# Heike FaÃbender

List of Publications by Year
in descending order



| 55 | 559 | 623734 | 713466 |
|---|---|---|---|
| papers | citations | 14 h-index | 21 g-index |

| 57 | 57 | 57 | 270 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | An implicitly restarted symplectic Lanczos method for the Hamiltonian eigenvalue problem. Linear Algebra and Its Applications, 1997, 263, 75-111. | 0.9 | 71 |
| 2 | Hamiltonian square roots of skew-Hamiltonian matrices. Linear Algebra and Its Applications, 1999, 287, 125-159. | 0.9 | 42 |
| 3 | On the numerical solution of large-scale sparse discrete-time Riccati equations. Advances in Computational Mathematics, 2011, 35, 119-147. | 1.6 | 29 |
| 4 | A Jacobi-like method for solving algebraic Riccati equations on parallel computers. IEEE Transactions on Automatic Control, 1997, 42, 1071-1084. | 5.7 | 25 |
| 5 | Hamilton and Jacobi come full circle: Jacobi algorithms for structured Hamiltonian eigenproblems. Linear Algebra and Its Applications, 2001, 332-334, 37-80. | 0.9 | 25 |
| 6 | A fully adaptive rational global Arnoldi method for the model-order reduction of second-order MIMO systems with proportional damping. Mathematics and Computers in Simulation, 2016, 122, 1-19. | 4.4 | 24 |
| 7 | A Hamiltonian Krylovâ€“Schur-type method based on the symplectic Lanczos process. Linear Algebra and Its Applications, 2011, 435, 578-600. | 0.9 | 23 |
| 8 | The symplectic eigenvalue problem, the butterfly form, the SR algorithm, and the Lanczos method. Linear Algebra and Its Applications, 1998, 275-276, 19-47. | 0.9 | 22 |
| 9 | Some observations on the Youla form and conjugate-normal matrices. Linear Algebra and Its Applications, 2007, 422, 29-38. | 0.9 | 20 |
| 10 | Conjugate-normal matrices: A survey. Linear Algebra and Its Applications, 2008, 429, 1425-1441. | 0.9 | 18 |
| 11 | SR and SZ algorithms for the symplectic (butterfly) eigenproblem. Linear Algebra and Its Applications, 1999, 287, 41-76. | 0.9 | 16 |
| 12 | An Implicitly Restarted Symplectic Lanczos Method for the Symplectic Eigenvalue Problem. SIAM Journal on Matrix Analysis and Applications, 2001, 22, 682-713. | 1.4 | 16 |
| 13 | On numerical methods for discrete least-squares approximation by trigonometric polynomials. Mathematics of Computation, 1997, 66, 719-742. | 2.1 | 15 |
| 14 | Two connections between the SR and HR eigenvalue algorithms. Linear Algebra and Its Applications, 1998, 272, 17-32. | 0.9 | 14 |
| 15 | On the diagonalizability of a matrix by a symplectic equivalence, similarity or congruence transformation. Linear Algebra and Its Applications, 2016, 496, 288-306. | 0.9 | 13 |
| 16 | Computing matrixâ€“vector products with centrosymmetric and centrohermitian matrices. Linear Algebra and Its Applications, 2003, 364, 235-241. | 0.9 | 12 |
| 17 | Several observations on symplectic, Hamiltonian, and skew-Hamiltonian matrices. Linear Algebra and Its Applications, 2005, 400, 15-29. | 0.9 | 12 |
| 18 | Proper Orthogonal Decomposition for steady aerodynamic applications. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 635-636. | 0.2 | 12 |

