

Peter Benner

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8790344/peter-benner-publications-by-citations.pdf>

Version: 2024-04-27

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.

404
papers

5,122
citations

31
h-index

58
g-index

456
ext. papers

6,307
ext. citations

1.6
avg, IF

6.39
L-index

#	Paper	IF	Citations
404	A Survey of Projection-Based Model Reduction Methods for Parametric Dynamical Systems. <i>SIAM Review</i> , 2015 , 57, 483-531	7.4	631
403	Numerical solution of large-scale Lyapunov equations, Riccati equations, and linear-quadratic optimal control problems. <i>Numerical Linear Algebra With Applications</i> , 2008 , 15, 755-777	1.6	199
402	Model Order Reduction for Linear and Nonlinear Systems: A System-Theoretic Perspective. <i>Archives of Computational Methods in Engineering</i> , 2014 , 21, 331-358	7.8	159
401	Lyapunov Equations, Energy Functionals, and Model Order Reduction of Bilinear and Stochastic Systems. <i>SIAM Journal on Control and Optimization</i> , 2011 , 49, 686-711	1.9	133
400	Interpolatory Projection Methods for Parameterized Model Reduction. <i>SIAM Journal of Scientific Computing</i> , 2011 , 33, 2489-2518	2.6	110
399	SLICOT: A Subroutine Library in Systems and Control Theory 1999 , 499-539		110
398	On the ADI method for Sylvester equations. <i>Journal of Computational and Applied Mathematics</i> , 2009 , 233, 1035-1045	2.4	94
397	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
396	Solving stable generalized Lyapunov equations with the matrix sign function. <i>Numerical Algorithms</i> , 1999 , 20, 75-100	2.1	88
395	Interpolation-Based \mathcal{H}_2 -Model Reduction of Bilinear Control Systems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2012 , 33, 859-885	1.5	85
394	Numerical solution of large and sparse continuous time algebraic matrix Riccati and Lyapunov equations: a state of the art survey. <i>GAMM Mitteilungen</i> , 2013 , 36, 32-52	1.8	83
393	Solving large-scale control problems. <i>IEEE Control Systems</i> , 2004 , 24, 44-59	2.9	80
392	An implicitly restarted symplectic Lanczos method for the Hamiltonian eigenvalue problem. <i>Linear Algebra and Its Applications</i> , 1997 , 263, 75-111	0.9	67
391	An exact line search method for solving generalized continuous-time algebraic Riccati equations. <i>IEEE Transactions on Automatic Control</i> , 1998 , 43, 101-107	5.9	61
390	Two-Sided Projection Methods for Nonlinear Model Order Reduction. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, B239-B260	2.6	59
389	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
388	Low rank methods for a class of generalized Lyapunov equations and related issues. <i>Numerische Mathematik</i> , 2013 , 124, 441-470	2.2	54

387	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
386	Fast Evaluation of Time-Harmonic Maxwell's Equations Using the Reduced Basis Method. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2013 , 61, 2265-2274	4.1	48
385	Modellreduktion für parametrisierte Systeme durch balanciertes Abschneiden und Interpolation Model Reduction for Parametric Systems Using Balanced Truncation and Interpolation. <i>Automatisierungstechnik</i> , 2009 , 57, 411-419	0.8	46
384	Efficient handling of complex shift parameters in the low-rank Cholesky factor ADI method. <i>Numerical Algorithms</i> , 2013 , 62, 225-251	2.1	38
383	Efficient balancing-based MOR for large-scale second-order systems. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2011 , 17, 123-143	1	37
382	Factorized Solution of Lyapunov Equations Based on Hierarchical Matrix Arithmetic. <i>Computing (Vienna/New York)</i> , 2006 , 78, 211-234	2.2	37
381	Model Order Reduction for Differential-Algebraic Equations: A Survey. <i>Differential-algebraic Equations Forum</i> , 2017 , 107-160	0.6	36
380	State-space truncation methods for parallel model reduction of large-scale systems. <i>Parallel Computing</i> , 2003 , 29, 1701-1722	1	36
379	Balanced Truncation Model Reduction of Large-Scale Dense Systems on Parallel Computers. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2000 , 6, 383-405	1	36
378	Using surrogate models for efficient optimization of simulated moving bed chromatography. <i>Computers and Chemical Engineering</i> , 2014 , 67, 121-132	4	34
377	Mathcal H ₂ -Quasi-Optimal Model Order Reduction for Quadratic-Bilinear Control Systems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2018 , 39, 983-1032	1.5	33
376	An improved numerical method for balanced truncation for symmetric second-order systems. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2013 , 19, 593-615	1	33
375	A Fully Adaptive Scheme for Model Order Reduction Based on Moment Matching. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 1872-1884	1.7	33
374	A mixed-precision algorithm for the solution of Lyapunov equations on hybrid CPU-GPU platforms. <i>Parallel Computing</i> , 2011 , 37, 439-450	1	32
373	Riccati-based Boundary Feedback Stabilization of Incompressible Navier-Stokes Flows. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A832-A858	2.6	30
372	Rosenbrock Methods for Solving Riccati Differential Equations. <i>IEEE Transactions on Automatic Control</i> , 2013 , 58, 2950-2956	5.9	30
371	Parameter preserving model order reduction for MEMS applications. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2011 , 17, 297-317	1	30
370	Model Reduction Based on Spectral Projection Methods 2005 , 5-48		29

369	Frequency-Limited Balanced Truncation with Low-Rank Approximations. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, A471-A499	2.6	27
368	\mathcal{L}_∞ -Norm Computation for Continuous-Time Descriptor Systems Using Structured Matrix Pencils. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 233-238	5.9	27
367	A robust numerical method for the \mathcal{H}_∞ iteration in H_2 control. <i>Linear Algebra and Its Applications</i> , 2007 , 425, 548-570	0.9	27
366	Benchmarks for the numerical solution of algebraic Riccati equations. <i>IEEE Control Systems</i> , 1997 , 17, 18-28	2.9	26
365	Low-rank solvers for unsteady Stokes-Brinkman optimal control problem with random data. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 304, 26-54	5.7	25
364	Perturbation Analysis for the Eigenvalue Problem of a Formal Product of Matrices. <i>BIT Numerical Mathematics</i> , 2002 , 42, 1-43	1.7	25
363	Computing real low-rank solutions of Sylvester equations by the factored ADI method. <i>Computers and Mathematics With Applications</i> , 2014 , 67, 1656-1672	2.7	24
362	On the numerical solution of large-scale sparse discrete-time Riccati equations. <i>Advances in Computational Mathematics</i> , 2011 , 35, 119-147	1.6	24
361	A Robust Algorithm for Parametric Model Order Reduction Based on Implicit Moment Matching 2014 , 159-185		24
360	Operator inference for non-intrusive model reduction of systems with non-polynomial nonlinear terms. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 372, 113433	5.7	23
359	Partial realization of descriptor systems. <i>Systems and Control Letters</i> , 2006 , 55, 929-938	2.4	23
358	Solving Stable Sylvester Equations via Rational Iterative Schemes. <i>Journal of Scientific Computing</i> , 2006 , 28, 51-83	2.3	23
357	Evaluating products of matrix pencils and collapsing matrix products. <i>Numerical Linear Algebra With Applications</i> , 2001 , 8, 357-380	1.6	23
356	Model Order Reduction of Differential Algebraic Equations Arising from the Simulation of Gas Transport Networks. <i>Differential-algebraic Equations Forum</i> , 2014 , 183-205	0.6	23
355	Skew-Hamiltonian and Hamiltonian Eigenvalue Problems: Theory, Algorithms and Applications 2005 , 3-39		22
354	Low-rank iterative methods for periodic projected Lyapunov equations and their application in model reduction of periodic descriptor systems. <i>Numerical Algorithms</i> , 2014 , 67, 669-690	2.1	21
353	An Arithmetic for Matrix Pencils: Theory and New Algorithms. <i>Numerische Mathematik</i> , 2006 , 103, 539-573		21
352	Numerical Linear Algebra for Model Reduction in Control and Simulation. <i>GAMM Mitteilungen</i> , 2006 , 29, 275-296	1.8	21

