

Popis znanstvenih radova

Prvo navodimo radove koji su indeksirani u Current Contents, Science Citation Index Expanded i Scopus bibliografskim bazama; to su radovi pod brojevima 1–57:

- [1] Vjeran Hari. A Jacobi-like eigenvalue algorithm for general real matrices. *Glasnik matematički*, 11(31):367–378, 1976.
- [2] Vjeran Hari. On the global convergence of the Eberlein method for real matrices. *Numerische Mathematik*, 39(3):361–369, 1982.
- [3] Vjeran Hari. On the quadratic convergence of the Paardekooper method I. *Glasnik matematički*, 17(37):183–195, 1982.
- [4] Vjeran Hari. On the convergence of the cyclic Jacobi-like processes. *Linear Algebra and its Applications*, 81:105–127, 1986.
- [5] Vjeran Hari and Krešimir Veselić. On Jacobi methods for singular value decompositions. *SIAM Journal on Scientific and Statistical Computing*, 8(5):741–754, 1987.
- [6] Vjeran Hari. On the quadratic convergence of the serial singular value decomposition Jacobi methods for triangular matrices. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1076–1096, 1989.
- [7] Krešimir Veselić and Vjeran Hari. A note on a one-sided Jacobi algorithm. *Numerische Mathematik*, 56(6):627–633, 1989.
- [8] Vjeran Hari. On pairs of almost diagonal matrices. *Linear Algebra and its Applications*, 148:193–223, 1991.
- [9] Vjeran Hari. On sharp quadratic convergence bounds for the serial Jacobi methods. *Numerische Mathematik*, 60(1):375–406, 1991.
- [10] Ivan Slapničar and Vjeran Hari. On the quadratic convergence of the Falk-Langemeyer method. *SIAM Journal on Matrix Analysis and Applications*, 12(1):84–114, 1991.
- [11] Vjeran Hari and Noah H. Rhee. On the quadratic convergence of the Paardekooper method II. *Glasnik matematički*, 27(47):369–391, 1992.
- [12] Vjeran Hari and Noah H. Rhee. On pair of almost diagonal skew-symmetric and symmetric positive definite matrices. In Richard F. Sincovec, David E. Keyes, Michael R. Leuze, Linda R. Petzold, and Daniel A. Reed, editors, *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing, PP 1993, Norfolk, Virginia, USA, March 22-24, 1993*, pages 582–585. SIAM, 1993.
- [13] Zlatko Drmač and Vjeran Hari. On quadratic convergence bounds for the J-symmetric Jacobi method. *Numerische Mathematik*, 64(1):147–180, 1993.
- [14] Vjeran Hari and Noah H. Rhee. A matrix pair of an almost diagonal skew-symmetric matrix and a symmetric positive definite matrix. *Linear Algebra and its Applications*, 195:117–144, 1993.
- [15] Noah Rhee and Vjeran Hari. On the global and cubic convergence of a quasi-cyclic Jacobi method. *Numerische Mathematik*, 66:97–122, 12 1993.

