Giorgio Gnecco

List of Publications by Year
in descending order

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127 papers	1,352 citations	361045 20 h-index	454577 30 g-index
131 all docs	131 docs citations	131 times ranked	1027 citing authors

#	Article	IF	Citations
1	Classifiers for the detection of flood-prone areas using remote sensed elevation data. Journal of Hydrology, 2012, 470-471, 302-315.	2.3	98
2	Optimal design of low-frequency band gaps in anti-tetrachiral lattice meta-materials. Composites Part B: Engineering, 2017, 115, 341-359.	5.9	65
3	Machine-Learning Techniques for the Optimal Design of Acoustic Metamaterials. Journal of Optimization Theory and Applications, 2020, 187, 630-653.	0.8	62
4	Optimal design of auxetic hexachiral metamaterials with local resonators. Smart Materials and Structures, 2016, 25, 054009.	1.8	55
5	An efficient Self-Organizing Active Contour model for image segmentation. Neurocomputing, 2015, 149, 820-835.	3.5	47
6	Foundations of Support Constraint Machines. Neural Computation, 2015, 27, 388-480.	1.3	35
7	Regularization Techniques and Suboptimal Solutions to Optimization Problems in Learning from Data. Neural Computation, 2010, 22, 793-829.	1.3	34
8	The weight-decay technique in learning from data: an optimization point of view. Computational Management Science, 2009, 6, 53-79.	0.8	33
9	Dynamic Programming and Value-Function Approximation in Sequential Decision Problems: Error Analysis and Numerical Results. Journal of Optimization Theory and Applications, 2013, 156, 380-416.	0.8	32
10	Learning with Boundary Conditions. Neural Computation, 2013, 25, 1029-1106.	1.3	30
11	Optimal Design of the Band Structure for Beam Lattice Metamaterials. Frontiers in Materials, 2019, 6, .	1.2	30
12	Optimal distributed task scheduling in volunteer clouds. Computers and Operations Research, 2017, 81, 231-246.	2.4	27
13	On a Variational Norm Tailored to Variable-Basis Approximation Schemes. IEEE Transactions on Information Theory, 2011, 57, 549-558.	1.5	26
14	Suboptimal Solutions to Team Optimization Problems with Stochastic Information Structure. SIAM Journal on Optimization, 2012, 22, 212-243.	1.2	26
15	An approach to transportation network analysis via transferable utility games. Transportation Research Part B: Methodological, 2017, 105, 120-143.	2.8	25
16	Computational design of innovative mechanical metafilters via adaptive surrogate-based optimization. Computer Methods in Applied Mechanics and Engineering, 2021, 375, 113623.	3.4	25
17	Suboptimal Solutions to Dynamic Optimization Problems via Approximations of the Policy Functions. Journal of Optimization Theory and Applications, 2010, 146, 764-794.	0.8	24
18	Approximate dynamic programming for stochastic N-stage optimization with application to optimal consumption under uncertainty. Computational Optimization and Applications, 2014, 58, 31-85.	0.9	24

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19	Expressive non-verbal interaction in a string quartet: an analysis through head movements. Journal on Multimodal User Interfaces, 2015, 9, 55-68.	2.0	22
20	Some comparisons of complexity in dictionary-based and linear computational models. Neural Networks, 2011, 24, 171-182.	3.3	21
21	Accuracy of suboptimal solutions to kernel principal component analysis. Computational Optimization and Applications, 2009, 42, 265-287.	0.9	20
22	Neural Approximations for Optimal Control and Decision. Communications and Control Engineering, 2020, , .	1.0	19
23	A SOM-based Chanâ€“Vese model for unsupervised image segmentation. Soft Computing, 2017, 21, 2047-2067.	2.1	18
24	Simple Models in Complex Worlds: Occamâ€™s Razor and Statistical Learning Theory. Minds and Machines, 2022, 32, 13-42.	2.7	18
25	FLOOD HAZARD ASSESSMENT VIA THRESHOLD BINARY CLASSIFIERS: CASE STUDY OF THE TANARO RIVER BASIN. Irrigation and Drainage, 2013, 62, 1-10.	0.8	17
26	Supervised and semi-supervised classifiers for the detection of flood-prone areas. Soft Computing, 2017, 21, 3673-3685.	2.1	16
27	Multi-class parkinsonian disorders classification with quantitative MR markers and graph-based features using support vector machines. Parkinsonism and Related Disorders, 2018, 47, 64-70.	1.1	16
28	Complex frequency band structure of periodic thermo-diffusive materials by Floquetâ€“Bloch theory. Acta Mechanica, 2019, 230, 3339-3363.	1.1	16
29	A Model of Buffer Occupancy for ICNs. IEEE Communications Letters, 2012, 16, 862-865.	2.5	15
30	Can dictionary-based computational models outperform the best linear ones?. Neural Networks, 2011, 24, 881-887.	3.3	13
31	A Comparison between Fixed-Basis and Variable-Basis Schemes for Function Approximation and Functional Optimization. Journal of Applied Mathematics, 2012, 2012, 1-17.	0.4	13
32	Editorial A Successful Change From TNN to TNNLS and a Very Successful Year. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 1-7.	7.2	13
33	A theoretical framework for supervised learning from regions. Neurocomputing, 2014, 129, 25-32.	3.5	13
34	Robust localâ€“global SOMâ€based ACM. Electronics Letters, 2015, 51, 142-143.	0.5	13
35	Transboundary pollution control and environmental absorption efficiency management. Annals of Operations Research, 2020, 287, 653-681.	2.6	13
36	Causal tree with instrumental variable: an extension of the causal tree framework to irregular assignment mechanisms. International Journal of Data Science and Analytics, 2020, 9, 315-337.	2.4	13