351	NUMERICAL SOLUTION OF DISCRETE STABLE LINEAR MATRIX EQUATIONS ON MULTICOMPUTERS. <i>International Journal of Parallel, Emergent and Distributed Systems</i> , 2002 , 17, 127-146		21
350	RADI: a low-rank ADI-type algorithm for large scale algebraic Riccati equations. <i>Numerische Mathematik</i> , 2018 , 138, 301-330	2.2	21
349	On the solution of large-scale algebraic Riccati equations by using low-dimensional invariant subspaces. <i>Linear Algebra and Its Applications</i> , 2016 , 488, 430-459	0.9	20
348	Large-Scale Computation of \mathcal{L}_∞ -Norms by a Greedy Subspace Method. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 1496-1516	1.5	20
347	An Efficient Output Error Estimation for Model Order Reduction of Parametrized Evolution Equations. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, B910-B936	2.6	20
346	Matrix inversion on CPU/GPU platforms with applications in control theory. <i>Concurrency Computation Practice and Experience</i> , 2013 , 25, 1170-1182	1.4	20
345	A Hamiltonian Krylov-Schur-type method based on the symplectic Lanczos process. <i>Linear Algebra and Its Applications</i> , 2011 , 435, 578-600	0.9	20
344	Generalised tangential interpolation for model reduction of discrete-time MIMO bilinear systems. <i>International Journal of Control</i> , 2011 , 84, 1398-1407	1.5	20
343	Algorithm 800. <i>ACM Transactions on Mathematical Software</i> , 2000 , 26, 49-77	2.3	20
342	Computing Surrogates for Gas Network Simulation Using Model Order Reduction 2013 , 189-212		20
341	Model reduction for stochastic systems. <i>Stochastics and Partial Differential Equations: Analysis and Computations</i> , 2015 , 3, 291-338	0.9	19
340	Recycling BiCGSTAB with an Application to Parametric Model Order Reduction. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, S429-S446	2.6	19
339	A structured pseudospectral method for (\mathcal{H}_∞) -norm computation of large-scale descriptor systems. <i>Mathematics of Control, Signals, and Systems</i> , 2014 , 26, 303-338	1.3	19
338	A robust algorithm for parametric model order reduction. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007 , 7, 1021501-1021502	0.2	19
337	Efficient numerical solution of the LQR-problem for the heat equation. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2004 , 4, 648-649	0.2	19
336	Optimal damping of selected eigenfrequencies using dimension reduction. <i>Numerical Linear Algebra With Applications</i> , 2013 , 20, 1-17	1.6	18
335	Low-Rank Solution of Unsteady Diffusion Equations with Stochastic Coefficients. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2015 , 3, 622-649	1.8	18
334	Dimension reduction for damping optimization in linear vibrating systems. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2011 , 91, 179-191	1	18

333	Efficient algorithms for generalized algebraic Bernoulli equations based on the matrix sign function. <i>Numerical Algorithms</i> , 2007 , 46, 351-368	2.1	18
332	Estimating the Inf-Sup Constant in Reduced Basis Methods for Time-Harmonic Maxwell Equations. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2015 , 63, 3549-3557	4.1	17
331	Solving linear-quadratic optimal control problems on parallel computers. <i>Optimization Methods and Software</i> , 2008 , 23, 879-909	1.3	17
330	Solving algebraic Riccati equations on parallel computers using Newton's method with exact line search. <i>Parallel Computing</i> , 2000 , 26, 1345-1368	1	17
329	Model Reduction of Periodic Descriptor Systems Using Balanced Truncation. <i>Lecture Notes in Electrical Engineering</i> , 2011 , 193-206	0.2	17
328	A Semi-Discretized Heat Transfer Model for Optimal Cooling of Steel Profiles 2005 , 353-356		17
327	Dual Pairs of Generalized Lyapunov Inequalities and Balanced Truncation of Stochastic Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 782-791	5.9	16
326	An isoperimetric optimal control problem for a non-isothermal chemical reactor with periodic inputs. <i>Chemical Engineering Science</i> , 2017 , 161, 206-214	4.4	16
325	Numerical Solution of Projected Algebraic Riccati Equations. <i>SIAM Journal on Numerical Analysis</i> , 2014 , 52, 581-600	2.4	16
324	On H ² -model reduction of linear parameter-varying systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011 , 11, 805-806	0.2	16
323	Numerical solution of special algebraic Riccati equations via an exact line search method 1997 ,		16
322	Efficient Solution of Large-Scale Saddle Point Systems Arising in Riccati-Based Boundary Feedback Stabilization of Incompressible Stokes Flow. <i>SIAM Journal of Scientific Computing</i> , 2013 , 35, S150-S170	2.6	15
321	The symplectic eigenvalue problem, the butterfly form, the SR algorithm, and the Lanczos method. <i>Linear Algebra and Its Applications</i> , 1998 , 275-276, 19-47	0.9	15
320	Symplectic Balancing of Hamiltonian Matrices. <i>SIAM Journal of Scientific Computing</i> , 2001 , 22, 1885-1904	2.6	15
319	PARALLEL DISTRIBUTED SOLVERS FOR LARGE STABLE GENERALIZED LYAPUNOV EQUATIONS. <i>Parallel Processing Letters</i> , 1999 , 09, 147-158	0.3	15
318	Balancing based model reduction for structured index-2 unstable descriptor systems with application to flow control. <i>Numerical Algebra, Control and Optimization</i> , 2016 , 6, 1-20	1.7	15
317	Krylov subspace methods for model reduction of quadratic-bilinear systems. <i>IET Control Theory and Applications</i> , 2016 , 10, 2010-2018	2.5	15
316	Block-Diagonal Preconditioning for Optimal Control Problems Constrained by PDEs with Uncertain Inputs. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016 , 37, 491-518	1.5	15

315	An inexact low-rank Newton-ADI method for large-scale algebraic Riccati equations. <i>Applied Numerical Mathematics</i> , 2016 , 108, 125-142	2.5	14
314	Subspace recycling accelerates the parametric macro-modeling of MEMS. <i>International Journal for Numerical Methods in Engineering</i> , 2013 , 94, 84-110	2.4	14
313	Numerical solution of the infinite-dimensional LQR problem and the associated Riccati differential equations. <i>Journal of Numerical Mathematics</i> , 2018 , 26, 1-20	3.4	14
312	Fast iterative solution of the Bethe-Salpeter eigenvalue problem using low-rank and QTT tensor approximation. <i>Journal of Computational Physics</i> , 2017 , 334, 221-239	4.1	13
311	Some a posteriori error bounds for reduced-order modelling of (non-)parametrized linear systems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2017 , 51, 2127-2158	1.8	13
310	Fast solution of Cahn-Hilliard variational inequalities using implicit time discretization and finite elements. <i>Journal of Computational Physics</i> , 2014 , 262, 38-57	4.1	13
309	Nonlinear model reduction of a continuous fluidized bed crystallizer. <i>Journal of Computational and Applied Mathematics</i> , 2015 , 289, 253-266	2.4	13
308	Two connections between the SR and HR eigenvalue algorithms. <i>Linear Algebra and Its Applications</i> , 1998 , 272, 17-32	0.9	13
307	Algorithm 854. <i>ACM Transactions on Mathematical Software</i> , 2006 , 32, 352-373	2.3	13
306	SR and SZ algorithms for the symplectic (butterfly) eigenproblem. <i>Linear Algebra and Its Applications</i> , 1999 , 287, 41-76	0.9	13
305	On reduced input-output dynamic mode decomposition. <i>Advances in Computational Mathematics</i> , 2018 , 44, 1751-1768	1.6	12
304	UNCERTAINTY QUANTIFICATION FOR MAXWELL'S EQUATIONS USING STOCHASTIC COLLOCATION AND MODEL ORDER REDUCTION 2015 , 5, 195-208		12
303	Robust formulas for optimal H _∞ controllers. <i>Automatica</i> , 2011 , 47, 2639-2646	5.7	12
302	An Implicitly Restarted Symplectic Lanczos Method for the Symplectic Eigenvalue Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001 , 22, 682-713	1.5	12
301	Structure preserving model order reduction of large sparse second-order index-1 systems and application to a mechatronics model. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2016 , 22, 509-523	1	12
300	Model reduction of an elastic crankshaft for elastic multibody simulations. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2013 , 93, 198-216	1	11
299	Numerical Linear Algebra Methods for Linear Differential-Algebraic Equations. <i>Differential-algebraic Equations Forum</i> , 2015 , 117-175	0.6	11
298	Using Hybrid CPU-GPU Platforms to Accelerate the Computation of the Matrix Sign Function. <i>Lecture Notes in Computer Science</i> , 2010 , 132-139	0.9	11

