

Fabrizio Grandoni

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,279
citations

394286

19
h-index

265120

42
g-index

88
all docs

88
docs citations

88
times ranked

1261
citing authors

#	ARTICLE	IF	CITATIONS
1	A measure & conquer approach for the analysis of exact algorithms. Journal of the ACM, 2009, 56, 1-32.	1.8	555
2	Steiner Tree Approximation via Iterative Randomized Rounding. Journal of the ACM, 2013, 60, 1-33.	1.8	193
3	An improved LP-based approximation for steiner tree. , 2010, , .		177
4	On the complexity of fixed parameter clique and dominating set. Theoretical Computer Science, 2004, 326, 57-67.	0.5	97
5	A note on the complexity of minimum dominating set. Journal of Discrete Algorithms, 2006, 4, 209-214.	0.7	82
6	Measure and Conquer: Domination " A Case Study. Lecture Notes in Computer Science, 2005, , 191-203.	1.0	82
7	Combinatorial bounds via measure and conquer. ACM Transactions on Algorithms, 2008, 5, 1-17.	0.9	76
8	Solving Connected Dominating Set Faster than $2n$. Algorithmica, 2008, 52, 153-166.	1.0	61
9	Measure and conquer. , 2006, , .		51
10	Refined memorization for vertex cover. Information Processing Letters, 2005, 93, 125-131.	0.4	49
11	Connected facility location via random facility sampling and core detouring. Journal of Computer and System Sciences, 2010, 76, 709-726.	0.9	39
12	Budgeted matching and budgeted matroid intersection via the gasoline puzzle. Mathematical Programming, 2011, 128, 355-372.	1.6	38
13	Tight Kernel Bounds for Problems on Graphs with Small Degeneracy. ACM Transactions on Algorithms, 2017, 13, 1-22.	0.9	37
14	New approaches to multi-objective optimization. Mathematical Programming, 2014, 146, 525-554.	1.6	34
15	Sharp Separation and Applications to Exact and Parameterized Algorithms. Algorithmica, 2012, 63, 692-706.	1.0	29
16	Subcubic Equivalences Between Graph Centrality Problems, APSP and Diameter. , 2015, , .		26
17	Improved Distance Sensitivity Oracles via Fast Single-Source Replacement Paths. , 2012, , .		25
18	Improved Approximation for Single-Sink Buy-at-Bulk. Lecture Notes in Computer Science, 2006, , 111-120.	1.0	25

#	ARTICLE	IF	CITATIONS
19	Optimal resilient sorting and searching in the presence of memory faults. Theoretical Computer Science, 2009, 410, 4457-4470.	0.5	24
20	Distributed weighted vertex cover via maximal matchings. ACM Transactions on Algorithms, 2008, 5, 1-12.	0.9	23
21	A Primal-Dual Bicriteria Distributed Algorithm for Capacitated Vertex Cover. SIAM Journal on Computing, 2008, 38, 825-840.	0.8	22
22	Optimal Resilient Sorting and Searching in the Presence of Memory Faults. Lecture Notes in Computer Science, 2006, , 286-298.	1.0	22
23	Iterative Rounding for Multi-Objective Optimization Problems. Lecture Notes in Computer Science, 2009, , 95-106.	1.0	20
24	How to Sell Hyperedges: The Hypermatching Assignment Problem. , 2013, , .		20
25	Improved approximation for tree augmentation: saving by rewiring. , 2018, , .		19
26	New Approaches for Virtual Private Network Design. SIAM Journal on Computing, 2007, 37, 706-721.	0.8	18
27	Designing reliable algorithms in unreliable memories. Computer Science Review, 2007, 1, 77-87.	10.2	18
28	A Mazing $2+\epsilon$ Approximation for Unsplittable Flow on a Path. , 2014, , .		18
29	Oblivious dimension reduction for k -means: beyond subspaces and the Johnson-Lindenstrauss lemma. , 2019, , .		18
30	New Approaches for Virtual Private Network Design. Lecture Notes in Computer Science, 2005, , 1151-1162.	1.0	18
31	Network Design via Core Detouring for Problems without a Core. Lecture Notes in Computer Science, 2010, , 490-502.	1.0	18
32	Dynamic set cover: improved algorithms and lower bounds. , 2019, , .		15
33	A short proof of the VPN Tree Routing Conjecture on ring networks. Operations Research Letters, 2008, 36, 361-365.	0.5	14
34	Truly Subcubic Algorithms for Language Edit Distance and RNA Folding via Fast Bounded-Difference Min-Plus Product. SIAM Journal on Computing, 2019, 48, 481-512.	0.8	13
35	Resilient dictionaries. ACM Transactions on Algorithms, 2009, 6, 1-19.	0.9	12
36	Approximation Algorithms for Single and Multi-Commodity Connected Facility Location. Lecture Notes in Computer Science, 2011, , 248-260.	1.0	12

