

Giuseppe Carlo Calafiore

List of Publications by Year in descending order

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147
papers

5,375
citations

172457

29
h-index

95266

68
g-index

155
all docs

155
docs citations

155
times ranked

2979
citing authors

#	ARTICLE	IF	CITATIONS
1	The Scenario Approach to Robust Control Design. IEEE Transactions on Automatic Control, 2006, 51, 742-753.	5.7	801
2	Uncertain convex programs: randomized solutions and confidence levels. Mathematical Programming, 2005, 102, 25-46.	2.4	515
3	On Distributionally Robust Chance-Constrained Linear Programs. Journal of Optimization Theory and Applications, 2006, 130, 1-22.	1.5	353
4	Randomized Algorithms for Analysis and Control of Uncertain Systems. Communications and Control Engineering, 2013, , .	1.6	218
5	Robust filtering for discrete-time systems with bounded noise and parametric uncertainty. IEEE Transactions on Automatic Control, 2001, 46, 1084-1089.	5.7	217
6	Random Convex Programs. SIAM Journal on Optimization, 2010, 20, 3427-3464.	2.0	208
7	Robust Model Predictive Control via Scenario Optimization. IEEE Transactions on Automatic Control, 2013, 58, 219-224.	5.7	195
8	Research on probabilistic methods for control system design. Automatica, 2011, 47, 1279-1293.	5.0	142
9	Randomized algorithms for probabilistic robustness with real and complex structured uncertainty. IEEE Transactions on Automatic Control, 2000, 45, 2218-2235.	5.7	138
10	A time-varying SIRD model for the COVID-19 contagion in Italy. Annual Reviews in Control, 2020, 50, 361-372.	7.9	135
11	Multi-period portfolio optimization with linear control policies. Automatica, 2008, 44, 2463-2473.	5.0	131
12	Ambiguous Risk Measures and Optimal Robust Portfolios. SIAM Journal on Optimization, 2007, 18, 853-877.	2.0	130
13	Stochastic algorithms for exact and approximate feasibility of robust LMIs. IEEE Transactions on Automatic Control, 2001, 46, 1755-1759.	5.7	114
14	Reliable Localization Using Set-Valued Nonlinear Filters. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2005, 35, 189-197.	2.9	114
15	Interval predictor models: Identification and reliability. Automatica, 2009, 45, 382-392.	5.0	103
16	Distributed linear estimation over sensor networks. International Journal of Control, 2009, 82, 868-882.	1.9	85
17	Stochastic model predictive control of LPV systems via scenario optimization. Automatica, 2013, 49, 1861-1866.	5.0	85
18	Ellipsoidal bounds for uncertain linear equations and dynamical systems. Automatica, 2004, 40, 773-787.	5.0	78

#	ARTICLE	IF	CITATIONS
19	Lagrangian duality in 3D SLAM: Verification techniques and optimal solutions. , 2015, , .		60
20	Planar Pose Graph Optimization: Duality, Optimal Solutions, and Verification. IEEE Transactions on Robotics, 2016, 32, 545-565.	10.3	57
21	An Affine Control Method for Optimal Dynamic Asset Allocation with Transaction Costs. SIAM Journal on Control and Optimization, 2009, 48, 2254-2274.	2.1	53
22	Optimization under uncertainty with applications to design of truss structures. Structural and Multidisciplinary Optimization, 2008, 35, 189-200.	3.5	52
23	A probabilistic analytic center cutting plane method for feasibility of uncertain LMIs. Automatica, 2007, 43, 2022-2033.	5.0	51
24	Approximation of n-dimensional data using spherical and ellipsoidal primitives. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2002, 32, 269-278.	2.9	46
25	A probabilistic framework for problems with real structured uncertainty in systems and control. Automatica, 2002, 38, 1265-1276.	5.0	42
26	Convex Relaxations for Pose Graph Optimization With Outliers. IEEE Robotics and Automation Letters, 2018, 3, 1160-1167.	5.1	40
27	A survey of randomized algorithms for control synthesis and performance verification. Journal of Complexity, 2007, 23, 301-316.	1.3	37
28	A Distributed Technique for Localization of Agent Formations From Relative Range Measurements. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2012, 42, 1065-1076.	2.9	37
29	Randomized Model Predictive Control for stochastic linear systems. , 2012, , .		34
30	RACT: Randomized Algorithms Control Toolbox for MATLAB. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 390-395.	0.4	30
31	On the Expected Probability of Constraint Violation in Sampled Convex Programs. Journal of Optimization Theory and Applications, 2009, 143, 405-412.	1.5	29
32	Notes on the Scenario Design Approach. IEEE Transactions on Automatic Control, 2009, 54, 382-385.	5.7	27
33	Robust maximum likelihood estimation in the linear model. Automatica, 2001, 37, 573-580.	5.0	26
34	Direct data-driven portfolio optimization with guaranteed shortfall probability. Automatica, 2013, 49, 370-380.	5.0	26
35	A model predictive control approach to optimally devise a two-dose vaccination rollout: A case study on COVID-19 in Italy. International Journal of Robust and Nonlinear Control, 2023, 33, 4808-4823.	3.7	25
36	Multi-agent localization from noisy relative pose measurements. , 2011, , .		23

