

# Naoki Katoh

## List of Publications by Year in descending order

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72  
papers

949  
citations

471509

17  
h-index

552781

26  
g-index

74  
all docs

74  
docs citations

74  
times ranked

505  
citing authors

#	ARTICLE	IF	CITATIONS
1	Finding $k$ points with minimum diameter and related problems. <i>Journal of Algorithms</i> , 1991, 12, 38-56.	0.9	105
2	Resource Allocation Problems. , 1998, , 905-1006.		87
3	A Proof of the Molecular Conjecture. <i>Discrete and Computational Geometry</i> , 2011, 45, 647-700.	0.6	60
4	Group Symmetry in Interior-Point Methods for Semidefinite Program. <i>Optimization and Engineering</i> , 2001, 2, 293-320.	2.4	40
5	Mining Pharmacy Data Helps to Make Profits. <i>Data Mining and Knowledge Discovery</i> , 1998, 2, 391-398.	3.7	38
6	A linear time algorithm for testing maximal 1-planarity of graphs with a rotation system. <i>Theoretical Computer Science</i> , 2013, 513, 65-76.	0.9	34
7	A Linear-Time Algorithm for Testing Outer-1-Planarity. <i>Algorithmica</i> , 2015, 72, 1033-1054.	1.3	31
8	EFFICIENT ALGORITHMS FOR OPTIMIZATION-BASED IMAGE SEGMENTATION. <i>International Journal of Computational Geometry and Applications</i> , 2001, 11, 145-166.	0.5	29
9	Cautious transaction schedulers with admission control. <i>ACM Transactions on Database Systems</i> , 1985, 10, 205-229.	2.8	28
10	A parametric characterization and an $\hat{\mu}$ -approximation scheme for the minimization of a quasiconcave program. <i>Discrete Applied Mathematics</i> , 1987, 17, 39-66.	0.9	26
11	Arc-disjoint in-trees in directed graphs. <i>Combinatorica</i> , 2009, 29, 197-214.	1.2	26
12	Online graph exploration algorithms for cycles and trees by multiple searchers. <i>Journal of Combinatorial Optimization</i> , 2014, 28, 480-495.	1.3	24
13	A New Approximation Algorithm for the Capacitated Vehicle Routing Problem on a Tree. <i>Journal of Combinatorial Optimization</i> , 2001, 5, 213-231.	1.3	23
14	Resource Allocation Problems. , 2013, , 2897-2988.		21
15	Matrix Rounding under the $L_p$ -Discrepancy Measure and Its Application to Digital Halftoning. <i>SIAM Journal on Computing</i> , 2003, 32, 1423-1435.	1.0	20
16	Efficient Algorithms and Implementations for Optimizing the Sum of Linear Fractional Functions, with Applications. <i>Journal of Combinatorial Optimization</i> , 2005, 9, 69-90.	1.3	19
17	Rooted-Tree Decompositions with Matroid Constraints and the Infinitesimal Rigidity of Frameworks with Boundaries. <i>SIAM Journal on Discrete Mathematics</i> , 2013, 27, 155-185.	0.8	19
18	An approximation algorithm for the pickup and delivery vehicle routing problem on trees. <i>Discrete Applied Mathematics</i> , 2006, 154, 2335-2349.	0.9	17