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37	Learning With Mixed Hard/Soft Pointwise Constraints. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 2019-2032.	7.2	12
38	A Concurrent SOM-Based Chan-Vese Model for Image Segmentation. Advances in Intelligent Systems and Computing, 2014, , 199-208.	0.5	11
39	New insights into Witsenhausenâ€™s counterexample. Optimization Letters, 2012, 6, 1425-1446.	0.9	10
40	On the Relationship between Variational Level Set-Based and SOM-Based Active Contours. Computational Intelligence and Neuroscience, 2015, 2015, 1-19.	1.1	10
41	Multi-Scale Surface Roughness Optimization Through Genetic Algorithms. Frontiers in Mechanical Engineering, 2020, 6, .	0.8	10
42	Estimates of Variation with Respect to a Set andÂApplications to Optimization Problems. Journal of Optimization Theory and Applications, 2010, 145, 53-75.	0.8	9
43	Design of Acoustic Metamaterials Through Nonlinear Programming. Lecture Notes in Computer Science, 2016, , 170-181.	1.0	9
44	A theoretical analysis of buffer occupancy for Intermittently-Connected Networks. Performance Evaluation, 2017, 115, 108-131.	0.9	9
45	On the trade-off between number of examples and precision of supervision in machine learning problems. Optimization Letters, 2021, 15, 1711-1733.	0.9	9
46	Error bounds for suboptimal solutions to kernel principal component analysis. Optimization Letters, 2010, 4, 197-210.	0.9	8
47	Evaluation of the Average Packet Delivery Delay in Highly-Disrupted Networks: The DTN and IP-like Protocol Cases. IEEE Communications Letters, 2014, 18, 519-522.	2.5	8
48	A Survey of SOM-Based Active Contour Models for Image Segmentation. Advances in Intelligent Systems and Computing, 2014, , 293-302.	0.5	8
49	Sparse Solutions to the Average Consensus Problem via Various Regularizations of the Fastest Mixing Markov-Chain Problem. IEEE Transactions on Network Science and Engineering, 2015, 2, 97-111.	4.1	8
50	Estimating Heterogeneous Causal Effects in the Presence of Irregular Assignment Mechanisms. , 2018, , .		8
51	Public transport transfers assessment via transferable utility games and Shapley value approximation. Transportmetrica A: Transport Science, 2021, 17, 540-565.	1.3	8
52	Accuracy of approximations of solutions to Fredholm equations by kernel methods. Applied Mathematics and Computation, 2012, 218, 7481-7497.	1.4	7
53	Commitment-Based Equilibrium Environmental Strategies Under Time-Dependent Absorption Efficiency. Group Decision and Negotiation, 2018, 27, 235-249.	2.0	7
54	Some properties of transportation network cooperative games. Networks, 2019, 74, 161-173.	1.6	7

