Bart Vandereycken

List of Publications by Year
in descending order

23 papers	1,481 citations	706676 14 h-index	843174 20 g-index
23 all docs	23 docs citations	23 times ranked	1491 citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic rational approximation and linearization of nonlinear eigenvalue problems. IMA Journal of Numerical Analysis, 2022, 42, 1087-1115.	1.5	21
2	Explicit stabilised gradient descent for faster strongly convex optimisation. BIT Numerical Mathematics, 2021, 61, 119-139.	1.0	4
3	Ether lipids, sphingolipids and toxic 1‑deoxyceramides as hallmarks for lean and obese type 2 diabetic patients. Acta Physiologica, 2021, 232, e13610.	1.8	29
4	Riemannian Multigrid Line Search for Low-Rank Problems. SIAM Journal of Scientific Computing, 2021, 43, A1803-A1831.	1.3	1
5	On critical points of quadratic low-rank matrix optimization problems. IMA Journal of Numerical Analysis, 2020, 40, 2626-2651.	1.5	4
6	The core clock transcription factor BMAL1 drives circadian β-cell proliferation during compensatory regeneration of the endocrine pancreas. Genes and Development, 2020, 34, 1650-1665.	2.7	13
7	Geometric Methods on Low-Rank Matrix and Tensor Manifolds. , 2020, , 261-313.		12
8	Projection Methods for Dynamical Low-Rank Approximation of High-Dimensional Problems. Computational Methods in Applied Mathematics, 2019, 19, 73-92.	0.4	16
9	Subspace Acceleration for the Crawford Number and Related Eigenvalue Optimization Problems. SIAM Journal on Matrix Analysis and Applications, 2018, 39, 961-982.	0.7	6
10	Time Integration of Rank-Constrained Tucker Tensors. SIAM Journal on Numerical Analysis, 2018, 56, 1273-1290.	1.1	28
11	Criss-Cross Type Algorithms for Computing the Real Pseudospectral Abscissa. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 891-923.	0.7	3
12	Lipidomics reveals diurnal lipid oscillations in human skeletal muscle persisting in cellular myotubes cultured in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8565-E8574.	3.3	74
13	Unifying time evolution and optimization with matrix product states. Physical Review B, 2016, 94, .	1.1	387
14	Preconditioned Low-rank Riemannian Optimization for Linear Systems with Tensor Product Structure. SIAM Journal of Scientific Computing, 2016, 38, A2018-A2044.	1.3	27
15	Greedy rank updates combined with Riemannian descent methods for low-rank optimization. , 2015, , .		9
16	Time Integration of Tensor Trains. SIAM Journal on Numerical Analysis, 2015, 53, 917-941.	1.1	117
17	Subspace Methods for Computing the Pseudospectral Abscissa and the Stability Radius. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 292-313.	0.7	29
18	Low-rank tensor completion by Riemannian optimization. BIT Numerical Mathematics, 2014, 54, 447-468.	1.0	185

#	Article	IF	Citations
19	The geometry of algorithms using hierarchical tensors. Linear Algebra and Its Applications, 2013, 439, 133-166.	0.4	73
20	Dynamical Approximation by Hierarchical Tucker and Tensor-Train Tensors. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 470-494.	0.7	110
21	Low-Rank Matrix Completion by Riemannian Optimization. SIAM Journal on Optimization, 2013, 23, 1214-1236.	1.2	274
22	A Riemannian Optimization Approach for Computing Low-Rank Solutions of Lyapunov Equations. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2553-2579.	0.7	59
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.	0.8	0