#	ARTICLE	IF	CITATIONS
19	An efficient algorithm for the evacuation problem in a certain class of networks with uniform path-lengths. <i>Discrete Applied Mathematics</i> , 2009, 157, 3665-3677.	0.9	17
20	An Emergency Evacuation Planning Model Using the Universally Quickest Flow. <i>The Review of Socionetwork Strategies</i> , 2012, 6, 15-28.	1.5	15
21	Efficient Algorithms for Approximating a Multi-dimensional Voxel Terrain by a Unimodal Terrain. <i>Lecture Notes in Computer Science</i> , 2004, , 238-248.	1.3	15
22	A polynomial time algorithm for a chance-constrained single machine scheduling problem. <i>Operations Research Letters</i> , 1983, 2, 62-65.	0.7	14
23	The Fair Resource Allocation Problem with Submodular Constraints. <i>Mathematics of Operations Research</i> , 1988, 13, 164-173.	1.3	14
24	Efficient algorithms for minimum range cut problems. <i>Networks</i> , 1994, 24, 395-407.	2.7	14
25	Variants for the Hough transform for line detection. <i>Computational Geometry: Theory and Applications</i> , 1996, 6, 231-252.	0.5	14
26	Discovering Distinctive Spatial Patterns of Snatch Theft in Kyoto City with CAEP. <i>Journal of Asian Architecture and Building Engineering</i> , 2010, 9, 103-110.	2.0	14
27	Finding Subsets Maximizing Minimum Structures. <i>SIAM Journal on Discrete Mathematics</i> , 1999, 12, 342-359.	0.8	11
28	Combining Information Fusion with String Pattern Analysis: A New Method for Predicting Future Purchase Behavior. <i>Studies in Fuzziness and Soft Computing</i> , 2003, , 161-187.	0.8	11
29	A cautious scheduler for multistep transactions. <i>Algorithmica</i> , 1987, 2, 1-26.	1.3	10
30	A Machine Learning Algorithm for Analyzing String Patterns Helps to Discover Simple and Interpretable Business Rules from Purchase History. <i>Lecture Notes in Computer Science</i> , 2002, , 565-575.	1.3	9
31	Approximation of Optimal Two-Dimensional Association Rules for Categorical Attributes Using Semidefinite Programming. <i>Lecture Notes in Computer Science</i> , 1999, , 148-159.	1.3	9
32	Data Mining Oriented CRM Systems Based on MUSASHI: C-MUSASHI. <i>Lecture Notes in Computer Science</i> , 2005, , 152-173.	1.3	8
33	An $\hat{\mu}$ -approximation scheme for combinatorial optimization problems with minimum variance criterion. <i>Discrete Applied Mathematics</i> , 1992, 35, 131-141.	0.9	7
34	Enumerating Non-crossing Minimally Rigid Frameworks. <i>Graphs and Combinatorics</i> , 2007, 23, 117-134.	0.4	7
35	Fast Enumeration Algorithms for Non-crossing Geometric Graphs. <i>Discrete and Computational Geometry</i> , 2009, 42, 443-468.	0.6	7
36	A Linear-Time Algorithm for Testing Outer-1-Planarity. <i>Lecture Notes in Computer Science</i> , 2013, , 71-82.	1.3	7

#	ARTICLE	IF	CITATIONS
37	Enumerating Constrained Non-crossing Minimally Rigid Frameworks. <i>Discrete and Computational Geometry</i> , 2008, 40, 31-46.	0.6	6
38	Extended formulations for sparsity matroids. <i>Mathematical Programming</i> , 2016, 158, 565-574.	2.4	6
39	A unified scheme for detecting fundamental curves in binary edge images. <i>Computational Geometry: Theory and Applications</i> , 2001, 18, 73-93.	0.5	5
40	PARAMETRIC POLYMATROID OPTIMIZATION AND ITS GEOMETRIC APPLICATIONS. <i>International Journal of Computational Geometry and Applications</i> , 2002, 12, 429-443.	0.5	5
41	Voronoi Diagram with Respect to Criteria on Vision Information. , 2007, , .		5
42	Finding an Optimal Location of Line Facility using Evolutionary Algorithm and Integer Program. <i>Journal of Computational Science and Technology</i> , 2008, 2, 362-370.	0.4	5
43	A Survey on Facility Location Problems in Dynamic Flow Networks. <i>The Review of Socionetwork Strategies</i> , 2019, 13, 163-208.	1.5	5
44	Enumerating edge-constrained triangulations and edge-constrained non-crossing geometric spanning trees. <i>Discrete Applied Mathematics</i> , 2009, 157, 3569-3585.	0.9	4
45	A rooted-forest partition with uniform vertex demand. <i>Journal of Combinatorial Optimization</i> , 2012, 24, 67-98.	1.3	4
46	EVOLUTIONARY OPERATORS BASED ON ELITE SOLUTIONS FOR BI-OBJECTIVE COMBINATORIAL OPTIMIZATION. <i>Advances in Natural Computation</i> , 2004, , 555-579.	0.1	4
47	An efficient algorithm for the parametric resource allocation problem. <i>Discrete Applied Mathematics</i> , 1985, 10, 261-274.	0.9	3
48	Applying graph mining to discover substructures of room layouts which affect the rent of apartments. , 2007, , .		3
49	The universally quickest transshipment problem in a certain class of dynamic networks with uniform path-lengths. <i>Discrete Applied Mathematics</i> , 2014, 178, 89-100.	0.9	3
50	Enumeration of Floor Plans Based on a Zero-Suppressed Binary Decision Diagram. <i>International Journal of Architectural Computing</i> , 2015, 13, 25-44.	1.5	3
51	A two-commodity sharing problem on networks. <i>Networks</i> , 1991, 21, 547-563.	2.7	2
52	On Geometric Structure of Global Roundings for Graphs and Range Spaces. <i>Lecture Notes in Computer Science</i> , 2004, , 455-467.	1.3	2
53	Parametric search: three new applications. <i>Frontiers of Mathematics in China</i> , 2010, 5, 65-73.	0.7	2
54	An Efficient Algorithm for the Evacuation Problem in a Certain Class of a Network with Uniform Path-Lengths. , 2007, , 178-190.		2

