Antonio Mucherino

List of Publications by Year
in descending order

60 papers	1,741 citations	361045 20 h-index	301761 39 g-index
64 all docs	64 docs citations	64 times ranked	884 citing authors

#	Article	IF	Citations
1	Euclidean Distance Geometry and Applications. SIAM Review, 2014, 56, 3-69.	4.2	317
2	Monkey search: a novel metaheuristic search for global optimization. AIP Conference Proceedings, 2007, , .	0.3	181
3	Data Mining in Agriculture. Springer Optimization and Its Applications, 2009, , .	0.6	111
4	The discretizable molecular distance geometry problem. Computational Optimization and Applications, 2012, 52, 115-146.	0.9	98
5	Molecular distance geometry methods: from continuous to discrete. International Transactions in Operational Research, 2011, 18, 33-51.	1.8	90
6	The interval Branch-and-Prune algorithm for the discretizable molecular distance geometry problem with inexact distances. Journal of Global Optimization, 2013, 56, 855-871.	1.1	81
7	A survey of data mining techniques applied to agriculture. Operational Research, 2009, 9, 121-140.	1.3	78
8	Recent advances on the Discretizable Molecular Distance Geometry Problem. European Journal of Operational Research, 2012, 219, 698-706.	3.5	63
9	Discretization orders for distance geometry problems. Optimization Letters, 2012, 6, 783-796.	0.9	62
10	The discretizable distance geometry problem. Optimization Letters, 2012, 6, 1671-1686.	0.9	60
11	Assigned and unassigned distance geometry: applications to biological molecules and nanostructures. 4or, 2016, 14, 337-376.	1.0	45
12	On the number of realizations of certain Henneberg graphs arising in protein conformation. Discrete Applied Mathematics, 2014, 165, 213-232.	0.5	43
13	An algorithm to enumerate all possible protein conformations verifying a set of distance constraints. BMC Bioinformatics, 2015, 16, 23.	1.2	42
14	On the computation of protein backbones by using artificial backbones of hydrogens. Journal of Global Optimization, 2011, 50, 329-344.	1.1	30
15	EXPLOITING SYMMETRY PROPERTIES OF THE DISCRETIZABLE MOLECULAR DISTANCE GEOMETRY PROBLEM. Journal of Bioinformatics and Computational Biology, 2012, 10, 1242009.	0.3	28
16	Discretization orders and efficient computation of cartesian coordinates for distance geometry. Optimization Letters, 2014, 8, 2111-2125.	0.9	28
17	Systematic Exploration of Protein Conformational Space Using a Distance Geometry Approach. Journal of Chemical Information and Modeling, 2019, 59, 4486-4503.	2.5	25
18	Recent advances on the interval distance geometry problem. Journal of Global Optimization, 2017, 69, 525-545.	1.1	24

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19	Interior-Point Solver for Large-Scale Quadratic Programming Problems with Bound Constraints. Journal of Optimization Theory and Applications, 2006, 129, 55-75.	0.8	22
20	The Discretizable Molecular Distance Geometry Problem seems Easier on Proteins. , 2013, , 47-60.		22
21	Discretization orders for protein side chains. Journal of Global Optimization, 2014, 60, 333-349.	1.1	21
22	Recent results on assigned and unassigned distance geometry with applications to protein molecules and nanostructures. Annals of Operations Research, 2018, 271, 161-203.	2.6	21
23	Comparisons between an exact and a metaheuristic algorithm for the molecular distance geometry problem. , 2009, , .		17
24	On the Identification of Discretization Orders for Distance Geometry with Intervals. Lecture Notes in Computer Science, 2013, , 231-238.	1.0	17
25	Distance Geometry in Structural Biology: New Perspectives. , 2013, , 329-350.		16
26	MD-jeep: An Implementation of a Branch and Prune Algorithm for Distance Geometry Problems. Lecture Notes in Computer Science, 2010, , 186-197.	1.0	16
27	On a discretizable subclass of instances of the molecular distance geometry problem. , 2009, , .		13
28	Optimal partial discretization orders for discretizable distance geometry. International Transactions in Operational Research, 2016, 23, 947-967.	1.8	12
29	Influence of Pruning Devices on the Solution of Molecular Distance Geometry Problems. Lecture Notes in Computer Science, 2011, , 206-217.	1.0	12
30	Normalized Euclidean distance matrices for human motion retargeting. , 2017, , .		11
31	An Approach to Dynamical Distance Geometry. Lecture Notes in Computer Science, 2017, , 821-829.	1.0	11
32	An adaptive branching scheme for the Branch & Prune algorithm applied to Distance Geometry. , 0, , .		8
33	A symmetry-based splitting strategy for discretizable distance geometry problems. Journal of Global Optimization, 2018, 71, 717-733.	1.1	8
34	A Pseudo de Bruijn Graph Representation for Discretization Orders for Distance Geometry. Lecture Notes in Computer Science, 2015, , 514-523.	1.0	8
35	On the Number of Solutions of the Discretizable Molecular Distance Geometry Problem. Lecture Notes in Computer Science, 2011, , 322-342.	1.0	8
36	DISCRETE APPROACHES FOR SOLVING MOLECULAR DISTANCE GEOMETRY PROBLEMS USING NMR DATA. International Journal of Computational Bioscience, 2010, 1, .	0.2	8