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55	On the Trade-Off Between Number of Examples and Precision of Supervision in Regression. Proceedings of the International Neural Networks Society, 2020, , 1-6.	0.6	7
56	Optimal trade-off between sample size, precision of supervision, and selection probabilities for the unbalanced fixed effects panel data model. Soft Computing, 2020, 24, 15937-15949.	2.1	7
57	A machine learning approach to economic complexity based on matrix completion. Scientific Reports, 2022, 12, .	1.6	7
58	Estimates of the Approximation Error Using Rademacher Complexity: Learning Vector-Valued Functions. Journal of Inequalities and Applications, 2008, 2008, 640758.	0.5	6
59	Expressive Non-verbal Interaction in String Quartet. , 2013, , .		6
60	Sparse solutions to the average consensus problem via l<inf>1</inf>-norm regularization of the fastest mixing Markov-chain problem. , 2014, , .		6
61	Identification of Roughness with Optimal Contact Response with respect to Real Contact Area and Normal Stiffness. Mathematical Problems in Engineering, 2019, 2019, 1-11.	0.6	6
62	Towards Automated Analysis of Joint Music Performance in the Orchestra. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 120-127.	0.2	6
63	Automatic Classification of Leading Interactions in a String Quartet. ACM Transactions on Interactive Intelligent Systems, 2016, 6, 1-27.	2.6	6
64	Measuring playersâ€™ importance in basketball using the generalized Shapley value. Annals of Operations Research, 2023, 325, 441-465.	2.6	6
65	LQG Online Learning. Neural Computation, 2017, 29, 2203-2291.	1.3	5
66	A green policy to schedule tasks in a distributed cloud. Optimization Letters, 2018, 12, 1535-1551.	0.9	5
67	Metamaterial filter design via surrogate optimization. Journal of Physics: Conference Series, 2018, 1092, 012043.	0.3	5
68	Automated Analysis of the Origin of Movement: An Approach Based on Cooperative Games on Graphs. IEEE Transactions on Human-Machine Systems, 2020, 50, 550-560.	2.5	5
69	CAC with Nonlinearly-Constrained Feasibility Regions. IEEE Communications Letters, 2011, 15, 467-469.	2.5	4
70	Team optimization problems with Lipschitz continuous strategies. Optimization Letters, 2011, 5, 333-346.	0.9	4
71	Optimality Conditions for Coordinate-Convex Policies in CAC With Nonlinear Feasibility Boundaries. IEEE/ACM Transactions on Networking, 2013, 21, 1363-1377.	2.6	4
72	Approximation and Estimation Bounds for Subsets of Reproducing Kernel KreĢn Spaces. Neural Processing Letters, 2014, 39, 137-153.	2.0	4

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73	A hierarchical consensus method for the approximation of the consensus state, based on clustering and spectral graph theory. Engineering Applications of Artificial Intelligence, 2016, 56, 157-174.	4.3	4
74	On the Curse of Dimensionality in the Ritz Method. Journal of Optimization Theory and Applications, 2016, 168, 488-509.	0.8	4
75	Symmetry and antisymmetry properties of optimal solutions to regression problems. Optimization Letters, 2017, 11, 1427-1442.	0.9	4
76	Symmetric and antisymmetric properties of solutions to kernel-based machine learning problems. Neurocomputing, 2018, 306, 141-159.	3.5	4
77	Intragenerational redistribution in a funded pension system. Journal of Pension Economics and Finance, 2019, 18, 271-303.	0.6	4
78	Optimal data collection design in machine learning: the case of the fixed effects generalized least squares panel data model. Machine Learning, 2021, 110, 1549-1584.	3.4	4
79	Braess' paradox: A cooperative gameâ€theoretic point of view. Networks, 2021, 78, 264-283.	1.6	4
80	Smooth Optimal Decision Strategies for Static Team Optimization Problems and Their Approximations. Lecture Notes in Computer Science, 2010, , 440-451.	1.0	4
81	Principal Component Analysis Applied to Gradient Fields in Band Gap Optimization Problems for Metamaterials. Journal of Physics: Conference Series, 2021, 2015, 012047.	0.3	4
82	Hierarchical clustering and matrix completion for the reconstruction of world inputâ€“output tables. AStA Advances in Statistical Analysis, 2023, 107, 575-620.	0.4	4
83	Can Machines Learn Creativity Needs? An Approach Based on Matrix Completion. Italian Economic Journal, 2023, 9, 1111-1151.	0.9	4
84	Value and Policy Function Approximations in Infinite-Horizon Optimization Problems. Journal of Dynamical Systems and Geometric Theories, 2008, 6, 123-147.	0.1	3
85	Minimizing Sequences for a Family of Functional Optimal Estimation Problems. Journal of Optimization Theory and Applications, 2010, 147, 243-262.	0.8	3
86	On the detection of the level of attention in an orchestra through head movements. International Journal of Arts and Technology, 2014, 7, 316.	0.1	3
87	A Comparison of Game-Theoretic Models for Parallel Trade. International Game Theory Review, 2018, 20, 1850003.	0.3	3
88	Neural approximations in discounted infinite-horizon stochastic optimal control problems. Engineering Applications of Artificial Intelligence, 2018, 74, 294-302.	4.3	3
89	Should Simplicity Be Always Preferred toÂComplexity in Supervised Machine Learning?. Lecture Notes in Computer Science, 2020, , 55-59.	1.0	3
90	A Computational Method to Automatically Detect the Perceived Origin of Full-Body Human Movement and its Propagation. , 2020, , .		3