297	A reduced basis approach for calculation of the Bethe-Peter excitation energies by using low-rank tensor factorisations** Dedicated to Prof. Andreas Savin on occasion of his 65th birthday.View all notes. <i>Molecular Physics</i> , 2016 , 114, 1148-1161	1.7	11
296	A discontinuous Galerkin method for optimal control problems governed by a system of convection-diffusion PDEs with nonlinear reaction terms. <i>Computers and Mathematics With Applications</i> , 2015 , 70, 2414-2431	2.7	10
295	A Numerical Comparison of Different Solvers for Large-Scale, Continuous-Time Algebraic Riccati Equations and LQR Problems. <i>SIAM Journal of Scientific Computing</i> , 2020 , 42, A957-A996	2.6	10
294	Positive operators and stable truncation. <i>Linear Algebra and Its Applications</i> , 2016 , 498, 74-87	0.9	10
293	Computing All or Some Eigenvalues of Symmetric \mathcal{H}_ℓ -Matrices. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A485-A496	2.6	10
292	Computation of a compact state space model for an adaptive spindle head configuration with piezo actuators using balanced truncation. <i>Production Engineering</i> , 2012 , 6, 577-586	1.9	10
291	Gramian-Based Model Reduction for Data-Sparse Systems. <i>SIAM Journal of Scientific Computing</i> , 2008 , 31, 776-798	2.6	10
290	Parallel Algorithms for LQ Optimal Control of Discrete-Time Periodic Linear Systems. <i>Journal of Parallel and Distributed Computing</i> , 2002 , 62, 306-325	4.4	10
289	Structure preservation: a challenge in computational control. <i>Future Generation Computer Systems</i> , 2003 , 19, 1243-1252	7.5	10
288	LQG-Balanced Truncation Low-Order Controller for Stabilization of Laminar Flows. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015 , 365-379	0.3	10
287	Solution formulas for differential Sylvester and Lyapunov equations. <i>Calcolo</i> , 2019 , 56, 1	1.5	10
286	A New Error Estimator for Reduced-Order Modeling of Linear Parametric Systems. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2019 , 67, 4848-4859	4.1	10
285	POD-DEIM for efficient reduction of a dynamic 2D catalytic reactor model. <i>Computers and Chemical Engineering</i> , 2017 , 106, 777-784	4	9
284	Moment-matching based model reduction for Navier-Stokes type quadratic-bilinear descriptor systems. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2017 , 97, 1252-1267	1	9
283	AnH2-type error bound for balancing-related model order reduction of linear systems with L ₂ noise. <i>Systems and Control Letters</i> , 2017 , 105, 1-5	2.4	9
282	Model order reduction of parameterized systems (MoRePaS). <i>Advances in Computational Mathematics</i> , 2015 , 41, 955-960	1.6	9
281	Model reduction by iterative error system approximation. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2018 , 24, 103-118	1	9
280	Robust Stabilization of Laminar Flows in Varying Flow Regimes. <i>IFAC-PapersOnLine</i> , 2016 , 49, 31-36	0.7	9

279	Model Order Reduction for Systems with Moving Loads. <i>Automatisierungstechnik</i> , 2014 , 62, 512-522	0.8	9
278	A reduced basis method for microwave semiconductor devices with geometric variations. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2014 , 33, 1071-1081	0.7	9
277	On the Impact of Optimization on the Time-Power-Energy Balance of Dense Linear Algebra Factorizations. <i>Lecture Notes in Computer Science</i> , 2013 , 3-10	0.9	9
276	A Reformulated Low-Rank ADI Iteration with Explicit Residual Factors. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013 , 13, 585-586	0.2	9
275	Die SLICOT-Toolboxen für Matlab The SLICOT Toolboxes for Matlab. <i>Automatisierungstechnik</i> , 2010 , 58, 15-25	0.8	9
274	Structure Preserving Iterative Solution of Periodic Projected Lyapunov Equations. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 276-281		9
273	Numerische Methoden zur passivitätserhaltenden Modellreduktion (Numerical Methods for Passivity Preserving Model Reduction). <i>Automatisierungstechnik</i> , 2006 , 54, 153-160	0.8	9
272	A Note on Projection Techniques for Model Order Reduction of Bilinear Systems. <i>AIP Conference Proceedings</i> , 2007 ,	0	9
271	Parallel model reduction of large-scale unstable systems. <i>Advances in Parallel Computing</i> , 2004 , 251-258	1.1	9
270	Numerical Methods for Linear Quadratic and H _∞ Control Problems 1999 , 203-222		9
269	Model Order Reduction for PDE Constrained Optimization. <i>International Series of Numerical Mathematics</i> , 2014 , 303-326	0.4	9
268	Advances in Balancing-Related Model Reduction for Circuit Simulation. <i>Mathematics in Industry</i> , 2010 , 469-482	0.2	9
267	Krylov-Subspace Based Model Reduction of Nonlinear Circuit Models Using Bilinear and Quadratic-Linear Approximations. <i>Mathematics in Industry</i> , 2012 , 153-159	0.2	9
266	Multipoint interpolation of Volterra series and H ₂ -model reduction for a family of bilinear descriptor systems. <i>Systems and Control Letters</i> , 2016 , 97, 1-11	2.4	9
265	Some remarks on the complex J-symmetric eigenproblem. <i>Linear Algebra and Its Applications</i> , 2018 , 544, 407-442	0.9	9
264	Parallel Algorithms for Balanced Truncation Model Reduction of Sparse Systems. <i>Lecture Notes in Computer Science</i> , 2006 , 267-275	0.9	9
263	Algorithm 961. <i>ACM Transactions on Mathematical Software</i> , 2016 , 42, 1-26	2.3	8
262	Discontinuous Galerkin finite element methods with shock-capturing for nonlinear convection dominated models. <i>Computers and Chemical Engineering</i> , 2013 , 58, 278-287	4	8

