

Publications by Bo Kågström.

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The publications are structured under the following headings:

- Books
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- Peer-reviewed Conference Proceedings Publications
- Notes
- NLA FET Deliverables and Working Notes
- Technical Reports and Other Publications
- Scientific and Library Software

Publications are listed in reversed chronological order under each heading.

BOOKS

- [1] R. Ciegis, D. Henty, B. Kågström, and J. Zilinskas, editors. *Parallel Scientific Computing and Optimization—Advances and Applications*. Springer Optimization and Its Applications, Vol. 27. Springer, 2009.
- [2] B. Kågström, E. Elmroth, J. Dongarra, and J. Wasniewski, editors. *Applied Parallel Computing: State of the Art in Scientific Computing, PARA 2006*. Lecture Notes in Computer Science, LNCS 4699. Springer, 2007.
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- [4] B. Kågström and A. Ruhe, editors. *Matrix Pencils, Proceedings, Pite havsbad, 1982*. Lecture Notes in Mathematics, Vol. 973. Springer-Verlag, Berlin Heidelberg, 1983.

SCIENTIFIC JOURNAL PUBLICATIONS AND INVITED BOOK CHAPTERS

- [5] A. Dmytryshyn, S. Johansson, B. Kågström, and P. Van Dooren. Geometry of Matrix Polynomial Spaces. *Found Comput Math*, 2019. Pages 1–28.
- [6] A. Dmytryshyn, S. Johansson, and B. Kågström. Canonical structure transitions of system pencils. *SIAM J. Matrix Anal. Appl.*, 38(4):1249–1267, 2017.
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NLAFET DELIVERABLES AND WORKING NOTES

As Coordinator and Scientific Director of NLAFET, acronym for Parallel Numerical Linear Algebra for Extreme Scale Systems, a selection of co-authored public deliverables and NLAFET working notes are listed below. NLAFET is a Horizon 2020 FET-HPC project funded by the European Union under Grant Agreement 671633. See www.nlafet.eu for more information and a complete description of NLAFET progress and results of all partner teams.

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SCIENTIFIC AND LIBRARY SOFTWARE

Several of the publications have resulted in state-of-the-art scientific and library software that is publicly available, e.g., in Collected Algorithms of ACM, NETLIB: GEMM-based Level 3 BLAS, JNF and GUPTRI, RECSY, SCASY, LAPACK, ScaLAPACK-style routines, SLICOT, StratiGraph, MCS Toolbox, NLA-FET Library including StarNEig. See a selection below:

- [161] GUPTRI - Guptri Software for singular pencils. See http://www8.cs.umu.se/research/nla/singular_pairs/guptri/.
- [162] StratiGraph and MCS Toolbox: Computation and display of the stratification of Jordan and Kronecker structures. See <https://www.umu.se/forskning/projekt/stratigraph-and-mcs-toolbox/>.
- [163] RECSY - High Performance library for Sylvester-type matrix equations. See <http://www8.cs.umu.se/research/parallel/recsy>.
- [164] SCASY - ScaLAPACK-style solvers for Sylvester-type matrix equations. See <http://www8.cs.umu.se/research/parallel/scasy>.
- [165] PxSEQR: Nonsymmetric eigenvalue problem—parallel library software in ScaLAPACK 2.0.0. See <http://netlib.org/scalapack/scalapack-2.0.0.html>.
- [166] NLA-FET Software Library. <http://www.nlafet.eu/software/>.