

Theo Mary

List of Publications by Year in descending order

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Version: 2024-02-01

20
papers

508
citations

758635

12
h-index

887659

17
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all docs

20
docs citations

20
times ranked

357
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance and Scalability of the Block Low-Rank Multifrontal Factorization on Multicore Architectures. <i>ACM Transactions on Mathematical Software</i> , 2019, 45, 1-26.	1.6	135
2	Fast 3D frequency-domain full-waveform inversion with a parallel block low-rank multifrontal direct solver: Application to OBC data from the North Sea. <i>Geophysics</i> , 2016, 81, R363-R383.	1.4	55
3	A New Approach to Probabilistic Rounding Error Analysis. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A2815-A2835.	1.3	50
4	On the Complexity of the Block Low-Rank Multifrontal Factorization. <i>SIAM Journal of Scientific Computing</i> , 2017, 39, A1710-A1740.	1.3	40
5	Mixed Precision Block Fused Multiply-Add: Error Analysis and Application to GPU Tensor Cores. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, C124-C141.	1.3	29
6	Mixed precision algorithms in numerical linear algebra. <i>Acta Numerica</i> , 2022, 31, 347-414.	6.3	29
7	Stochastic Rounding and Its Probabilistic Backward Error Analysis. <i>SIAM Journal of Scientific Computing</i> , 2021, 43, A566-A585.	1.3	26
8	Large-scale 3-D EM modelling with a Block Low-Rank multifrontal direct solver. <i>Geophysical Journal International</i> , 2017, 209, 1558-1571.	1.0	25
9	A Class of Fast and Accurate Summation Algorithms. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, A1541-A1557.	1.3	22
10	Bridging the Gap Between Flat and Hierarchical Low-Rank Matrix Formats: The Multilevel Block Low-Rank Format. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A1414-A1442.	1.3	18
11	A New Preconditioner that Exploits Low-Rank Approximations to Factorization Error. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A59-A82.	1.3	17
12	Stochastic rounding: implementation, error analysis and applications. <i>Royal Society Open Science</i> , 2022, 9, 211631.	1.1	17
13	Sharper Probabilistic Backward Error Analysis for Basic Linear Algebra Kernels with Random Data. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, A3427-A3446.	1.3	14
14	Robust and Accurate Stopping Criteria for Adaptive Randomized Sampling in Matrix-Free Hierarchically Semiseparable Construction. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, S61-S85.	1.3	6
15	Solving block low-rank linear systems by LU factorization is numerically stable. <i>IMA Journal of Numerical Analysis</i> , 2022, 42, 951-980.	1.5	6
16	Improving the Complexity of Block Low-Rank Factorizations with Fast Matrix Arithmetic. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2019, 40, 1478-1496.	0.7	4
17	Block Low-Rank Matrices with Shared Bases: Potential and Limitations of the BLR ² Format. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2021, 42, 990-1010.	0.7	4
18	Block low-rank single precision coarse grid solvers for extreme scale multigrid methods. <i>Numerical Linear Algebra With Applications</i> , 0, , e2407.	0.9	4

#	ARTICLE	IF	CITATIONS
19	Performance of random sampling for computing low-rank approximations of a dense matrix on GPUs. , 2015, , .		4
20	Access-averse framework for computing low-rank matrix approximations. , 2014, , .		3