261	Accelerating PDE constrained optimization by the reducedbasis method: application to batch chromatography. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 104, 983-1007	2.4	8
260	Solving Matrix Equations on Multi-Core and Many-Core Architectures. <i>Algorithms</i> , 2013 , 6, 857-870	1.8	8
259	Model Order and Terminal Reduction Approaches via Matrix Decomposition and Low Rank Approximation. <i>Mathematics in Industry</i> , 2010 , 523-530	0.2	8
258	Implicit Volterra series interpolation for model reduction of bilinear systems. <i>Journal of Computational and Applied Mathematics</i> , 2017 , 316, 15-28	2.4	7
257	Krylov subspace-based model reduction for a class of bilinear descriptor systems. <i>Journal of Computational and Applied Mathematics</i> , 2017 , 315, 303-318	2.4	7
256	Model reduction of linear multi-agent systems by clustering with $(\text{varvec}\{\mathcal{H}_2\})$ and $(\text{varvec}\{\mathcal{H}_\infty\})$ error bounds. <i>Mathematics of Control, Signals, and Systems</i> , 2018 , 30, 1	1.3	7
255	Low-rank Newton-ADI methods for large nonsymmetric algebraic Riccati equations. <i>Journal of the Franklin Institute</i> , 2016 , 353, 1147-1167	4	7
254	Chapter 9: Comparison of Methods for Parametric Model Order Reduction of Time-Dependent Problems 2017 , 377-407		7
253	Efficient model order reduction for multi-agent systems using QR decomposition-based clustering 2015 ,		7
252	Numerical Solution of Optimal Control Problems for Parabolic Systems 2006 , 151-169		7
251	A portable subroutine library for solving linear control problems on distributed memory computers 1999 , 61-87		7
250	Periodic switching strategies for an isoperimetric control problem with application to nonlinear chemical reactions. <i>Applied Mathematical Modelling</i> , 2019 , 69, 287-300	4.5	7
249	Interpolation-Based Model Order Reduction for Polynomial Systems. <i>SIAM Journal of Scientific Computing</i> , 2021 , 43, A84-A108	2.6	7
248	A bilinear (\mathcal{H}_2) model order reduction approach to linear parameter-varying systems. <i>Advances in Computational Mathematics</i> , 2019 , 45, 2241-2271	1.6	6
247	Range-Separated Tensor Format for Many-Particle Modeling. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A1034-A1062	2.6	6
246	Space-Time Galerkin POD with Application in Optimal Control of Semilinear Partial Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A1611-A1641	2.6	6
245	On optimality of approximate low rank solutions of large-scale matrix equations. <i>Systems and Control Letters</i> , 2014 , 67, 55-64	2.4	6
244	Adaptive discontinuous Galerkin methods for state constrained optimal control problems governed by convection diffusion equations. <i>Computational Optimization and Applications</i> , 2015 , 62, 291-321	1.4	6

243	On the QR decomposition of $\{\mathcal{H}\}$ -matrices. <i>Computing (Vienna/New York)</i> , 2010 , 88, 111-129	0.2	6
242	Computing optimal Hankel norm approximations of large-scale systems 2004 ,		6
241	Efficient Algorithms for Large-Scale Quadratic Matrix Equations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2002 , 1, 492	0.2	6
240	The Kleinman Iteration for Nonstabilizable Systems. <i>Mathematics of Control, Signals, and Systems</i> , 2003 , 16, 76-93	1.3	6
239	Parallel Model Reduction of Large Linear Descriptor Systems via Balanced Truncation. <i>Lecture Notes in Computer Science</i> , 2005 , 340-353	0.9	6
238	Stabilization of Incompressible Flow Problems by Riccati-based Feedback. <i>International Series of Numerical Mathematics</i> , 2012 , 5-20	0.4	6
237	Model Reduction for Linear Descriptor Systems with Many Ports. <i>Mathematics in Industry</i> , 2012 , 137-143	0.2	6
236	Partial Stabilization of Descriptor Systems Using Spectral Projectors. <i>Lecture Notes in Electrical Engineering</i> , 2011 , 55-76	0.2	6
235	Identification of port-Hamiltonian systems from frequency response data. <i>Systems and Control Letters</i> , 2020 , 143, 104741	2.4	6
234	Faster and More Accurate Computation of the \mathcal{H}_∞ Norm via Optimization. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A3609-A3635	2.6	6
233	Structure preserving iterative methods for periodic projected Lyapunov equations and their application in model reduction of periodic descriptor systems. <i>Numerical Algorithms</i> , 2017 , 76, 881-904	2.1	5
232	Adaptive PODDEIM basis construction and its application to a nonlinear population balance system. <i>AIChE Journal</i> , 2017 , 63, 3832-3844	3.6	5
231	Reduced-order modelling of parametric systems via interpolation of heterogeneous surrogates. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2019 , 6,	2.7	5
230	Parametric model order reduction of thermal models using the bilinear interpolatory rational Krylov algorithm. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2015 , 21, 103-129	1	5
229	Adaptive basis construction and improved error estimation for parametric nonlinear dynamical systems. <i>International Journal for Numerical Methods in Engineering</i> , 2020 , 121, 5320-5349	2.4	5
228	Singular perturbation approximation for linear systems with L_2 noise. <i>Stochastics and Dynamics</i> , 2018 , 18, 1850033	0.8	5
227	Semi-active damping optimization of vibrational systems using the parametric dominant pole algorithm. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2016 , 96, 604-619	1	5
226	A Low-Rank Inexact Newton-Krylov Method for Stochastic Eigenvalue Problems. <i>Computational Methods in Applied Mathematics</i> , 2019 , 19, 5-22	1.2	5

225	Comparison of model order reduction methods for optimal sensor placement for thermo-elastic models** An abridged version of the manuscript was submitted to the CIRP sponsored conference on Conference on Thermal Issues in Machine Tools, 2018.View all notes. <i>Engineering Optimization</i> , 2019 , 51, 465-483	2	5
224	Model reduction for linear simulated moving bed chromatography systems using Krylov-subspace methods. <i>AIChE Journal</i> , 2014 , 60, 3773-3783	3.6	5
223	Spectral characterization and enforcement of negative imaginarieness for descriptor systems. <i>Linear Algebra and Its Applications</i> , 2013 , 439, 1104-1129	0.9	5
222	Model Order Reduction of an Electro-Thermal Package Model. <i>IFAC-PapersOnLine</i> , 2015 , 48, 934-935	0.7	5
221	Mapping parameters across system boundaries: parameterized model reduction with low rank variability in dynamics. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 19-22	0.2	5
220	Parametric model order reduction accelerated by subspace recycling 2009 ,		5
219	Iterative solvers for periodic matrix equations and model reduction for periodic control systems 2012 ,		5
218	Experimental evaluation of new SLICOT solvers for linear matrix equations based on the matrix sign function 2008 ,		5
217	Efficient solution of large scale Lyapunov and Riccati equations arising in model order reduction problems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008 , 8, 10085-10088	0.2	5
216	Time-dependent Dirichlet Conditions in Finite Element Discretizations. <i>ScienceOpen Research</i> ,		5
215	Efficient solution of large-scale algebraic Riccati equations associated with index-2 DAEs via the inexact low-rank Newton-ADI method. <i>Applied Numerical Mathematics</i> , 2020 , 152, 338-354	2.5	5
214	Computation of thermo-elastic deformations on machine tools a study of numerical methods. <i>Production Engineering</i> , 2016 , 10, 253-263	1.9	5
213	Cross-Gramian-based dominant subspaces. <i>Advances in Computational Mathematics</i> , 2019 , 45, 2533-2553	1.6	5
212	Frequency- and time-limited balanced truncation for large-scale second-order systems. <i>Linear Algebra and Its Applications</i> , 2021 , 623, 68-103	0.9	5
211	Interpolation of Reduced-Order Models Based on Modal Analysis 2018 ,		5
210	Adaptive Symmetric Interior Penalty Galerkin Method for Boundary Control Problems. <i>SIAM Journal on Numerical Analysis</i> , 2017 , 55, 1101-1133	2.4	4
209	Parametric model order reduction with a small (H_2)-error using radial basis functions. <i>Advances in Computational Mathematics</i> , 2015 , 41, 1231-1253	1.6	4
208	Fast and Reliable Noise Estimation for Hyperspectral Subspace Identification. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2015 , 12, 1199-1203	4.1	4

