

Bart Vandereycken

List of Publications by Year in descending order

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Version: 2024-02-01

23
papers

1,481
citations

623734

14
h-index

752698

20
g-index

23
all docs

23
docs citations

23
times ranked

1314
citing authors

#	ARTICLE	IF	CITATIONS
1	Unifying time evolution and optimization with matrix product states. <i>Physical Review B</i> , 2016, 94, .	3.2	387
2	Low-Rank Matrix Completion by Riemannian Optimization. <i>SIAM Journal on Optimization</i> , 2013, 23, 1214-1236.	2.0	274
3	Low-rank tensor completion by Riemannian optimization. <i>BIT Numerical Mathematics</i> , 2014, 54, 447-468.	2.0	185
4	Time Integration of Tensor Trains. <i>SIAM Journal on Numerical Analysis</i> , 2015, 53, 917-941.	2.3	117
5	Dynamical Approximation by Hierarchical Tucker and Tensor-Train Tensors. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2013, 34, 470-494.	1.4	110
6	Lipidomics reveals diurnal lipid oscillations in human skeletal muscle persisting in cellular myotubes cultured in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8565-E8574.	7.1	74
7	The geometry of algorithms using hierarchical tensors. <i>Linear Algebra and Its Applications</i> , 2013, 439, 133-166.	0.9	73
8	A Riemannian Optimization Approach for Computing Low-Rank Solutions of Lyapunov Equations. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2010, 31, 2553-2579.	1.4	59
9	Subspace Methods for Computing the Pseudospectral Abscissa and the Stability Radius. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2014, 35, 292-313.	1.4	29
10	Ether lipids, sphingolipids and toxic α -deoxyceramides as hallmarks for lean and obese type 2 diabetic patients. <i>Acta Physiologica</i> , 2021, 232, e13610.	3.8	29
11	Time Integration of Rank-Constrained Tucker Tensors. <i>SIAM Journal on Numerical Analysis</i> , 2018, 56, 1273-1290.	2.3	28
12	Preconditioned Low-rank Riemannian Optimization for Linear Systems with Tensor Product Structure. <i>SIAM Journal of Scientific Computing</i> , 2016, 38, A2018-A2044.	2.8	27
13	Automatic rational approximation and linearization of nonlinear eigenvalue problems. <i>IMA Journal of Numerical Analysis</i> , 2022, 42, 1087-1115.	2.9	21
14	Projection Methods for Dynamical Low-Rank Approximation of High-Dimensional Problems. <i>Computational Methods in Applied Mathematics</i> , 2019, 19, 73-92.	0.8	16
15	The core clock transcription factor BMAL1 drives circadian \hat{I}^2 -cell proliferation during compensatory regeneration of the endocrine pancreas. <i>Genes and Development</i> , 2020, 34, 1650-1665.	5.9	13
16	Geometric Methods on Low-Rank Matrix and Tensor Manifolds. , 2020, , 261-313.		12
17	Greedy rank updates combined with Riemannian descent methods for low-rank optimization. , 2015, , .		9
18	Subspace Acceleration for the Crawford Number and Related Eigenvalue Optimization Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2018, 39, 961-982.	1.4	6

#	ARTICLE	IF	CITATIONS
19	On critical points of quadratic low-rank matrix optimization problems. IMA Journal of Numerical Analysis, 2020, 40, 2626-2651.	2.9	4
20	Explicit stabilised gradient descent for faster strongly convex optimisation. BIT Numerical Mathematics, 2021, 61, 119-139.	2.0	4
21	Criss-Cross Type Algorithms for Computing the Real Pseudospectral Abscissa. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 891-923.	1.4	3
22	Riemannian Multigrid Line Search for Low-Rank Problems. SIAM Journal of Scientific Computing, 2021, 43, A1803-A1831.	2.8	1
23	A Note on the Optimal Convergence Rate of Descent Methods with Fixed Step Sizes for Smooth Strongly Convex Functions. Journal of Optimization Theory and Applications, 0, , 1.	1.5	0