- [16] Haesun Park and Vjeran Hari. A real algorithm for the Hermitian eigenvalue decomposition. *BIT Numerical Mathematics*, 33:158–171, 1993.
- [17] Noah H. Rhee and Vjeran Hari. On the cubic convergence of the Paardekoooper method. *BIT Numerical Mathematics*, 35(1):116–132, 1995.
- [18] Zlatko Drmač and Vjeran Hari. Relative residual bounds for the eigenvalues of a Hermitian semidefinite matrix. *SIAM Journal on Matrix Analysis and Applications*, 18(1):21–29, 1997.
- [19] Vjeran Hari and Zlatko Drmač. On scaled almost-diagonal Hermitian matrix pairs. *SIAM Journal on Matrix Analysis and Applications*, 18(4):1000–1012, 1997.
- [20] Josip Matejaš and Vjeran Hari. Scaled almost diagonal matrices with multiple singular values. *ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik*, 78:121–131, 1998.
- [21] Vjeran Hari. Structure of almost diagonal matrices. *Mathematical communications*, 4(2):135–158, 1999.
- [22] Zlatko Drmač, Vjeran Hari, and Ivan Slapničar. Advances in Jacobi methods. In Zlatko Drmač, Vjeran Hari, Luka Sopta, Zvonimir Tutek, and Krešimir Veselić, editors, *Applied Mathematics and Scientific Computing*, pages 63–90, Boston, MA, 2003. Springer US.
- [23] Vjeran Hari and Josip Matejaš. Quadratic convergence of scaled iterates by Kogbetliantz method. In Jürgen Herzberger, editor, *Inclusion Methods for Nonlinear Problems*, pages 83–105, Vienna, 2003. Computing Supplementa, vol 16. Springer, Vienna.
- [24] Vjeran Hari. On some new applications of the CS decomposition. In T. E. Simos and C. Tsitouras, editors, *ICNAAM 2004, International Conference on Numerical Analysis and Applied Mathematics, Chalkis, Greece, September 10–14, 2004*, pages 161–163, Weinheim, 2004. Wiley-VCH.
- [25] V. Hari. On some new applications of the CS decomposition. In T. E. Simos and C. Tsitouras, editors, *ICNAAM 2004, International Conference on Numerical Analysis and Applied Mathematics, Chalkis, Greece, September 10–14, 2004*, pages 161–163. Wiley-VCH, Weinheim, 2004.
- [26] Vjeran Hari. Accelerating the SVD block-Jacobi method. *Computing*, 75(1):27–53, 2005.
- [27] Vjeran Hari. Butterfly matrices and the modulus kogbetliantz method. In T. E. Simos, editor, *Proceedings of ICNAAM – International Conference on Numerical Analysis and Applied Mathematics*, pages 226–229, Weinheim, 2005. Wiley-VCH Verlag GmbH & Co. KGaA.
- [28] Vjeran Hari, Sanja Singer, and Saša Singer. Efficient eigenvalue computation by block modification of the indefinite one-sided Jacobi algorithm. In T. E. Simos, editor, *Proceedings of ICNAAM – International Conference on Numerical Analysis and Applied Mathematics*, pages 230–233, Weinheim, 2005. Wiley-VCH Verlag GmbH & Co. KGaA.
- [29] Vjeran Hari, Sanja Singer, and Saša Singer. Cache-oriented implementation of the indefinite block-Jacobi method. In Theodore E. Simos, George Psihoyios, and Ch. Tsitouras, editors, *Proceedings of ICNAAM – International Conference on Numerical Analysis and Applied Mathematics*, pages 212–215. Wiley-VCH, 2006.
- [30] Vjeran Hari and Josip Matejaš. An accurate SVD algorithm for 2x2 triangular matrices. In T. E. Simos, editor, *Proceedings of ICNAAM – International Conference on Numerical Analysis and Applied Mathematics*, pages 143–146, Weinheim, 2006. Wiley-VCH Verlag GmbH & Co. KGaA.