207	Exponential stability and stabilization of extended linearizations via continuous updates of Riccati-based feedback. <i>International Journal of Robust and Nonlinear Control</i> , 2018 , 28, 1218-1232	3.6	4
206	Time-varying stabilization of a class of driftless systems satisfying second-order controllability conditions 2016 ,		4
205	Low-Rank Eigenvector Compression of Posterior Covariance Matrices for Linear Gaussian Inverse Problems. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2018 , 6, 965-989	1.8	4
204	The preconditioned inverse iteration for hierarchical matrices. <i>Numerical Linear Algebra With Applications</i> , 2013 , 20, 150-166	1.6	4
203	System-Level Modeling of MEMS by Means of Model Order Reduction (Mathematical Approximations) [Mathematical Background. <i>Advanced Micro & Nanosystems</i> , 2013 , 53-93		4
202	Convergence of Approximations to Riccati-based Boundary-feedback Stabilization of Laminar Flows 1 The work was supported by the High-End Foreign Expert Program (GDT20153100033) of the State Administration of Foreign Experts Affairs (SAFEA), P.R. China.. <i>IFAC-PapersOnLine</i> , 2017 , 50, 12296-12300	0.7	4
201	A new Interpolatory Model Reduction Approach for Quadratic Bilinear Descriptor Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2015 , 15, 589-590	0.2	4
200	On the squared Smith method for large-scale Stein equations. <i>Numerical Linear Algebra With Applications</i> , 2014 , 21, 645-665	1.6	4
199	Efficient optimization of simulated moving bed processes using reduced order models. <i>Computer Aided Chemical Engineering</i> , 2012 , 1232-1236	0.6	4
198	Improved Second-Order Balanced Truncation for Symmetric Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 758-762		4
197	Numerical solution of differential Riccati equations arising in optimal control for parabolic PDEs. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007 , 7, 2060063-2060064	0.2	4
196	Parallel algorithms for model reduction of discrete-time systems. <i>International Journal of Systems Science</i> , 2003 , 34, 319-333	2.3	4
195	New Hamiltonian Eigensolvers with Applications in Control		4
194	Parallel Partial Stabilizing Algorithms for Large Linear Control Systems. <i>Journal of Supercomputing</i> , 2000 , 15, 193-206	2.5	4
193	A RATIONAL SHIRA METHOD FOR THE HAMILTONIAN EIGENVALUE PROBLEM. <i>Taiwanese Journal of Mathematics</i> , 2010 , 14,	1.1	4
192	Truncated Gramians for Bilinear Systems and Their Advantages in Model Order Reduction. <i>Modeling, Simulation and Applications</i> , 2017 , 285-300	1.1	4
191	Parallel Solution of Large-Scale and Sparse Generalized Algebraic Riccati Equations. <i>Lecture Notes in Computer Science</i> , 2006 , 710-719	0.9	4
190	Solving Stable Stein Equations on Distributed Memory Computers?. <i>Lecture Notes in Computer Science</i> , 1999 , 1120-1123	0.9	4

189	Optimal control problems constrained by the stochastic Navier-Stokes equations with multiplicative Lévy noise. <i>Mathematische Nachrichten</i> , 2019 , 292, 1444-1461	0.8	3
188	Reduced-Order Modeling and ROM-Based Optimization of Batch Chromatography. <i>Lecture Notes in Computational Science and Engineering</i> , 2015 , 427-435	0.3	3
187	Model order reduction for a family of linear systems with applications in parametric and uncertain systems. <i>Applied Mathematics Letters</i> , 2015 , 39, 1-6	3.5	3
186	Model order reduction for bilinear control systems with inhomogeneous initial conditions. <i>International Journal of Control</i> , 2020 , 1-10	1.5	3
185	Hankel-norm approximation of large-scale descriptor systems. <i>Advances in Computational Mathematics</i> , 2020 , 46, 1	1.6	3
184	A linear quadratic control problem for the stochastic heat equation driven by Q-Wiener processes. <i>Journal of Mathematical Analysis and Applications</i> , 2018 , 457, 776-802	1.1	3
183	Parametric modeling and model order reduction for (electro-)thermal analysis of nanoelectronic structures. <i>Journal of Mathematics in Industry</i> , 2016 , 6,	2.9	3
182	Modeling Glyphosate aerial spray drift at the Ecuador-Colombia border. <i>Applied Mathematical Modelling</i> , 2016 , 40, 373-387	4.5	3
181	Accelerating optimization and uncertainty quantification of nonlinear SMB chromatography using reduced-order models. <i>Computers and Chemical Engineering</i> , 2017 , 96, 237-247	4	3
180	Avoiding complex arithmetic in the low-rank ADI method efficiently. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 639-640	0.2	3
179	The Reduced Basis Method for Time-Harmonic Maxwell's Equations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 661-662	0.2	3
178	Computing the eigenvalues of symmetric $\{H\}^2$ -matrices by slicing the spectrum. <i>Computing and Visualization in Science</i> , 2013 , 16, 271-282	1	3
177	Bounds on the Solution of Linear Time-Periodic Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013 , 13, 447-448	0.2	3
176	A parallel, adaptive multi-point model order reduction algorithm 2013 ,		3
175	Model Predictive Control for Nonlinear Parabolic Differential Equations Based on a Linear Quadratic Gaussian Design. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009 , 9, 613-614	0.2	3
174	Robust and Efficient Algorithms for L_∞ -Norm Computation for Descriptor Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 195-200		3
173	A MATLAB repository for model reduction based on spectral projection 2006 ,		3
172	Computing Passive Reduced-Order Models for Circuit Simulation		3

171	Partial Stabilization of Generalized State-Space Systems Using the Disk Function Method. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2003 , 2, 479-480	0.2	3
170	Parallel Algorithms for Balanced Truncation of Large-Scale Unstable Systems		3
169	Singular perturbation approximation of large, dense linear systems		3
168	Arithmetic for rectangular matrix pencils		3
167	Greedy low-rank algorithm for spatial connectome regression. <i>Journal of Mathematical Neuroscience</i> , 2019 , 9, 9	2.4	3
166	Accelerating Band Linear Algebra Operations on GPUs with Application in Model Reduction. <i>Lecture Notes in Computer Science</i> , 2014 , 386-400	0.9	3
165	Revisiting the Gauss-Huard Algorithm for the Solution of Linear Systems on Graphics Accelerators. <i>Lecture Notes in Computer Science</i> , 2016 , 505-514	0.9	3
164	Accelerating Model Reduction of Large Linear Systems with Graphics Processors. <i>Lecture Notes in Computer Science</i> , 2012 , 88-97	0.9	3
163	A hybrid method for the numerical solution of discrete-time algebraic Riccati equations. <i>Contemporary Mathematics</i> , 2001 , 255-269	1.6	3
162	On Stability, Passivity and Reciprocity Preservation of ESVD MOR. <i>Lecture Notes in Electrical Engineering</i> , 2011 , 277-288	0.2	3
161	Model Reduction for Second-Order Dynamical Systems Revisited. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019 , 19, e201900224	0.2	3
160	Extended and Improved Criss-Cross Algorithms for Computing the Spectral Value Set Abscissa and Radius. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2019 , 40, 1325-1352	1.5	3
159	Implicit higher-order moment matching technique for model reduction of quadratic-bilinear systems. <i>Journal of the Franklin Institute</i> , 2021 , 358, 2015-2038	4	3
158	Model Reduction of Descriptor Systems with the MORLAB Toolbox. <i>IFAC-PapersOnLine</i> , 2018 , 51, 547-552	0.7	3
157	Gas Network Benchmark Models. <i>Differential-algebraic Equations Forum</i> , 2018 , 171-197	0.6	3
156	Solving Large Sparse Lyapunov Equations on Parallel Computers. <i>Lecture Notes in Computer Science</i> , 2002 , 687-690	0.9	3
155	A new two-sided projection technique for model reduction of quadratic-bilinear descriptor systems. <i>International Journal of Computer Mathematics</i> , 2019 , 96, 1899-1909	1.2	2
154	Towards the identification of heat induction in chip removing processes via an optimal control approach. <i>Production Engineering</i> , 2015 , 9, 343-349	1.9	2