#	ARTICLE	IF	CITATIONS
37	Log-Sum-Exp Neural Networks and Posynomial Models for Convex and Log-Log-Convex Data. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 827-838.	11.3	23
38	A Universal Approximation Result for Difference of Log-Sum-Exp Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5603-5612.	11.3	22
39	Radial and Uniform Distributions in Vector and Matrix Spaces for Probabilistic Robustness. , 1999, , 17-31.		22
40	Subgradient Techniques for Passivity Enforcement of Linear Device and Interconnect Macromodels. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2990-3003.	4.6	20
41	Distributed centroid estimation from noisy relative measurements. Systems and Control Letters, 2012, 61, 773-779.	2.3	20
42	Repetitive Scenario Design. IEEE Transactions on Automatic Control, 2017, 62, 1125-1137.	5.7	20
43	A distributed gradient method for localization of formations using relative range measurements. , 2010, , .		19
44	Noisy Range Network Localization based on Distributed Multidimensional Scaling. IEEE Sensors Journal, 2014, , 1-1.	4.7	19
45	Worst-case simulation of uncertain systems. Lecture Notes in Control and Information Sciences, 1999, , 134-146.	1.0	18
46	A distributed Gauss-Newton approach for range-based localization of multi agent formations. , 2010, , .		17
47	IDENTIFICATION OF RELIABLE PREDICTOR MODELS FOR UNKNOWN SYSTEMS: A DATA-CONSISTENCY APPROACH BASED ON LEARNING THEORY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 85-90.	0.4	16
48	Human Hand: Kinematics, Statics, and Dynamics. , 2011, , .		16
49	Outliers robustness in multivariate orthogonal regression. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2000, 30, 674-679.	2.9	15
50	Distributed randomized algorithms for probabilistic performance analysis. Systems and Control Letters, 2009, 58, 202-212.	2.3	15
51	Structural interpretation of transmission zeros for matrix second-order systems. Automatica, 1997, 33, 745-748.	5.0	14
52	Constrained optimal fitting of three-dimensional vector patterns. IEEE Transactions on Automation Science and Engineering, 1998, 14, 838-844.	2.3	14
53	Control design with hard/soft performance specifications: aQ-parameter randomization approach. International Journal of Control, 2004, 77, 461-471.	1.9	14
54	Reduced Vertex Set Result for Interval Semidefinite Optimization Problems. Journal of Optimization Theory and Applications, 2008, 139, 17-33.	1.5	12

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55	Parameter estimation with expected and residual-at-risk criteria. <i>Systems and Control Letters</i> , 2009, 58, 39-46.	2.3	12
56	Distributed optimization techniques for range localization in networked systems. , 2010, , .		12
57	Data-Driven Extraction of Uniformly Stable and Passive Parameterized Macromodels. <i>IEEE Access</i> , 2022, 10, 15786-15804.	4.2	12
58	Position estimation from relative distance measurements in multi-agents formations. , 2010, , .		11
59	Data-driven asset allocation with guaranteed short-fall probability. , 2012, , .		11
60	A flow optimization approach for the rebalancing of mobility on demand systems. , 2017, , .		11
61	Near optimal solutions to least-squares problems with stochastic uncertainty. <i>Systems and Control Letters</i> , 2005, 54, 1219-1232.	2.3	10
62	Output Feedback Q-Learning for Linear-Quadratic Discrete-Time Finite-Horizon Control Problems. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2021, 32, 3274-3281.	11.3	10
63	Set simulations for quadratic systems. <i>IEEE Transactions on Automatic Control</i> , 2003, 48, 800-805.	5.7	9
64	Observer design with guaranteed RMS gain for discrete-time LPV systems with Markovian jumps. <i>International Journal of Robust and Nonlinear Control</i> , 2009, 19, 676-691.	3.7	9
65	Towards a hand exoskeleton for a smart EVA glove. , 2010, , .		9
66	Sparse identification of posynomial models. <i>Automatica</i> , 2015, 59, 27-34.	5.0	9
67	Leading impulse response identification via the Elastic Net criterion. <i>Automatica</i> , 2017, 80, 75-87.	5.0	9
68	A Network Model for an Urban Bike Sharing System * **This work is partially supported by Compagnia di San Paolo, Italy. The kind cooperation of BicincittÀ â€œ ToBike in providing us with logged service data is gratefully acknowledged. <i>IFAC-PapersOnLine</i> , 2017, 50, 15633-15638.	0.9	9
69	Triggering Long-Short Trades on Indexes. <i>International Journal of Trade Economics and Finance</i> , 2010, 1, 289-296.	0.1	9
70	Random convex programs: Dealing with the non-existing solution nuisance. , 2010, , .		8
71	Robust model predictive control via random convex programming. , 2011, , .		8
72	A robust MPC approach for the rebalancing of mobility on demand systems. <i>Control Engineering Practice</i> , 2019, 90, 169-181.	5.5	8

