Fabrizio Dabbene

List of Publications by Year
in descending order

120	2,422	279487	243296
papers	citations	23 h-index	44 g-index

129	129	129	1446
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Traceability issues in food supply chain management: A review. Biosystems Engineering, 2014, 120, 65-80.	1.9	270
2	Randomized Algorithms for Analysis and Control of Uncertain Systems. Communications and Control Engineering, 2013, , .	1.0	218
3	Research on probabilistic methods for control system design. Automatica, 2011, 47, 1279-1293.	3.0	142
4	Randomized algorithms for probabilistic robustness with real and complex structured uncertainty. IEEE Transactions on Automatic Control, 2000, 45, 2218-2235.	3.6	138
5	Constraint-Tightening and Stability in Stochastic Model Predictive Control. IEEE Transactions on Automatic Control, 2017, 62, 3165-3177.	3.6	138
6	Probabilistic design of LPV control systems. Automatica, 2003, 39, 1323-1337.	3.0	91
7	Food traceability systems: Performance evaluation and optimization. Computers and Electronics in Agriculture, 2011, 75, 139-146.	3.7	89
8	Optimization under uncertainty with applications to design of truss structures. Structural and Multidisciplinary Optimization, 2008, 35, 189-200.	1.7	52
9	A probabilistic analytic center cutting plane method for feasibility of uncertain LMIs. Automatica, 2007, 43, 2022-2033.	3.0	51
10	Stochastic MPC with offline uncertainty sampling. Automatica, 2017, 81, 176-183.	3.0	47
11	Sliding-Mode Control Strategies for Rendezvous and Docking Maneuvers. Journal of Guidance, Control, and Dynamics, 2017, 40, 1481-1487.	1.6	43
12	A probabilistic framework for problems with real structured uncertainty in systems and control. Automatica, 2002, 38, 1265-1276.	3.0	42
13	Sequential Randomized Algorithms for Convex Optimization in the Presence of Uncertainty. IEEE Transactions on Automatic Control, 2016, 61, 2565-2571.	3.6	38
14	A survey of randomized algorithms for control synthesis and performance verification. Journal of Complexity, 2007, 23, 301-316.	0.7	37
15	A Randomized Cutting Plane Method with Probabilistic Geometric Convergence. SIAM Journal on Optimization, 2010, 20, 3185-3207.	1.2	33
16	Learning Influence Structure in Sparse Social Networks. IEEE Transactions on Control of Network Systems, 2018, 5, 1976-1986.	2.4	32
17	Methods for traceability in food production processes involving bulk products. Biosystems Engineering, 2013, 116, 51-63.	1.9	31
18	RACT: Randomized Algorithms Control Toolbox for MATLAB. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 390-395.	0.4	30

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19	LPV approximation of distributed parameter systems in environmental modelling. Environmental Modelling and Software, 2005, 20, 1063-1070.	1.9	29
20	Recursive Nonparametric Identification of Nonlinear Systems With Adaptive Binary Sensors. IEEE Transactions on Automatic Control, 2017, 62, 3959-3971.	3.6	25
21	Sensor Selection and Precoding Strategies for Wireless Sensor Networks. IEEE Transactions on Signal Processing, 2015, 63, 4411-4421.	3.2	24
22	A novel distributed architecture for UAV indoor navigation. Transportation Research Procedia, 2018, 35, 13-22.	0.8	24
23	On the Generation of Random Stable Polynomials. European Journal of Control, 2011, 17, 145-159.	1.6	23
24	Radial and Uniform Distributions in Vector and Matrix Spaces for Probabilistic Robustness. , 1999, , 17-31.		22
25	Simple approximations of semialgebraic sets and their applications to control. Automatica, 2017, 78, 110-118.	3.0	21
26	Sample-Based SMPC for Tracking Control of Fixed-Wing UAV. , 2018, 2, 611-616.		20
27	An Offline-Sampling SMPC Framework With Application to Autonomous Space Maneuvers. IEEE Transactions on Control Systems Technology, 2020, 28, 388-402.	3.2	20
28	Cooperation of unmanned systems for agricultural applications: A theoretical framework. Biosystems Engineering, 2022, 223, 61-80.	1.9	20
29	Learning Hidden Influences in Large-Scale Dynamical Social Networks: A Data-Driven Sparsity-Based Approach, in Memory of Roberto Tempo. IEEE Control Systems, 2021, 41, 61-103.	1.0	19
30	Anytime reliable LDPC convolutional codes for networked control over wireless channel. , 2013, , .		18
31	Semantic interpretation and complexity reduction of 3D point clouds of vineyards. Biosystems Engineering, 2020, 197, 216-230.	1.9	18
32	A Kinship Function Approach to Robust and Probabilistic Optimization Under Polynomial Uncertainty. IEEE Transactions on Automatic Control, 2011, 56, 1509-1523.	3.6	17
33	Cooperative Agricultural Operations of Aerial and Ground Unmanned Vehicles. , 2020, , .		17
34	Recursive algorithms for inner ellipsoidal approximation of convex polytopes. Automatica, 2003, 39, 1773-1781.	3.0	16
35	Cooperation of unmanned systems for agricultural applications: A case study in a vineyard. Biosystems Engineering, 2022, 223, 81-102.	1.9	16
36	Distributed randomized PageRank computation based on web aggregation. , 2009, , .		15

