

Lars Grasedyck

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

2,174
citations

430442

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476904

29
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31
all docs

31
docs citations

31
times ranked

1199
citing authors

#	ARTICLE	IF	CITATIONS
1	A literature survey of low-rank tensor approximation techniques. GAMM Mitteilungen, 2013, 36, 53-78.	2.7	403
2	Hierarchical Singular Value Decomposition of Tensors. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2029-2054.	0.7	361
3	Construction and Arithmetics of H-Matrices. Computing (Vienna/New York), 2003, 70, 295-334.	3.2	326
4	Introduction to hierarchical matrices with applications. Engineering Analysis With Boundary Elements, 2003, 27, 405-422.	2.0	265
5	A projection method to solve linear systems in tensor format. Numerical Linear Algebra With Applications, 2013, 20, 27-43.	0.9	127
6	Hybrid cross approximation of integral operators. Numerische Mathematik, 2005, 101, 221-249.	0.9	112
7	Black box approximation of tensors in hierarchical Tucker format. Linear Algebra and Its Applications, 2013, 438, 639-657.	0.4	79
8	Domain decomposition based \mathcal{H} -LU preconditioning. Numerische Mathematik, 2009, 112, 565-600.	0.9	59
9	Parallel black box \mathcal{H} -LU preconditioning for elliptic boundary value problems. Computing and Visualization in Science, 2008, 11, 273-291.	1.2	48
10	An Introduction to Hierarchical (H-) Rank and TT-Rank of Tensors with Examples. Computational Methods in Applied Mathematics, 2011, 11, 291-304.	0.4	44
11	Low-Rank Approximation of Integral Operators by Interpolation. Computing (Vienna/New York), 2004, 72, 325.	3.2	43
12	H-matrix Preconditioners in Convection-Dominated Problems. SIAM Journal on Matrix Analysis and Applications, 2006, 27, 1172-1183.	0.7	43
13	Black Box Low Tensor-Rank Approximation Using Fiber-Crosses. Constructive Approximation, 2009, 30, 557-597.	1.8	39
14	Variants of Alternating Least Squares Tensor Completion in the Tensor Train Format. SIAM Journal of Scientific Computing, 2015, 37, A2424-A2450.	1.3	39
15	Hierarchical Tensor Approximation of Output Quantities of Parameter-Dependent PDEs. SIAM-ASA Journal on Uncertainty Quantification, 2015, 3, 852-872.	1.1	33
16	Tensor-Sparsity of Solutions to High-Dimensional Elliptic Partial Differential Equations. Foundations of Computational Mathematics, 2016, 16, 813-874.	1.5	32
17	A Multigrid Method to Solve Large Scale Sylvester Equations. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 870-894.	0.7	25
18	Tree Adaptive Approximation in the Hierarchical Tensor Format. SIAM Journal of Scientific Computing, 2014, 36, A1415-A1431.	1.3	25

#	ARTICLE	IF	CITATIONS
19	Domain-decomposition Based \hat{A} , \hat{C} -LU Preconditioners. , 2007, , 667-674.		17
20	Distributed hierarchical SVD in the Hierarchical Tucker format. Numerical Linear Algebra With Applications, 2018, 25, e2174.	0.9	13
21	Parallel tensor sampling in the hierarchical Tucker format. Computing and Visualization in Science, 2015, 17, 67-78.	1.2	11
22	Stable ALS approximation in the TT-format for rank-adaptive tensor completion. Numerische Mathematik, 2019, 143, 855-904.	0.9	8
23	A two-stage surrogate model for Neo-Hookean problems based on adaptive proper orthogonal decomposition and hierarchical tensor approximation. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113368.	3.4	6
24	Challenges of order reduction techniques for problems involving polymorphic uncertainty. GAMM Mitteilungen, 2019, 42, e201900011.	2.7	5
25	Solving an elliptic PDE eigenvalue problem via automated multi-level substructuring and hierarchical matrices. Computing and Visualization in Science, 2013, 16, 283-302.	1.2	3
26	A Review on Adaptive Low-Rank Approximation Techniques in the Hierarchical Tensor Format. Lecture Notes in Computational Science and Engineering, 2014, , 195-210.	0.1	2
27	Space and Time Parallel Multigrid for Optimization and Uncertainty Quantification in PDE Simulations. Lecture Notes in Computational Science and Engineering, 2016, , 507-523.	0.1	2
28	Bayesian inversion for electromyography using low-rank tensor formats. Inverse Problems, 2021, 37, 055003.	1.0	2
29	Low rank surrogates for fuzzy stochastic partial differential equations. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900376.	0.2	1
30	7th Workshop on Matrix Equations and Tensor Techniques. Numerical Linear Algebra With Applications, 2018, 25, e2223.	0.9	0