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73	On Two-Stage Portfolio Allocation Problems with Affine Recourse. , 0, , .		7
74	Probabilistic Robust Control. Proceedings of the American Control Conference, 2007, , .	0.0	7
75	On mixed-integer random convex programs. , 2012, , .		7
76	A Control-Oriented Model for Mobility on Demand Systems. , 2018, , .		7
77	An Iterative Data-Driven Linear Quadratic Method to Solve Nonlinear Discrete-Time Tracking Problems. IEEE Transactions on Automatic Control, 2021, 66, 5514-5521.	5.7	7
78	Recurrent averaging inequalities in multi-agent control and social dynamics modeling. Annual Reviews in Control, 2020, 49, 95-112.	7.9	7
79	The probabilistic real stability radius. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 3587-3592.	0.4	6
80	Linear Programming with Probability Constraints - Part 2. Proceedings of the American Control Conference, 2007, , .	0.0	6
81	Linear Programming with Probability Constraints - Part 1. Proceedings of the American Control Conference, 2007, , .	0.0	6
82	Efficient Localization Methods for Passivity Enforcement of Linear Dynamical Models. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 1328-1341.	2.7	6
83	Age structure in SIRD models for the COVID-19 pandemic – A case study on Italy data and effects on mortality. PLoS ONE, 2022, 17, e0264324.	2.5	6
84	Random walks for probabilistic robustness. , 2004, , .		5
85	A note on the expected probability of constraint violation in sampled convex programs. , 2009, , .		5
86	Learning noisy functions via interval models. Systems and Control Letters, 2010, 59, 404-413.	2.3	5
87	A Variation on a Random Coordinate Minimization Method for Constrained Polynomial Optimization. , 2018, 2, 531-536.		5
88	Sampled Convex Programs and Probabilistically Robust Design. , 2006, , 161-188.		4
89	Observer Design with Guaranteed RMS Gain for Linear Parameter Varying Jump Systems. Proceedings of the American Control Conference, 2007, , .	0.0	4
90	Multistage investments with recourse: A single-asset case with transaction costs. , 2008, , .		4

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91	Statistical Learning Theory. Communications and Control Engineering, 2013, , 123-134.	1.6	4
92	Topic analysis in news via sparse learning: a case study on the 2016 US presidential elections. IFAC-PapersOnLine, 2017, 50, 13593-13598.	0.9	4
93	Bounded Input Dissipativity of Linearized Circuit Models. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 2064-2077.	5.4	4
94	Sparse ℓ_1 - and ℓ_2 -Center Classifiers. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 996-1009.	11.3	4
95	Dynamic planning of a two-dose vaccination campaign with uncertain supplies. European Journal of Operational Research, 2023, 304, 1269-1278.	5.7	4
96	Control of Dynamic Financial Networks. , 2022, 6, 3206-3211.		4
97	Near Optimal Solutions to Least-Squares Problems with Stochastic Uncertainty. , 2006, , 203-221.		3
98	New results on the scenario design approach. , 2007, , .		3
99	Random convex programs part 2. , 2010, , .		3
100	Multi-period asset allocation with lower partial moments criteria and affine policies. , 2014, , .		3
101	Optimal dynamic asset allocation with lower partial moments criteria and affine policies. International Journal of Financial Engineering and Risk Management, 2015, 2, 87.	0.2	3
102	Fast Simulation of Analog Circuit Blocks Under Nonstationary Operating Conditions. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1355-1368.	2.5	3
103	Identification of ARX Models with Time-Varying Bounded Parameters: A Semidefinite Programming Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 283-288.	0.4	2
104	Random convex programs part 1. , 2010, , .		2
105	Sparse Identification of Polynomial and Posynomial Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 3238-3243.	0.4	2
106	BOUNDED UNCERTAINTY MODELS IN FINANCE: PARAMETER ESTIMATION AND FORECASTING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 13-18.	0.4	1
107	On 3-D Point Set Matching With MAE and SAE Cost Criteria. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2008, 38, 443-450.	2.9	1
108	Experiments on stock trading via feedback control. , 2010, , .		1