153	Balanced truncation of linear time-invariant systems over finite-frequency ranges. <i>Advances in Computational Mathematics</i> , 2020 , 46, 1	1.6	2
152	High performance solution of skew-symmetric eigenvalue problems with applications in solving the Bethe-Salpeter eigenvalue problem. <i>Parallel Computing</i> , 2020 , 96, 102639	1	2
151	A Subspace Framework for \mathcal{H}_∞ -Norm Minimization. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2020 , 41, 928-956	1.5	2
150	An index-aware parametric model order reduction method for parameterized quadratic differential-algebraic equations. <i>Applied Mathematics and Computation</i> , 2018 , 319, 409-424	2.7	2
149	Nanoelectronic COupled problems solutions - nanoCOPS: modelling, multirate, model order reduction, uncertainty quantification, fast fault simulation. <i>Journal of Mathematics in Industry</i> , 2016 , 7,	2.9	2
148	Robust Controller versus Numerical Model Uncertainties for Stabilization of Navier-Stokes Equations. <i>IFAC-PapersOnLine</i> , 2019 , 52, 25-29	0.7	2
147	A Greedy Subspace Method for Computing the L^∞ Norm. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017 , 17, 751-752	0.2	2
146	Construction of a Lyapunov functional for a class of controlled population balance models. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017 , 17, 827-828	0.2	2
145	Nonlinear feedback stabilization of incompressible flows via updated Riccati-based gains 2017 ,		2
144	Model reduction of quadratic-bilinear descriptor systems via Carleman bilinearization 2015 ,		2
143	A non-conforming composite quadrilateral finite element pair for feedback stabilization of the Stokes equations. <i>Journal of Numerical Mathematics</i> , 2014 , 22,	3-4	2
142	H^∞ Norm Computation for Large and Sparse Descriptor Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 797-800	0.2	2
141	Locally Optimal Block Preconditioned Conjugate Gradient Method for Hierarchical Matrices. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011 , 11, 741-742	0.2	2
140	On the Computation of Particular Eigenvectors of Hamiltonian Matrix Pencils. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011 , 11, 753-754	0.2	2
139	Second order to second order balancing for index-1 vibrational systems 2012 ,		2
138	A Goal-Oriented Dual LRCF-ADI for Balanced Truncation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 752-757		2
137	Projection-Based Model Reduction for Time-Varying Descriptor Systems Using Recycled Krylov Subspaces. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008 , 8, 10081-10084	0.2	2
136	A SLICOT Implementation of a Modified Newton's Method for Algebraic Riccati Equations 2006 ,		2

135	Solving linear matrix equations with SLICOT 2003 ,		2
134	A robust numerical method for optimal H_2 control 2004 ,		2
133	A sparse approximate inverse preconditioner for the method of moments accelerated with the multilevel fast multipole method		2
132	Numerical solution of linear-quadratic control problems for descriptor systems		2
131	Computing passive reduced-order models for circuit simulation		2
130	Trading Off Performance for Energy in Linear Algebra Operations with Applications in Control Theory. <i>CLEI Electronic Journal</i> , 2014 , 17,	0.6	2
129	L_1 -norm computation for large-scale descriptor systems using structured iterative eigensolvers. <i>Numerical Algebra, Control and Optimization</i> , 2018 , 8, 119-133	1.7	2
128	A Direct Index 1 DAE Model of Gas Networks 2018 , 99-119		2
127	Model Order Reduction for Systems with Non-Rational Transfer Function Arising in Computational Electromagnetics. <i>Mathematics in Industry</i> , 2010 , 515-522	0.2	2
126	On error estimation for reduced-order modeling of linear non-parametric and parametric systems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2021 , 55, 561-594	1.8	2
125	Learning reduced-order dynamics for parametrized shallow water equations from data. <i>International Journal for Numerical Methods in Fluids</i> , 2021 , 93, 2803-2821	1.9	2
124	Local steering problem for a class of control-affine systems with application to continuous crystallization processes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016 , 16, 831-832	0.2	2
123	New Gramians for Switched Linear Systems: Reachability, Observability, and Model Reduction. <i>IEEE Transactions on Automatic Control</i> , 2020 , 65, 2526-2535	5.9	2
122	Low-Order Control Design using a Reduced-Order Model with a Stability Constraint on the Full-Order Model 2018 ,		2
121	On an Invariance Principle for the Solution Space of the Differential Riccati Equation. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018 , 18, e201800031	0.2	2
120	Interpolatory model reduction for quadratic-bilinear systems using error estimators. <i>Engineering Computations</i> , 2018 , 36, 25-44	1.4	2
119	Balancing Related Model Reduction with the MORLAB Toolbox. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018 , 18, e201800083	0.2	2
118	Regularization of Poisson-Boltzmann Type Equations with Singular Source Terms Using the Range-Separated Tensor Format. <i>SIAM Journal of Scientific Computing</i> , 2021 , 43, A415-A445	2.6	2

117	Trigonometric spline and spectral bounds for the solution of linear time-periodic systems. <i>Journal of Applied Mathematics and Computing</i> , 2017 , 54, 127-157	1.8	1
116	Extending the Gauss-Huard method for the solution of Lyapunov matrix equations and matrix inversion. <i>Concurrency Computation Practice and Experience</i> , 2017 , 29, e4076	1.4	1
115	Balanced Truncation for a Special Class of Bilinear Descriptor Systems 2019 , 3, 535-540		1
114	Extending lyapack for the solution of band Lyapunov equations on hybrid CPU+GPU platforms. <i>Journal of Supercomputing</i> , 2015 , 71, 740-750	2.5	1
113	Theory and Numerical Solution of Differential and Algebraic Riccati Equations 2015 , 67-105		1
112	Introduction to the special issue for EUCCO 2013. <i>Computational Optimization and Applications</i> , 2015 , 62, 1-3	1.4	1
111	Solving SLICOT benchmarks for continuous-time algebraic Riccati equations by Hamiltonian solvers 2015 ,		1
110	Numerical solution to low rank perturbed Lyapunov equations by the sign function method. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016 , 16, 723-724	0.2	1
109	Efficient Error Estimator for Model Order Reduction of Linear Parametric Systems 2019 ,		1
108	Model order reduction of bilinear time-delay systems 2019 ,		1
107	Interpolatory model reduction techniques for linear second-order descriptor systems 2014 ,		1
106	Efficient Model Reduction of SMB Chromatography by Krylov-subspace Method with Application to Uncertainty Quantification. <i>Computer Aided Chemical Engineering</i> , 2014 , 925-930	0.6	1
105	A Cache-Aware Implementation of the Spectral Divide-and-Conquer Approach for the Non-Symmetric Generalized Eigenvalue Problem. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 819-820	0.2	1
104	The LR Cholesky algorithm for symmetric hierarchical matrices. <i>Linear Algebra and Its Applications</i> , 2013 , 439, 1150-1166	0.9	1
103	Computing the Stochastic $\{H\}^\infty$ -Norm by a Newton Iteration 2017 , 1, 92-97		1
102	On the transformation formulas of the Hankel-norm approximation. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017 , 17, 823-824	0.2	1
101	Solving dense linear systems with hybrid ARM+GPU platforms 2015 ,		1
100	Generalized inverses of periodic matrix pairs and model reduction for periodic control systems 2014 ,		1

