

Henning Meyerhenke

List of Publications by Year in descending order

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76
papers

1,767
citations

471371

17
h-index

395590

33
g-index

85
all docs

85
docs citations

85
times ranked

1179
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Advances in Graph Partitioning. Lecture Notes in Computer Science, 2016, , 117-158.	1.0	246
2	NetworkKit: A tool suite for large-scale complex network analysis. Network Science, 2016, 4, 508-530.	0.8	140
3	Mathematical foundations of the GraphBLAS. , 2016, , .		131
4	Engineering Parallel Algorithms for Community Detection in Massive Networks. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 171-184.	4.0	108
5	Parallel Graph Partitioning for Complex Networks. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 2625-2638.	4.0	93
6	Benchmarking for Graph Clustering and Partitioning. , 2014, , 73-82.		58
7	k -way Hypergraph Partitioning via n -Level Recursive Bisection. , 2016, , .		45
8	Graph partitioning and disturbed diffusion. Parallel Computing, 2009, 35, 544-569.	1.3	41
9	Engineering High-Performance Community Detection Heuristics for Massive Graphs. , 2013, , .		40
10	A new diffusion-based multilevel algorithm for computing graph partitions. Journal of Parallel and Distributed Computing, 2009, 69, 750-761.	2.7	39
11	Partitioning Complex Networks via Size-Constrained Clustering. Lecture Notes in Computer Science, 2014, , 351-363.	1.0	37
12	Scalable Multi-threaded Community Detection in Social Networks. , 2012, , .		36
13	Graphs, Matrices, and the GraphBLAS: Seven Good Reasons. Procedia Computer Science, 2015, 51, 2453-2462.	1.2	36
14	Tracking Structure of Streaming Social Networks. , 2011, , .		34
15	Parallel Community Detection for Massive Graphs. Lecture Notes in Computer Science, 2012, , 286-296.	1.0	33
16	Improving the Betweenness Centrality of a Node by Adding Links. Journal of Experimental Algorithmics, 2018, 23, 1-32.	0.7	33
17	Approximating Betweenness Centrality in Large Evolving Networks. , 2015, , 133-146.		29
18	Approximating Betweenness Centrality in Fully Dynamic Networks. Internet Mathematics, 2016, 12, 281-314.	0.7	26

#	ARTICLE	IF	CITATIONS
19	Parallel Graph Partitioning for Complex Networks. , 2015, , .		25
20	A new diffusion-based multilevel algorithm for computing graph partitions of very high quality. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	24
21	A distributed diffusive heuristic for clustering a virtual P2P supercomputer. , 2010, , .		22
22	Structure-Preserving Sparsification of Social Networks. , 2015, , .		22
23	Structure-preserving sparsification methods for social networks. Social Network Analysis and Mining, 2016, 6, 1.	1.9	21
24	Engineering a Combinatorial Laplacian Solver: Lessons Learned. Algorithms, 2016, 9, 72.	1.2	20
25	Generating Random Hyperbolic Graphs in Subquadratic Time. Lecture Notes in Computer Science, 2015, , 467-478.	1.0	20
26	Generating realistic scaled complex networks. Applied Network Science, 2017, 2, 36.	0.8	17
27	Computing Top- <i>k</i> Closeness Centrality in Fully-dynamic Graphs. , 2018, , 21-35.		17
28	Computing top- <i>k</i> Closeness Centrality Faster in Unweighted Graphs. ACM Transactions on Knowledge Discovery From Data, 2019, 13, 1-40.	2.5	17
29	Generating massive complex networks with hyperbolic geometry faster in practice. , 2016, , .		15
30	Computing Top- <i>k</i> Closeness Centrality Faster in Unweighted Graphs. , 2016, , .		14
31	Tree-Based Coarsening and Partitioning of Complex Networks. Journal of Experimental Algorithmics, 2016, 21, 1-20.	0.7	14
32	PASQUAL: Parallel Techniques for Next Generation Genome Sequence Assembly. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 977-986.	4.0	13
33	Balancing Parallel Adaptive FEM Computations by Solving Systems of Linear Equations. Lecture Notes in Computer Science, 2005, , 209-219.	1.0	13
34	Algorithms for Mapping Parallel Processes onto Grid and Torus Architectures. , 2015, , .		12
35	Partitioning (hierarchically clustered) complex networks via size-constrained graph clustering. Journal of Heuristics, 2016, 22, 759-782.	1.1	12
36	Drawing Large Graphs by Multilevel Maxent-Stress Optimization. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1814-1827.	2.9	12