- [31] Vjeran Hari. Convergence of a block-oriented quasi-cyclic Jacobi method. *SIAM Journal on Matrix Analysis and Applications*, 29(2):349–369, 2007.
- [32] Vjeran Hari. Quadratic convergence of a special quasi-cyclic Jacobi method. *Annali dell’Universita’ di Ferrara*, 53(2):255–269, 2007.
- [33] Vjeran Hari and Vida Zadelj Martić. Parallelizing the Kogbetliantz method: A first attempt. *Journal of Numerical Analysis Industrial and Applied Mathematics*, 2(1-2):49–66, 2007.
- [34] Vjeran Hari. Perturbation and location of the singular values of symmetrically scaled matrices. *AIP Conference Proceedings*, 936:255–258, 9 2007.
- [35] Sanja Singer, Saša Singer, Vjeran Hari, Krešimir Bokulić, Davor Davidović, Marijan Jurešić, and Aleksandar Ušćumlić. Advances in speedup of the indefinite one-sided block Jacobi method. *AIP Conference Proceedings*, 936:519–522, 9 2007.
- [36] Vjeran Hari. Convergence to diagonal form of block Jacobi-type processes. *AIP Conference Proceedings*, 1048:253–256, 9 2008.
- [37] Josip Matejaš and Vjeran Hari. Relative eigenvalue and singular value perturbations of scaled diagonally dominant matrices. *BIT Numerical Mathematics*, 48(4):769–781, 2008.
- [38] Vjeran Hari and Josip Matejaš. Accuracy of two SVD algorithms for 2x2 triangular matrices. *Applied Mathematics and Computation*, 210(1):232–257, 2009.
- [39] Vjeran Hari, Sanja Singer, and Saša Singer. Block-oriented J-Jacobi methods for Hermitian matrices. *Linear Algebra and its Applications*, 433(8):1491–1512, 2010.
- [40] Josip Matejaš and Vjeran Hari. Accuracy of the Kogbetliantz method for scaled diagonally dominant triangular matrices. *Applied Mathematics and Computation*, 217(8):3726–3746, 2010.
- [41] Vjeran Hari, Sanja Singer, and Saša Singer. Full block J-Jacobi method for Hermitian matrices. *Linear Algebra and its Applications*, 444:1–27, 2014.
- [42] Vjeran Hari. Convergence to diagonal form of block Jacobi-type methods. *Numerische Mathematik*, 129(3):449–481, 2015.
- [43] Josip Matejaš and Vjeran Hari. On high relative accuracy of the Kogbetliantz method. *Linear Algebra and its Applications*, 464:100–129, 2015. Special issue on eigenvalue problems.
- [44] Vjeran Hari. On the complex HZ method for PGEP. *AIP Conference Proceedings*, 1776:090011, 10 2016.
- [45] Erna Begović Kovač and Vjeran Hari. On the global convergence of the Jacobi method for symmetric matrices of order 4 under parallel strategies. *Linear Algebra and its Applications*, 524:199–234, 2017.
- [46] Vjeran Hari and Erna Begović Kovač. Convergence of the cyclic and quasi-cyclic block Jacobi methods. *Electron. Trans. Numer. Anal. (ETNA)*, 46:107–147, 2017.
- [47] Erna Begović Kovač and Vjeran Hari. Jacobi method for symmetric 4×4 matrices converges for every cyclic pivot strategy. *Numerical Algorithms*, 78(3):701–720, 2018.
- [48] Vjeran Hari. On the global convergence of the complex HZ method. *SIAM Journal on Matrix Analysis and Applications*, 40(4):1291–1310, 2019.