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37	$O(k \log^2 k / \log \log k)$ -approximation algorithm for directed Steiner tree. , 2019, , .		11
38	Solving Connected Dominating Set Faster Than $2n$. Lecture Notes in Computer Science, 2006, , 152-163.	1.0	11
39	A linear time algorithm to list the minimal separators of chordal graphs. Discrete Mathematics, 2006, 306, 351-358.	0.4	10
40	Computing Optimal Steiner Trees in Polynomial Space. Algorithmica, 2013, 65, 584-604.	1.0	10
41	Approximating Geometric Knapsack via L-Packings. , 2017, , .		10
42	Approximation Schemes for Multi-Budgeted Independence Systems. Lecture Notes in Computer Science, 2010, , 536-548.	1.0	10
43	Breaching the 2-approximation barrier for connectivity augmentation: a reduction to Steiner tree. , 2020, , .		10
44	Set Covering with our Eyes Closed. , 2008, , .		9
45	From Uncertainty to Nonlinearity: Solving Virtual Private Network via Single-Sink Buy-at-Bulk. Mathematics of Operations Research, 2011, 36, 185-204.	0.8	9
46	Set Covering with Our Eyes Closed. SIAM Journal on Computing, 2013, 42, 808-830.	0.8	9
47	Truly Sub-cubic Algorithms for Language Edit Distance and RNA-Folding via Fast Bounded-Difference Min-Plus Product. , 2016, , .		9
48	Faster Replacement Paths and Distance Sensitivity Oracles. ACM Transactions on Algorithms, 2020, 16, 1-25.	0.9	9
49	The matching augmentation problem: a $\frac{7}{4}$ -approximation algorithm. Mathematical Programming, 2020, 182, 315-354.	1.6	8
50	A $(\frac{5}{3} + \hat{\mu})$ -approximation for unsplittable flow on a path: placing small tasks into boxes. , 2018, , .		7
51	Pricing on Paths: A PTAS for the Highway Problem. SIAM Journal on Computing, 2016, 45, 216-231.	0.8	6
52	Pricing on Paths: A PTAS for the Highway Problem. , 2011, , .		6
53	On Min-Power Steiner Tree. Lecture Notes in Computer Science, 2012, , 527-538.	1.0	6
54	Detecting directed 4-cycles still faster. Information Processing Letters, 2003, 87, 13-15.	0.4	5

#	ARTICLE	IF	CITATIONS
55	Utilitarian Mechanism Design for Multi-Objective Optimization. , 2010, , .		5
56	Surviving in directed graphs: a quasi-polynomial-time polylogarithmic approximation for two-connected directed Steiner tree. , 2017, , .		5
57	Improved Approximation Algorithms for Unsplittable Flow on a Path with Time Windows. Lecture Notes in Computer Science, 2015, , 13-24.	1.0	5
58	Data structures resilient to memory faults. Journal of Experimental Algorithmics, 2013, 18, .	0.7	4
59	Utilitarian Mechanism Design for Multiobjective Optimization. SIAM Journal on Computing, 2014, 43, 1263-1290.	0.8	4
60	$(1 + \epsilon)$ -Approximate Incremental Matching in Constant Deterministic Amortized Time. , 2019, , 1886-1898.		4
61	Online Edge Coloring Algorithms via the Nibble Method. , 2021, , 2830-2842.		4
62	On the Cycle Augmentation Problem: Hardness and Approximation Algorithms. Lecture Notes in Computer Science, 2020, , 138-153.	1.0	4
63	Data Structures Resilient to Memory Faults: An Experimental Study of Dictionaries. Lecture Notes in Computer Science, 2010, , 398-410.	1.0	4
64	A refined approximation for Euclidean k-means. Information Processing Letters, 2022, 176, 106251.	0.4	4
65	Balanced cut approximation in random geometric graphs. Theoretical Computer Science, 2009, 410, 2725-2731.	0.5	3
66	Stable routing under the Spanning Tree Protocol. Operations Research Letters, 2010, 38, 399-404.	0.5	3
67	To Augment or Not to Augment: Solving Unsplittable Flow on a Path by Creating Slack. , 2017, , .		3
68	On the Cycle Augmentation Problem: Hardness and Approximation Algorithms. Theory of Computing Systems, 2021, 65, 985.	0.7	3
69	 https://www.elsevier.com/locate/S0020717921000001 xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:tbl_struct="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x"/>	0.4	2
70	All-Pairs LCA in DAGs: Breaking through the $O(n^{2.5})$ barrier. , 2021, , 273-289.		2
71	A Path-Decomposition Theorem with Applications to Pricing and Covering on Trees. Lecture Notes in Computer Science, 2012, , 349-360.	1.0	2
72	A Mazing $2 + \epsilon$ Approximation for Unsplittable Flow on a Path. ACM Transactions on Algorithms, 2018, 14, 1-23.	0.9	1

#	ARTICLE	IF	CITATIONS
73	Sharp Separation and Applications to Exact and Parameterized Algorithms. Lecture Notes in Computer Science, 2010, , 72-83.	1.0	1
74	On Survivable Set Connectivity. , 2015, , .		1
75	Exact Algorithms for Maximum Independent Set. , 2016, , 680-683.		1
76	A PTAS for unsplittable flow on a path. , 2022, , .		1
77	Breaching the 2-approximation barrier for the forest augmentation problem. , 2022, , .		1
78	On maximum number of minimal dominating sets in graphs. Electronic Notes in Discrete Mathematics, 2005, 22, 157-162.	0.4	0
79	Online Network Design with Outliers. Algorithmica, 2016, 76, 88-109.	1.0	0
80	Editorial fun. Theoretical Computer Science, 2018, 748, 1.	0.5	0
81	Distributed Approximation Algorithms via LP-Duality and Randomization. Chapman & Hall/CRC Computer and Information Science Series, 2007, , 13-1-13-22.	0.4	0