#	ARTICLE	IF	CITATIONS
55	A new probabilistic analysis of Karger's randomized algorithm for minimum cut problems. Information Processing Letters, 1997, 64, 255-261.	0.6	1
56	A Multiversion Cautious Transaction Scheduler with Dynamic Version Selection. Systems and Computers in Japan, 1989, 20, 91-100.	0.2	1
57	A GEOMETRIC SPANNER OF SEGMENTS. International Journal of Computational Geometry and Applications, 2010, 20, 43-67.	0.5	1
58	Covering directed graphs by in-trees. Journal of Combinatorial Optimization, 2011, 21, 2-18.	1.3	1
59	Independent arborescences in directed graphs. Discrete Mathematics, 2013, 313, 453-459.	0.7	1
60	An inductive construction of minimally rigid body-hinge simple graphs. Theoretical Computer Science, 2014, 556, 2-12.	0.9	1
61	An Inductive Construction of Rigid Panel-Hinge Graphs and Their Applications to Form Design. International Journal of Architectural Computing, 2015, 13, 45-63.	1.5	1
62	Characterizing redundant rigidity and redundant global rigidity of body-hinge graphs. Information Processing Letters, 2016, 116, 175-178.	0.6	1
63	A population-based algorithm for solving linear assignment problems with two objectives. Computers and Operations Research, 2017, 79, 291-303.	4.0	1
64	Improving Upper and Lower Bounds for the Total Number of Edge Crossings of Euclidean Minimum Weight Laman Graphs. Lecture Notes in Computer Science, 2021, , 244-256.	1.3	1
65	Discovering Interpretable Rules that Explain Customers' Brand Choice Behavior. Lecture Notes in Computer Science, 2000, , 263-267.	1.3	1
66	A multiversion cautious scheduler with dynamic serialization constraints for database concurrency control. Discrete Applied Mathematics, 1992, 40, 379-395.	0.9	0
67	Voronoi diagrams with respect to criteria on vision information. Japan Journal of Industrial and Applied Mathematics, 2008, 25, 149-164.	0.9	0
68	Online Vertex Exploration Problems in a Simple Polygon. IEICE Transactions on Information and Systems, 2013, E96.D, 489-497.	0.7	0
69	123 Optimal Design of Flexible Structures utilizing Enumeration Algorithms for Rigid Framework. The Proceedings of OPTIS, 2006, 2006.7, 203-208.	0.0	0
70	124 Enumerating Non-crossing Minimally Rigid Frameworks for Mechanism Optimization Problems. The Proceedings of OPTIS, 2006, 2006.7, 209-214.	0.0	0
71	COST PLANNING SYSTEM FOR PUBLIC BUILDING CONSTRUCTION PROJECTS (Building Economics and Management) Tj ETQq1 1 0.784314 0.3 0.3 BT / Over	0.3	0
72	An Inductive Construction of Minimally Rigid Body-Hinge Simple Graphs. Lecture Notes in Computer Science, 2013, , 165-177.	1.3	0