adaptivity for Flows in Gas Networks. *Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica*, **2018**, 26, 231-266	0.4	1
14	Stability Assessment of Stochastic Differential-Algebraic Systems via Lyapunov Exponents with an Application to Power Systems. *Mathematics*, **2020**, 8, 1393	2.3	1
13	Low-Rank Perturbation of Regular Matrix Pencils with Symmetry Structures. *Foundations of Computational Mathematics*,1	2.7	1
12	Structured Backward Errors for Eigenvalues of Linear Port-Hamiltonian Descriptor Systems. *SIAM Journal on Matrix Analysis and Applications*, **2021**, 42, 1-16	1.5	1
11	Structure-Preserving Interpolatory Model Reduction for Port-Hamiltonian Differential-Algebraic Systems **2022**, 235-254		1
10	Hypocoercivity and controllability in linear semi-dissipative Hamiltonian ordinary differential equations and differential-algebraic equations. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*,e202100171	1	0

9	Computation of the Analytic Center of the Solution Set of the Linear Matrix Inequality Arising in Continuous- and Discrete-Time Passivity Analysis. *Vietnam Journal of Mathematics*, **2020**, 48, 633-659	0.5	0
8	A Robust Iterative Scheme for Symmetric Indefinite Systems. *SIAM Journal of Scientific Computing*, **2019**, 41, A1733-A1752	2.6	
7	Optimal robustness of passive discrete-time systems. *IMA Journal of Mathematical Control and Information*, **2020**, 37, 1248-1269	1.1	
6	Optimal Control for Linear Descriptor Systems with Variable Coefficients. *Lecture Notes in Electrical Engineering*, **2011**, 313-339	0.2	
5	Error bounds for non-selfadjoint PDE eigenvalue problems. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 551-552	0.2	
4	Positivity inheritance for linear problems. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 597-598	0.2	
3	. *IEEE Transactions on Automatic Control*, **1998**, 43, 1634-1637	5.9	
2	Ralph Byers 1955–2007. *Linear Algebra and Its Applications*, **2008**, 428, 2410-2414	0.9	
1	Ludwig Elsner and his contributions to core, applied and numerical linear algebra. *Linear Algebra and Its Applications*, **1999**, 287, 3-10	0.9	