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37	An improved constraint-tightening approach for Stochastic MPC. , 2015, , .		15
38	Control design with hard/soft performance specifications: aQ-parameter randomization approach. International Journal of Control, 2004, 77, 461-471.	1.2	14
39	Identification of switched autoregressive exogenous systems from large noisy datasets. International Journal of Robust and Nonlinear Control, 2020, 30, 5777-5801.	2.1	14
40	On the Design of Structured Stabilizers for LTI Systems. , 2020, 4, 289-294.		12
41	Randomized algorithms for analysis and control of uncertain systems: An overview. , 2001, , 347-362.		11
42	Set approximation via minimum-volume polynomial sublevel sets. , 2013, , .		11
43	Radio-Frequency Identification Usage in Food Traceability. , 2016, , 67-89.		11
44	Near optimal solutions to least-squares problems with stochastic uncertainty. Systems and Control Letters, 2005, 54, 1219-1232.	1.3	10
45	Hard Bounds on the Probability of Performance With Application to Circuit Analysis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 3178-3187.	3.5	10
46	A statistical learning theory approach for uncertain linear and bilinear matrix inequalities. Automatica, 2014, 50, 1617-1625.	3.0	10
47	Probabilistic Optimal Estimation With Uniformly Distributed Noise. IEEE Transactions on Automatic Control, 2014, 59, 2113-2127.	3.6	10
48	Probabilistically Robust AC Optimal Power Flow. IEEE Transactions on Control of Network Systems, 2019, 6, 1135-1147.	2.4	10
49	Observer design with guaranteed RMS gain for discreteâ€time LPV systems with Markovian jumps. International Journal of Robust and Nonlinear Control, 2009, 19, 676-691.	2.1	9
50	Sequential randomized algorithms for sampled convex optimization. , 2013, , .		9
51	A Method for Identification of Markovian Jump ARX Processes. IFAC-PapersOnLine, 2017, 50, 14088-14093.	0.5	9
52	Robust Linear Static Anti-Windup With Probabilistic Certificates. IEEE Transactions on Automatic Control, 2017, 62, 1575-1589.	3.6	8
53	Dynamics and structure of social networks from a systems and control viewpoint: A survey of Roberto Tempoâ€™s contributions. Online Social Networks and Media, 2018, 7, 45-59.	2.3	8
54	Ergodic Opinion Dynamics Over Networks: Learning Influences From Partial Observations. IEEE Transactions on Automatic Control, 2021, 66, 2709-2723.	3.6	8

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55	Dynamical Networks of Social Influence: Modern Trends and Perspectives. IFAC-PapersOnLine, 2020, 53, 17616-17627.	0.5	8
56	Angle-Aware Coverage Control for 3-D Map Reconstruction With Drone Networks. , 2022, 6, 1831-1836.		8
57	Probabilistic Robust Control. Proceedings of the American Control Conference, 2007, , .	0.0	7
58	Influence estimation in sparse social networks. , 2017, , .		7
59	The probabilistic real stability radius. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 3587-3592.	0.4	6
60	On Positivity of Polynomials: The Dilation Integral Method. IEEE Transactions on Automatic Control, 2009, 54, 965-978.	3.6	6
61	A convex optimization approach to worst-case optimal sensor selection. , 2013, , .		6
62	Scenario optimization with certificates and applications to anti-windup design. , 2014, , .		6
63	Scenario-based Stochastic MPC with guaranteed recursive feasibility. , 2015, , .		6
64	A general sampling-based SMPC approach to spacecraft proximity operations. , 2017, , .		6
65	Randomized opinion dynamics over networks: influence estimation from partial observations. , 2018, , .		6
66	Identification of Switched Autoregressive Systems from Large Noisy Data Sets. , 2019, , .		6
67	Computationally efficient stochastic MPC: a probabilistic scaling approach. , 2020, , .		6
68	Prediction Error Quantification Through Probabilistic Scaling. , 2022, 6, 1118-1123.		6
69	On the complexity of randomized approximations of nonconvex sets. , 2010, , .		5
70	Recursive identification of nonparametric nonlinear systems with binary-valued output observations. , 2015, , .		5
71	Safe approximations of chance constrained sets by probabilistic scaling. , 2019, , .		5
72	3D Distance Filter for the Autonomous Navigation of UAVs in Agricultural Scenarios. Remote Sensing, 2022, 14, 1374.	1.8	5