- [49] Vjeran Hari. Complex Cholesky-Jacobi algorithm for PGEP. *AIP Conference Proceedings*, 2116:450011, 7 2019.
- [50] Vjeran Hari. On the complex Falk-Langemeyer method. *Numerical Algorithms*, 83(2):451–483, 2020.
- [51] Vjeran Hari. On the global convergence of the block Jacobi method for the positive definite generalized eigenvalue problem. *Calcolo*, 58(24), 2021.
- [52] Vjeran Hari and Erna Begović Kovač. On the convergence of complex Jacobi methods. *Linear and Multilinear Algebra*, 69(3):489–514, 2021.
- [53] Vjeran Hari. On the quadratic convergence of the complex HZ method for the positive definite generalized eigenvalue problem. *Linear Algebra and its Applications*, 632:153–192, 2022.
- [54] Josip Matejaš and Vjeran Hari. The high relative accuracy of the HZ method. *Applied Mathematics and Computation*, 433:127358, 2022.
- [55] Vjeran Hari and Erna Begović Kovač. Convergence of the complex block Jacobi methods under the generalized serial pivot strategies. *Linear Algebra and its Applications*, 699:421–458, 2024.
- [56] Vjeran Hari. Global and quadratic convergence of the block Jacobi method for Hermitian matrices under the deRijk pivot strategy. *Electron. Trans. Numer. Anal. (ETNA)*, 63:83–128, 2025.
- [57] Vjeran Hari and Vedran Novaković. On convergence and accuracy of the J-Jacobi method under the deRijk pivot strategy. *Electron. Trans. Numer. Anal. (ETNA)*, 65:26–62, 2026.
- [58] Vjeran Hari. On the convergence of certain cyclic Jacobi-like norm-reducing processes for real matrices. *Radovi Matematički*, 1(1):121–147, 1985.
- [59] Vjeran Hari. On Jacobi-type congruence transformations for a positive definite matrix. In Dragan Herzeg, editor, *Numerical Methods and Approximation Theory II*, pages 27–34. Institute of Mathematics, University of Novi Sad, Yugoslavia, 09 1985.
- [60] Vjeran Hari. On the quadratic convergence of Jacobi algorithms. *Radovi Matematički*, 2(1):127–146, 1986.
- [61] Vjeran Hari. On almost diagonal square matrices with multiple singular values. *Radovi Matematički*, 4(2):209–225, 1988.
- [62] Dukadjin Pupovci and Vjeran Hari. On the convergence of parallelized Eberlein methods. *Radovi Matematički*, 8(2):249–267, 1992/1998.
- [63] Josip Matejaš and Vjeran Hari. Scaled iterates by Kogbetliantz method. In Mladen Rogina, Zvonimir Tutek, Vjeran Hari, and Nedžad Limić, editors, *Proceedings of the 1. Conference on Applied Mathematics and Computation, Dubrovnik, Croatia, September 13-18, 1999*, 1999.
- [64] Hari Vjeran and Erna Begović Kovač. On the global convergence of the Jacobi method. *PAMM*, 16(1):725–726, 2016.
- [65] Josip Matejaš and Vjeran Hari. On the accuracy of the element-wise Jacobi methods for pgep. *PAMM*, 18, 2018.

Popis časopisa iz gornje liste, zajedno sa oznakama baza u kojima su indeksirani i sa trenutnim mjerama utjecaja (IF, IS, SJR). Svaki SCIE i CC rad je indeksiran iu SCOPUSu.

- Proceedings of ICNAAM su svi indeksirani u SCOPUS, a od 2006. i u AIP Conference Proceedings
- AIP Conference Proceedings (SCOPUS, SJR=0.37)
- Annali dell'Universita di Ferrara (SCOPUS, Q3, IF=1.11, SJR=0.307)
- Applied Mathematics and Computation (CC, SCIE, IF=3.4, SCOPUS Q1)
- BIT Numerical Mathematics (CC, SCIE, IF=1.74)
- Calcolo (CC, SCIE, IF=1.4)
- Computing (CC, SCIE, IF=2.8)
- ETNA-Electronic Transactions Numerical Analysis (SCIE, IF=0.97)
- Glasnik Matematički (SCIE, IF=0.6)
- JNAIAM-Journal of Numerical Analysis Industrial and Applied Mathematics (SCOPUS, IS=0.75, SJR=0.184)
- Linear Algebra and Its Applications (CC, SCIE, IF=1.1)
- Linear and Multilinear Algebra (CC,SCIE, IF=1.18)
- Mathematical Communications (SCIE, IF=0.48)
- Numerical Algorithms (CC, SCIE, IF=2.0)
- Numerische Mathematik (CC, SCIE, IF=2.2)
- SIAM Journal on Matrix Analysis and Applications (CC, SCIE, IF=1.944)
- SIAM Journal on Scientific and Statistical Computing (CC, SCIE, IF=3.0)
- ZAMM-Zeitschrift Fur Angewandte Mathematik Und Mechanik (CC, SCIE, IF=3.2)

Sarajevski časopis Radovi matematički, koji je bio u rangu hrvatskih časopisa Glasnik matematički i Mathematical Communications, prestao je izlaziti još od početka rata 1992. Stoga ga nema u gore spomenutim bazama.