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37	Ant Colony Optimization with environment changes: an application to GPS surveying. , 0, , .		7
38	Introducing the Environment in Ant Colony Optimization. Studies in Computational Intelligence, 2016, , 147-158.	0.7	7
39	Modeling and Solving Real-Life Global Optimization Problems with Meta-heuristic Methods. Springer Optimization and Its Applications, 2009, , 403-419.	0.6	6
40	An application-based characterization of dynamical distance geometry problems. Optimization Letters, 2020, 14, 493-507.	0.9	6
41	Application of Monkey Search Meta-heuristic to Solving Instances of the Multidimensional Assignment Problem. Lecture Notes in Control and Information Sciences, 2009, , 385-397.	0.6	5
42	A Distance-Based Approach for Human Posture Simulations. , 0, , .		5
43	An Efficient Exhaustive Search for the Discretizable Distance Geometry Problem with Interval Data. , 0, , .		5
44	A Coarse-Grained Representation for Discretizable Distance Geometry with Interval Data. Lecture Notes in Computer Science, 2019, , 3-13.	1.0	5
45	The Referenced Vertex Ordering Problem: Theory, Applications, and Solution Methods. Open Journal of Mathematical Optimization, 0, 2, 1-29.	0.0	4
46	Understanding the role of the topology in protein folding by computational inverse folding experiments. Computational Biology and Chemistry, 2008, 32, 233-239.	1.1	3
47	Improving the sampling process in the interval Branch-and-Prune algorithm for the discretizable molecular distance geometry problem. Applied Mathematics and Computation, 2021, 389, 125586.	1.4	3
48	Optimal Discretization Orders for Distance Geometry: A Theoretical Standpoint. Lecture Notes in Computer Science, 2015, , 234-242.	1.0	3
49	The K-discretization and K-incident graphs for discretizable Distance Geometry. Optimization Letters, 2020, 14, 469-482.	0.9	2
50	Finding Optimal Discretization Orders for Molecular Distance Geometry by Answer Set Programming. Studies in Computational Intelligence, 2016, , 1-15.	0.7	1
51	Manipulating Two-Dimensional Animations by Dynamical Distance Geometry. Studies in Computational Intelligence, 2020, , 147-153.	0.7	1
52	A New Approach to the Discretization of Multidimensional Scaling. , 0, , .		1
53	On the Exact Solution of the Distance Geometry with Interval Distances in Dimension 1. Studies in Computational Intelligence, 2018, , 123-134.	0.7	1
54	An Analysis on the Degrees of Freedom of Binary Representations for Solutions to Discretizable Distance Geometry Problems. Studies in Computational Intelligence, 2022, , 251-255.	0.7	1

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55	A Distance Geometry Procedure Using theÂLevenberg-Marquardt Algorithm andÂwith Applications inÂBiology butÂNot only. Lecture Notes in Computer Science, 2022, , 142-152.	1.0	1
56	Preface: Special issue on distances in optimization and graphs dedicated to the memory of Michel Deza. Optimization Letters, 2020, 14, 269-271.	0.9	0
57	Exploring Exhaustively the Conformations of a Tandem Domains Protein using a Discrete Distance Geometry Approach. Biophysical Journal, 2021, 120, 277a.	0.2	0
58	BetaMDGP: Protein Structure Determination Algorithm Based on the Beta-complex. Lecture Notes in Computer Science, 2014, , 130-155.	1.0	0
59	An optical processor for matrix-by-vector multiplication: an application to the distance geometry problem in 1D. Journal of Optics (United Kingdom), 0, , .	1.0	0
60	Preface: special issue on optimization in distance geometry. Journal of Global Optimization, 0, , 1.	1.1	0