99	Spectral Bounds on the Solution of Linear Time-Periodic Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 863-864	0.2	1
98	A factored variant of the Newton iteration for the solution of algebraic Riccati equations via the matrix sign function. <i>Numerical Algorithms</i> , 2014 , 66, 363-377	2.1	1
97	Efficient Reduced Order State Space Model Computation for a Class of Second Order Index One Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 699-700	0.2	1
96	High Performance Implementations of the BST Method on Hybrid CPU-GPU Platforms 2012 ,		1
95	New SLICOT routines based on structured eigensolvers 2012 ,		1
94	Reachability and Observability Concepts for Stochastic Systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013 , 13, 381-382	0.2	1
93	Modeling structural variability in reduced order models of machine tool assembly groups via parametric MOR. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013 , 13, 481-482	0.2	1
92	Model order reduction of large-scale dynamical systems with Jacobi-Davidson style eigensolvers 2011 ,		1
91	H ₂ Control for Descriptor Systems via Pencil Based Approach. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009 , 9, 645-646	0.2	1
90	Parallel solution of large-scale algebraic Bernoulli equations with the matrix sign function method. <i>International Journal of Computational Science and Engineering</i> , 2009 , 4, 88	0.4	1
89	On the Solution of the Rational Matrix Equation. <i>Eurasip Journal on Advances in Signal Processing</i> , 2007 , 2007, 1	1.9	1
88	Passivity preserving model reduction via a structured Lanczos method 2006 ,		1
87	Balancing sparse Hamiltonian eigenproblems. <i>Linear Algebra and Its Applications</i> , 2006 , 415, 3-19	0.9	1
86	Partial stabilisation of large-scale discrete-time linear control systems. <i>International Journal of Computational Science and Engineering</i> , 2005 , 1, 15	0.4	1
85	Solving linear and quadratic matrix equations on distributed memory parallel computers		1
84	Parallel Algorithms for Tensor Train Arithmetic. <i>SIAM Journal of Scientific Computing</i> , 2022 , 44, C25-C53	2.6	1
83	A Training Set Subsampling Strategy for the Reduced Basis Method. <i>Journal of Scientific Computing</i> , 2021 , 89, 1	2.3	1
82	An Iterative Model Reduction Scheme for Quadratic-Bilinear Descriptor Systems with an Application to NavierStokes Equations 2018 , 1-19		1

81	Optimal Control of a Stefan Problem Fully Coupled with Incompressible Navier-Stokes Equations and Mesh Movement. <i>Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica</i> , 2018 , 26, 11-40	0.4	1
80	Model Order Reduction of Switched Linear Systems with Constrained Switching. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2020 , 41-53	0.3	1
79	Computational Experience with a Modified Newton Solver for Discrete-Time Algebraic Riccati Equations. <i>Lecture Notes in Electrical Engineering</i> , 2020 , 142-167	0.2	1
78	Index-Aware MOR for Gas Transport Networks. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2020 , 191-207	0.3	1
77	Index-Preserving Model Order Reduction for Differential-Algebraic Systems Arising in Gas Transport Networks. <i>Mathematics in Industry</i> , 2019 , 291-297	0.2	1
76	Parametric and Reduced-Order Modeling for the Thermal Analysis of Nanoelectronic Structures. <i>Mathematics in Industry</i> , 2016 , 155-163	0.2	1
75	Solving Sparse Differential Riccati Equations on Hybrid CPU-GPU Platforms. <i>Lecture Notes in Computer Science</i> , 2017 , 116-132	0.9	1
74	Damping Optimization for Linear Vibrating Systems Using Dimension Reduction. <i>Springer Proceedings in Physics</i> , 2011 , 297-305	0.2	1
73	Nonlinear Model Order Reduction for Catalytic Tubular Reactors. <i>Computer Aided Chemical Engineering</i> , 2016 , 38, 2373-2378	0.6	1
72	Model Order Reduction for Thermo-Elastic Assembly Group Models. <i>Lecture Notes in Production Engineering</i> , 2015 , 85-93	0	1
71	Output Error Estimates in Reduced Basis Methods for Time-Harmonic Maxwell's Equations. <i>Lecture Notes in Computational Science and Engineering</i> , 2016 , 351-358	0.3	1
70	Reduced Basis Approximations for Maxwell's Equations in Dispersive Media. <i>Modeling, Simulation and Applications</i> , 2017 , 107-119	1.1	1
69	Accelerating BST Methods for Model Reduction with Graphics Processors. <i>Lecture Notes in Computer Science</i> , 2012 , 549-558	0.9	1
68	MPC/LQG for Infinite-Dimensional Systems Using Time-Invariant Linearizations. <i>International Federation for Information Processing</i> , 2013 , 217-224		1
67	Unleashing CPU-GPU Acceleration for Control Theory Applications. <i>Lecture Notes in Computer Science</i> , 2013 , 102-111	0.9	1
66	Optimal Control-Based Feedback Stabilization of Multi-field Flow Problems. <i>International Series of Numerical Mathematics</i> , 2014 , 173-188	0.4	1
65	Fast solution of the linearized Poisson-Boltzmann equation with nonaffine parametrized boundary conditions using the reduced basis method. <i>Computing and Visualization in Science</i> , 2020 , 23, 1	1	1
64	Low-rank linear fluid-structure interaction discretizations. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2020 , 100, e201900205	1	1

63	Topical Issue Scientific Machine Learning (1/2). <i>GAMM Mitteilungen</i> , 2021 , 44,	1.8	1
62	Structure-preserving interpolation of bilinear control systems. <i>Advances in Computational Mathematics</i> , 2021 , 47, 1	1.6	1
61	Reduced-order modeling of index-1 vibrational systems using interpolatory projections 2016 ,		1
60	An Adaptive Method for Interpolating Reduced-Order Models Based on Matching and Continuation of Poles 2019 ,		1
59	Optimal periodic control of nonlinear chemical reactions with a time-varying flow rate. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019 , 19, e201900146	0.2	1
58	Low-rank solution of an optimal control problem constrained by random Navier-Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , 2020 , 92, 1653-1678	1.9	1
57	Model order reduction for delay systems by iterative interpolation. <i>International Journal for Numerical Methods in Engineering</i> , 2021 , 122, 684-706	2.4	1
56	MORLAB – The Model Order Reduction LABORatory. <i>International Series of Numerical Mathematics</i> , 2021 , 393-415	0.4	1
55	Factorized solution of generalized stable Sylvester equations using many-core GPU accelerators. <i>Journal of Supercomputing</i> , 2021 , 77, 10152-10164	2.5	1
54	Synchronization and Aggregation of Nonlinear Power Systems with Consideration of Bus Network Structures 2018 ,		1
53	Control design for a 2?2 hyperbolic system with application to preferential crystallization. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018 , 18, e201800455	0.2	1
52	Improving the Performance of Numerical Algorithms for the Bethe-Salpeter Eigenvalue Problem. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018 , 18, e201800255	0.2	1
51	Structure-preserving interpolation for model reduction of parametric bilinear systems. <i>Automatica</i> , 2021 , 132, 109799	5.7	1
50	Galerkin trial spaces and Davison-Maki methods for the numerical solution of differential Riccati equations. <i>Applied Mathematics and Computation</i> , 2021 , 410, 126401	2.7	1
49	Matrix Equations, Sparse Solvers: M-M.E.S.S.-2.0.1 – Philosophy, Features, and Application for (Parametric) Model Order Reduction. <i>International Series of Numerical Mathematics</i> , 2021 , 369-392	0.4	1
48	Gramians, Energy Functionals, and Balanced Truncation for Linear Dynamical Systems with Quadratic Outputs. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	1
47	Parallel Order Reduction via Balanced Truncation for Optimal Cooling of Steel Profiles. <i>Lecture Notes in Computer Science</i> , 2005 , 857-866	0.9	1
46	FAST SYSTEM IDENTIFICATION AND MODEL REDUCTION SOLVERS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 477-482		0