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91	On spectral windows in supervised learning from data. Information Processing Letters, 2010, 110, 1031-1036.	0.4	2
92	Structural properties of optimal coordinate-convex policies for CAC with nonlinearly-constrained feasibility regions. , 2011, , .		2
93	Exploiting the Shapley Value in the Estimation of the Position of a Point of Interest for a Group of Individuals. Procedia, Social and Behavioral Sciences, 2014, 108, 249-259.	0.5	2
94	Binary and Multi-class Parkinsonian Disorders Classification Using Support Vector Machines. Lecture Notes in Computer Science, 2015, , 379-386.	1.0	2
95	Graph-restricted game approach for investigating human movement qualities. , 2017, , .		2
96	An Algorithm for Curve Identification in the Presence of Curve Intersections. Mathematical Problems in Engineering, 2018, 2018, 1-7.	0.6	2
97	Convex combination of data matrices: PCA perturbation bounds for multi-objective optimal design of mechanical metafilters. Mathematical Foundations of Computing, 2021, 4, 253.	0.7	2
98	Welfare and research and development incentive effects of uniform and differential pricing schemes. Computational Management Science, 2022, 19, 229-268.	0.8	2
99	Suboptimal Policies for Stochastic $$N$$ N -Stage Optimization: Accuracy Analysis and a Case Study from Optimal Consumption. Profiles in Operations Research, 2014, , 27-50.	0.3	2
100	Regularization and Suboptimal Solutions in Learning from Data. Studies in Computational Intelligence, 2009, , 113-154.	0.7	2
101	Learning with Hard Constraints. Lecture Notes in Computer Science, 2013, , 146-153.	1.0	2
102	Machine Learning Application to Family Business Status Classification. Lecture Notes in Computer Science, 2020, , 25-36.	1.0	2
103	On Braessâ€™ Paradox and Average Quality of Service in Transportation Network Cooperative Games. AIRO Springer Series, 2021, , 27-37.	0.4	2
104	Deeper Insights intoÂNeural Nets withÂRandom Weights. Lecture Notes in Computer Science, 2022, , 129-140.	1.0	2
105	An application to two-hop forwarding of a model of buffer occupancy in ICNs. , 2012, , .		1
106	Online learning as an LQG optimal control problem with random matrices. , 2015, , .		1
107	Narrowing the Search for Optimal Call-Admission Policies Via a Nonlinear Stochastic Knapsack Model. Journal of Optimization Theory and Applications, 2015, 164, 819-841.	0.8	1
108	Learning as Constraint Reactions. Springer Series in Bio-/neuroinformatics, 2015, , 245-270.	0.1	1

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109	The Basic Infinite-Dimensional or Functional Optimization Problem. Communications and Control Engineering, 2020, , 1-38.	1.0	1
110	Optimal Control Problems over an Infinite Horizon. Communications and Control Engineering, 2020, , 471-511.	1.0	1
111	Price-volume agreements: a one principal/two agents model. European Journal of Operational Research, 2021, , .	3.5	1
112	Uniform and Lipschitz continuity of objective functions in metamaterial band gap optimization problems. AIP Conference Proceedings, 2020, , .	0.3	1
113	Functional optimization by variable-basis approximation schemes. 4or, 2011, 9, 103-106.	1.0	0
114	Approximation structures with moderate complexity in functional optimization and dynamic programming. , 2012, , .		0
115	Multi-field asymptotic homogenization approach for Bloch wave propagation in periodic thermodiffusive elastic materials. Journal of Physics: Conference Series, 2018, 1092, 012006.	0.3	0
116	Strong Convexity and Smoothness of Solutions to Geometric Optics Problems via Dynamic Programming. , 2018, 2, 549-554.		0
117	Parameter estimation in a 3â€parameter pâ€star random graph model. Networks, 2021, 77, 403-420.	1.6	0
118	Some Comparisons of Model Complexity in Linear and Neural-Network Approximation. Lecture Notes in Computer Science, 2010, , 358-367.	1.0	0
119	Numerical Methods for Integration and Search for Minima. Communications and Control Engineering, 2020, , 207-253.	1.0	0
120	Design of Mathematical Models by Learning From Data and FSP Functions. Communications and Control Engineering, 2020, , 151-206.	1.0	0
121	Stochastic Optimal Control with Perfect State Information over a Finite Horizon. Communications and Control Engineering, 2020, , 299-382.	1.0	0
122	From Functional Optimization to Nonlinear Programming by the Extended Ritz Method. Communications and Control Engineering, 2020, , 39-88.	1.0	0
123	Deterministic Optimal Control overÂaÂFinite Horizon. Communications and Control Engineering, 2020, , 255-298.	1.0	0
124	Some Families of FSP Functions andÂTheir Properties. Communications and Control Engineering, 2020, , 89-150.	1.0	0
125	Team Optimal Control Problems. Communications and Control Engineering, 2020, , 427-469.	1.0	0
126	Stochastic Optimal Control withÂImperfect State Information over a Finite Horizon. Communications and Control Engineering, 2020, , 383-426.	1.0	0

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127	Frequency band structure of hierarchical viscoelastic metamaterials. AIP Conference Proceedings, 2020, , .	0.3	0