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37	Guidelines for Experimental Algorithmics: A Case Study in Network Analysis. <i>Algorithms</i> , 2019, 12, 127.	1.2	12
38	Drawing Large Graphs by Multilevel Maxent-Stress Optimization. <i>Lecture Notes in Computer Science</i> , 2015, , 30-43.	1.0	11
39	Dynamic Load Balancing for Parallel Numerical Simulations Based on Repartitioning with Disturbed Diffusion. , 2009, , .		9
40	Analysis of streaming social networks and graphs on multicore architectures. , 2012, , .		9
41	Detecting communities around seed nodes in complex networks. , 2014, , .		9
42	An empirical comparison of Big Graph frameworks in the context of network analysis. <i>Social Network Analysis and Mining</i> , 2016, 6, 1.	1.9	8
43	Shared Memory Parallel Subgraph Enumeration. , 2017, , .		8
44	Scaling up Group Closeness Maximization. , 2018, , 209-222.		8
45	Balanced k-means for Parallel Geometric Partitioning. , 2018, , .		8
46	Querying Probabilistic Neighborhoods in Spatial Data Sets Efficiently. <i>Lecture Notes in Computer Science</i> , 2016, , 449-460.	1.0	8
47	Beyond Good Partition Shapes: An Analysis of Diffusive Graph Partitioning. <i>Algorithmica</i> , 2012, 64, 329-361.	1.0	7
48	Static and Dynamic Aspects of Scientific Collaboration Networks. , 2012, , .		7
49	Combined centrality measures for an improved characterization of influence spread in social networks. <i>Journal of Complex Networks</i> , 2020, 8, .	1.1	7
50	Tree-Based Coarsening and Partitioning of Complex Networks. <i>Lecture Notes in Computer Science</i> , 2014, , 364-375.	1.0	7
51	Estimating Current-Flow Closeness Centrality with a Multigrid Laplacian Solver. , 2016, , 1-12.		6
52	Better Partitions of Protein Graphs for Subsystem Quantum Chemistry. <i>Lecture Notes in Computer Science</i> , 2016, , 353-368.	1.0	6
53	Scaling up network centrality computations – A brief overview. <i>IT - Information Technology</i> , 2020, 62, 189-204.	0.6	6
54	Local Search for Group Closeness Maximization on Big Graphs. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
55	A Parallel Shape Optimizing Load Balancer. Lecture Notes in Computer Science, 2006, , 232-242.	1.0	5
56	Complex Network Analysis on Distributed Systems. , 2015, , .		4
57	diSTruct v1.0: generating biomolecular structures from distance constraints. Bioinformatics, 2019, 35, 5337-5338.	1.8	4
58	Scaling Betweenness Approximation to Billions of Edges by MPI-based Adaptive Sampling. , 2020, , .		4
59	Systematic Partitioning of Proteins for Quantum-Chemical Fragmentation Methods Using Graph Algorithms. Journal of Chemical Theory and Computation, 2021, 17, 1355-1367.	2.3	4
60	Benchmarking for Graph Clustering and Partitioning. , 2017, , 1-11.		4
61	Parallel Adaptive Sampling with Almost No Synchronization. Lecture Notes in Computer Science, 2019, , 434-447.	1.0	4
62	Is Nearly-linear the Same in Theory and Practice? A Case Study with a Combinatorial Laplacian Solver. Lecture Notes in Computer Science, 2015, , 205-218.	1.0	4
63	Updating Dynamic Random Hyperbolic Graphs in Sublinear Time. Journal of Experimental Algorithmics, 2018, 23, 1-30.	0.7	3
64	Benchmarking for Graph Clustering and Partitioning. , 2018, , 161-171.		3
65	The climatic interdependence of extreme-rainfall events around the globe. Chaos, 2022, 32, 043126.	1.0	3
66	Topology-induced Enhancement of Mappings. , 2018, , .		2
67	Scaling up Network Centrality Computations. , 2019, , .		2
68	Analyzing Disturbed Diffusion on Networks. Lecture Notes in Computer Science, 2006, , 429-438.	1.0	2
69	Many-to-many Correspondences between Partitions: Introducing a Cut-based Approach. , 2018, , 1-9.		2
70	On finding convex cuts in general, bipartite and plane graphs. Theoretical Computer Science, 2017, 695, 54-73.	0.5	1
71	Beyond Good Shapes: Diffusion-Based Graph Partitioning Is Relaxed Cut Optimization. Lecture Notes in Computer Science, 2010, , 387-398.	1.0	1
72	Distributing Sparse Matrix/Graph Applications in Heterogeneous Clusters - an Experimental Study. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
73	An MPI-based Algorithm for Mapping Complex Networks onto Hierarchical Architectures. Lecture Notes in Computer Science, 2021, , 167-182.	1.0	0
74	Topic 12: Theory and Algorithms for Parallel Computation. Lecture Notes in Computer Science, 2012, , 674-675.	1.0	0
75	Scalable Katz Ranking Computation in Large Static and Dynamic Graphs. Journal of Experimental Algorithmics, 0, , .	0.7	0
76	A Batch-dynamic Sutor Algorithm for Approximating Maximum Weighted Matching. Journal of Experimental Algorithmics, 2022, 27, 1-41.	0.7	0