45	Data-Driven model order reduction for problems with parameter-dependent jump-discontinuities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 387, 114168	5.7	o
44	Parallel Implementation of LQG Balanced Truncation for Large-Scale Systems. <i>Lecture Notes in Computer Science</i> , 2008 , 227-234	0.9	o
43	Tomographic X-ray scattering based on invariant reconstruction: analysis of the 3D nanostructure of bovine bone. <i>Journal of Applied Crystallography</i> , 2021 , 54, 486-497	3.8	o
42	Relative perturbation theory for quadratic Hermitian eigenvalue problems. <i>Linear Algebra and Its Applications</i> , 2021 , 618, 97-128	0.9	o
41	A GPU-aware mixed-precision solver for low-rank algebraic Riccati equations. <i>Concurrency Computation Practice and Experience</i> , 2019 , 31, e4462	1.4	o
40	Power-to-Chemicals: A Superstructure Problem for Sustainable Syngas Production. <i>Mathematics in Industry</i> , 2021 , 145-168	0.2	o
39	Efficient and accurate algorithms for solving the Bethe-Salpeter eigenvalue problem for crystalline systems. <i>Journal of Computational and Applied Mathematics</i> , 2022 , 400, 113650	2.4	o
38	Adaptive Interpolatory MOR by Learning the Error Estimator in the Parameter Domain. <i>International Series of Numerical Mathematics</i> , 2021 , 97-117	0.4	o
37	MathEnergy [Mathematical Key Technologies for Evolving Energy Grids. <i>Mathematics in Industry</i> , 2021 , 233-262	0.2	o
36	Robust output-feedback stabilization for incompressible flows using low-dimensional H_{∞} -controllers. <i>Computational Optimization and Applications</i> , 2022 , 82, 225-249	1.4	o
35	Computing the density of states for optical spectra of molecules by low-rank and QTT tensor approximation. <i>Journal of Computational Physics</i> , 2019 , 382, 221-239	4.1	
34	Unleashing GPU acceleration for symmetric band linear algebra kernels and model reduction. <i>Cluster Computing</i> , 2015 , 18, 1351-1362	2.1	
33	Stability preserving model reduction for linearly coupled linear time-invariant systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016 , 16, 817-818	0.2	
32	Chapter 6: Model Order Reduction Based on System Balancing 2017 , 261-295		
31	Towards Riccati-Feedback Control of Complex Flows with Moving Interfaces. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017 , 17, 769-770	0.2	
30	Matrix Equations and Model Reduction. <i>Series in Contemporary Applied Mathematics</i> , 2015 , 50-75	o	
29	Balancing-Related Model Reduction for Parabolic Control Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 257-262		
28	Suboptimality Estimates for the Semi-Discretized LQR Problem for Parabolic PDEs. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2010 , 10, 591-592	0.2	

27	Stabilizing large-scale generalized systems on parallel computers using multithreading and message-passing. <i>Concurrency Computation Practice and Experience</i> , 2007 , 19, 531-542	1.4
26	A NUMERICAL ALGORITHM FOR ROBUST STABILIZATION OF SYSTEMS WITH SECTOR-BOUNDED NONLINEARITY. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 513-518	
25	Computing roots of matrix products. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2001 , 81, 717-718	1
24	MORLAB IA Model Order Reduction Framework in MATLAB and Octave. <i>Lecture Notes in Computer Science</i> , 2020 , 432-441	0.9
23	Analysis of Switching Strategies for the Optimization of Periodic Chemical Reactions with Controlled Flow-Rate. <i>Springer Proceedings in Mathematics and Statistics</i> , 2021 , 59-69	0.2
22	Solving Discrete-Time Periodic Riccati Equations on a Cluster. <i>Lecture Notes in Computer Science</i> , 2000 , 824-828	0.9
21	Enhanced Services for Remote Model Reduction of Large-Scale Dense Linear Systems. <i>Lecture Notes in Computer Science</i> , 2002 , 329-338	0.9
20	Remote Parallel Model Reduction of Linear Time-Invariant Systems Made Easy. <i>Lecture Notes in Computer Science</i> , 2003 , 255-268	0.9
19	Sparse Model Order Reduction for Electro-Thermal Problems with Many Inputs. <i>Mathematics in Industry</i> , 2018 , 189-202	0.2
18	A Parallel Multi-threaded Solver for Symmetric Positive Definite Bordered-Band Linear Systems. <i>Lecture Notes in Computer Science</i> , 2016 , 96-105	0.9
17	Reduced Basis Modeling for Uncertainty Quantification of Electromagnetic Problems in Stochastically Varying Domains. <i>Mathematics in Industry</i> , 2016 , 215-222	0.2
16	Tuning the Blocksize for Dense Linear Algebra Factorization Routines with the Roofline Model. <i>Lecture Notes in Computer Science</i> , 2016 , 18-29	0.9
15	Automatic Generation of Reduced-Order Models for Linear Parametric Systems. <i>Mathematics in Industry</i> , 2016 , 811-818	0.2
14	Parametric Model Order Reduction for Electro-Thermal Coupled Problems with Many Inputs. <i>Mathematics in Industry</i> , 2017 , 263-270	0.2
13	Reduced Representation of Power Grid Models. <i>Mathematics in Industry</i> , 2017 , 87-134	0.2
12	Control Theory. <i>Discrete Mathematics and Its Applications</i> , 2013 , 1445-1462	
11	Efficient Solvers for Large-Scale Saddle Point Systems Arising in Feedback Stabilization of Multi-field Flow Problems. <i>IFIP Advances in Information and Communication Technology</i> , 2014 , 11-20	0.5
10	Introduction to the Special Issue related to the Power-Aware Computing Workshop 2019BACO 2019. <i>International Journal of High Performance Computing Applications</i> , 2021 , 35, 209-210	1.8

- 9 Topical issue scientific machine learning (2/2). *GAMM Mitteilungen*, **2021**, 44, e202100010 1.8
- 8 A Stochastic Maximum Principle for Control Problems Constrained by the Stochastic Navier-Stokes Equations. *Applied Mathematics and Optimization*, **2021**, 84, 1001-1054 1.5
- 7 Clustering-Based Model Order Reduction for Nonlinear Network Systems. *International Series of Numerical Mathematics*, **2021**, 75-96 0.4
- 6 Linear Low-Rank Parameter-Dependent Fluid-Structure Interaction Discretization in 2D. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800178 0.2
- 5 Model reduction of complex dynamical systems. *Advances in Computational Mathematics*, **2018**, 44, 1687-1691 1.6
- 4 Index-Aware Model-Order Reduction for a Special Class of Nonlinear Differential-Algebraic Equations. *Journal of Dynamics and Differential Equations*, 1 1.3
- 3 A Rational Even-IRA Algorithm for the Solution of \mathcal{H}_∞ -Even Polynomial Eigenvalue Problems. *SIAM Journal on Matrix Analysis and Applications*, **2021**, 42, 1172-1198 1.5
- 2 Non-intrusive Time-POD for Optimal Control of a Fixed-Bed Reactor for CO₂ Methanation. *IFAC-PapersOnLine*, **2021**, 54, 122-127 0.7
- 1 An Adaptive Sampling Approach for the Reduced Basis Method **2022**, 137-155