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|---|---|---|---|
| 19 | On vector spaces of linearizations for matrix polynomials in orthogonal bases. Linear Algebra and Its Applications, 2017, 525, 59-83. | 0.9 | 12 |
| 20 | Some remarks on the complex J-symmetric eigenproblem. Linear Algebra and Its Applications, 2018, 544, 407-442. | 0.9 | 10 |
| 21 | Projection-Based Model Order Reduction for Steady Aerodynamics. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2013, , 151-166. | 0.3 | 10 |
| 22 | Numerische Methoden zur passivitÃtserhaltenden Modellreduktion (Numerical Methods for Passivity) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 0.8 | 9 |
| 23 | On the product of two skew-Hamiltonian or two skew-symmetric matrices. Journal of Mathematical Sciences, 2009, 157, 697-700. | 0.4 | 9 |
| 24 | Error bounds in the isometric Arnoldi process. Journal of Computational and Applied Mathematics, 1997, 86, 53-72. | 2.0 | 7 |
| 25 | On the Perturbation Theory for Unitary Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 2000, 21, 809-824. | 1.4 | 7 |
| 26 | An inverse eigenvalue problem and an associated approximation problem for generalized K-centrohermitian matrices. Journal of Computational and Applied Mathematics, 2007, 206, 578-585. | 2.0 | 7 |
| 27 | Block Kronecker ansatz spaces for matrix polynomials. Linear Algebra and Its Applications, 2018, 542, 118-148. | 0.9 | 7 |
| 28 | Inverse unitary eigenproblems and related orthogonal functions. Numerische Mathematik, 1997, 77, 323-345. | 1.9 | 6 |
| 29 | Error Analysis of the Symplectic Lanczos Method for the Symplectic Eigenvalue Problem. BIT Numerical Mathematics, 2000, 40, 471-496. | 2.0 | 6 |
| 30 | Machine tool simulation based on reduced order FE models. Mathematics and Computers in Simulation, 2011, 82, 404-413. | 4.4 | 6 |
| 31 | A quadrature framework for solving Lyapunov and Sylvester equations. Linear Algebra and Its Applications, 2021, 622, 66-103. | 0.9 | 6 |
| 32 | On the Solution of the Rational Matrix Equation. Eurasip Journal on Advances in Signal Processing, 2007, 2007, 1. | 1.7 | 5 |
| 33 | Some properties of generalized K-centrosymmetric H-matrices. Journal of Computational and Applied Mathematics, 2008, 215, 38-48. | 2.0 | 5 |
| 34 | Initializing Newton's method for discrete-time algebraic Riccati equations using the butterfly SZ algorithm. , 0, , . | | 4 |
| 35 | SYMMLQ-like procedure for Ax = b where A is a special normal matrix. Calcolo, 2006, 43, 17-37. | 1.1 | 4 |
| 36 | A note on an unusual type of polar decomposition. Linear Algebra and Its Applications, 2008, 429, 42-49. | 0.9 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Passivity preserving model reduction via a structured Lanczos method. , 2006, , . | | 3 |
| 38 | On the conditioning of factors in the SR decomposition. Linear Algebra and Its Applications, 2016, 505, 224-244. | 0.9 | 3 |
| 39 | Breaking Van Loanâ€™s Curse: A Quest forStructure-Preserving Algorithms for Dense Structured Eigenvalue Problems. , 2015, , 3-23. | | 3 |
| 40 | Quadratically normal and congruence-normal matrices. Journal of Mathematical Sciences, 2010, 165, 521-532. | 0.4 | 2 |
| 41 | Some contributions to the model order reduction of large scale non-linear electric circuits. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 639-640. | 0.2 | 2 |
| 42 | Missing Point Estimation for steady aerodynamic applications. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 839-840. | 0.2 | 2 |
| 43 | Model Order Reduction for Unsteady Aerodynamic Applications. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 475-476. | 0.2 | 2 |
| 44 | Model order reduction for steady aerodynamics of high-lift configurations. CEAS Aeronautical Journal, 2014, 5, 487-500. | 1.7 | 2 |
| 45 | Constructing symmetric structure-preserving strong linearizations. ACM Communications in Computer Algebra, 2017, 50, 167-169. | 0.4 | 1 |
| 46 | Passivity Preserving Model Reduction via a Structured Lanczos Method. , 2006, , . | | 1 |
| 47 | Simultaneous reduction to block triangular form by a unitary congruence transformation. Journal of Mathematical Sciences, 2008, 150, 1943-1950. | 0.4 | 0 |
| 48 | Preface to the 17th ILAS Conference â€˜Pure and Applied Linear Algebra: The New Generationâ€™ Proceedings, Braunschweig, Germany, 2011. Linear Algebra and Its Applications, 2013, 439, 807-808. | 0.9 | 0 |
| 49 | On a modification of the EVENâ€IRA algorithm for the solution of T â€even polynomial eigenvalue problems. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800006. | 0.2 | 0 |
| 50 | 7th Workshop on Matrix Equations and Tensor Techniques. Numerical Linear Algebra With Applications, 2018, 25, e2223. | 1.6 | 0 |
| 51 | On normal and structured matrices under unitary structure-preserving transformations. Linear Algebra and Its Applications, 2021, 608, 322-342. | 0.9 | 0 |
| 52 | Nearly optimal scaling in the SR decomposition. Linear Algebra and Its Applications, 2021, 613, 295-319. | 0.9 | 0 |
| 53 | Structured Eigenvalue Problems â€” Structure-Preserving Algorithms, Structured Error Analysis. Discrete Mathematics and Its Applications, 2013, , 1129-1150. | 0.1 | 0 |
| 54 | A revised moment error expression for the AIRGA algorithm. Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica, 2018, 26, 87-104. | 0.3 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | On the singular value decomposition of (skew-)involutory and (skew-)coninvolutory matrices. Special Matrices, 2020, 8, 1-13. | 0.5 | 0 |