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109	Robust localization methods for passivity enforcement of linear macromodels. , 2013, , .		1
110	Analysis and optimization of a wire actuated, single effect n-R robotic structure. Robotica, 2014, 32, 357-373.	1.9	1
111	Optimal passivity enforcement of state-space models via localization methods. , 2014, , .		1
112	Parallel block coordinate minimization with application to group regularized regression. Optimization and Engineering, 2016, 17, 941-964.	2.4	1
113	Robust dynamic traffic assignment for single destination networks under demand and capacity uncertainty. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2020, 24, 331-351.	4.2	1
114	Control analysis and design via randomised coordinate polynomial minimisation. International Journal of Control, 2022, 95, 158-172.	1.9	1
115	Randomized Algorithms in Systems and Control. Communications and Control Engineering, 2013, , 135-146.	1.6	1
116	A Classifiers Voting Model for Exit Prediction of Privately Held Companies. , 2020, , .		1
117	Multiclass Sparse Centroids With Application to Fast Time Series Classification. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 5206-5211.	11.3	1
118	COVID-19 Case Data for Italy Stratified by Age Class. Open Health Data, 2022, 9, .	3.7	1
119	SET-MEMBERSHIP NONLINEAR FILTERING WITH SECOND-ORDER INFORMATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 1227-1232.	0.4	0
120	Intelligent control systems: an introduction with examples. Automatica, 2005, 41, 921-922.	5.0	0
121	Average and Worst-Case Techniques in Convex Optimization with Stochastic Uncertainty. , 0, , .		0
122	A linear reaction technique for dynamic asset allocation in the presence of transaction costs. , 2008, , .		0
123	Parameter estimation with expected and residual-at-risk criteria. , 2008, , .		0
124	Randomized algorithms for robustness analysis: a distributed approach. , 2009, , .		0
125	Network localization from range measurements: Algorithms and numerical experiments. , 2010, , .		0
126	Uncertain Linear Systems. Communications and Control Engineering, 2013, , 13-39.	1.6	0

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127	Linear Robust Control Design. Communications and Control Engineering, 2013, , 41-57.	1.6	0
128	Limits of the Robustness Paradigm. Communications and Control Engineering, 2013, , 59-69.	1.6	0
129	Probabilistic Methods for Uncertain Systems. Communications and Control Engineering, 2013, , 71-91.	1.6	0
130	Repetitive Scenario Design. , 2016, , .		0
131	MatTrader: An automated trading and financial data analysis framework for Matlab and Java. , 2016, , .		0
132	Lagrangian Duality in Complex Pose Graph Optimization. Springer Optimization and Its Applications, 2016, , 139-184.	0.9	0
133	The Dating Problem and Optimal Ordering of Sequential Opportunities. IFAC-PapersOnLine, 2017, 50, 934-939.	0.9	0
134	Control of Brokerage Margins * *This work was supported in part by Directa Sim, a leading Italian online brokerage company. The access to financial data provided by Directa Sim is also gratefully acknowledged.. IFAC-PapersOnLine, 2017, 50, 12279-12284.	0.9	0
135	Control of MIMO nonlinear systems via approximate model inversion. , 2017, , .		0
136	Random Coordinate Minimization Method with Eventual Transverse Directions for Constrained Polynomial Optimization. , 2019, , .		0
137	Distributed Maximum Likelihood Estimation over Unreliable Sensor Networks. Understanding Complex Systems, 2009, , 109-126.	0.6	0
138	Matrix Randomization Methods. Communications and Control Engineering, 2013, , 267-282.	1.6	0
139	Random Number and Variate Generation. Communications and Control Engineering, 2013, , 193-215.	1.6	0
140	Scenario Approach to Probabilistic Design. Communications and Control Engineering, 2013, , 165-179.	1.6	0
141	Sequential Methods for Probabilistic Design. Communications and Control Engineering, 2013, , 147-163.	1.6	0
142	Statistical Theory of Random Matrices. Communications and Control Engineering, 2013, , 243-266.	1.6	0
143	Learning-Based Probabilistic Design. Communications and Control Engineering, 2013, , 181-191.	1.6	0
144	Applications of Randomized Algorithms. Communications and Control Engineering, 2013, , 283-327.	1.6	0

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145	Vector Randomization Methods. Communications and Control Engineering, 2013, , 231-242.	1.6	0
146	Probability Inequalities. Communications and Control Engineering, 2013, , 109-121.	1.6	0
147	Nonlinear system identification in Sobolev spaces. International Journal of Control, 0, , 1-16.	1.9	0