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73	A probabilistic approach to optimal estimation part I: Problem formulation and methodology. , 2012, , .		4
74	Statistical Learning Theory. Communications and Control Engineering, 2013, , 123-134.	1.0	4
75	On the sample complexity of uncertain linear and bilinear matrix inequalities. , 2013, , .		4
76	Guest Editorial: Special Issue on Relaxation Methods in Identification and Estimation Problems. IEEE Transactions on Automatic Control, 2014, 59, 2869-2870.	3.6	4
77	â€œFlyableâ€•Guidance and Control Algorithms for Orbital Rendezvous Maneuver. SICE Journal of Control Measurement and System Integration, 2018, 11, 14-24.	0.4	4
78	Chance-constrained sets approximation: A probabilistic scaling approach. Automatica, 2022, 137, 110108.	3.0	4
79	A probabilistic approach to optimal estimation - Part II: algorithms and applications. , 2012, , .		3
80	Learning Political DNA in the Italian Senate. , 2019, , .		3
81	A probabilistic validation approach for penalty function design in Stochastic Model Predictive Control. IFAC-PapersOnLine, 2020, 53, 11271-11276.	0.5	3
82	An LMI Approach for Structured H State Feedback Control. IFAC-PapersOnLine, 2020, 53, 4058-4063.	0.5	3
83	Towards Proactive Moderation of Malicious Content via Bot Detection in Fringe Social Networks. , 2022, 6, 2960-2965.		3
84	Randomized analysis and synthesis of robust linear static anti-windup. , 2013, , .		2
85	Open problems in traceability: from raw materials to finished food products. Journal of Agricultural Engineering, 2013, 44, .	0.7	2
86	Uniform sample generation in semialgebraic sets. , 2014, , .		2
87	Randomized Approximations of the Image Set of Nonlinear Mappings with Applications to Filteringâˆ—â€”This research was partly funded by CNR-CNRS bilateral project No. 134562. IFAC-PapersOnLine, 2015, 48, 37-42.	0.5	2
88	R-RoMulOC: A unified tool for randomized and robust multiobjective control. IFAC-PapersOnLine, 2015, 48, 144-149.	0.5	2
89	Improving agricultural drone localization using georeferenced low-complexity maps. , 2021, , .		2
90	Fast Stochastic MPC Implementation via Policy Learning. , 2022, 6, 3020-3025.		2

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91	Randomized Methods for Control of Uncertain Systems. , 2014, , 1-8.		1
92	Rendez-vous and docking position tracking via sliding mode control. , 2015, , .		1
93	Updates on CSS Publications [Publication Activities]. IEEE Control Systems, 2016, 36, 17-20.	1.0	1
94	A distributed algorithm with consistency for PageRank-like linear algebraic systems * *Research partially supported by grant OptHySYS funded by the University of Trento, and by grant PowerLyap funded by CaRiTRo and National Science Foundation (NSF) Grants CNS-1329422 and ECCS-1201973.. IFAC-PapersOnLine, 2017, 50, 5172-5177.	0.5	1
95	Bayesian Identification of Distributed Vector AutoRegressive Processes. , 2019, , .		1
96	Waypoint Tracking via Tube-based Robust Model Predictive Control for Crop Monitoring with Fixed-Wing UAVs. , 2019, , .		1
97	A new metric for understanding hidden political influences from voting records. PLoS ONE, 2020, 15, e0238481.	1.1	1
98	Randomized Algorithms in Systems and Control. Communications and Control Engineering, 2013, , 135-146.	1.0	1
99	Uncertain Linear Systems. Communications and Control Engineering, 2013, , 13-39.	1.0	0
100	Linear Robust Control Design. Communications and Control Engineering, 2013, , 41-57.	1.0	0
101	Limits of the Robustness Paradigm. Communications and Control Engineering, 2013, , 59-69.	1.0	0
102	Probabilistic Methods for Uncertain Systems. Communications and Control Engineering, 2013, , 71-91.	1.0	0
103	Dealing with the curse of dimensionality in systems and control: The randomization paradigm. , 2014, , .		0
104	Optimal sensor selection strategies in the presence of wireless communication links. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10325-10330.	0.4	0
105	An Update on Society Publications [Publication Activities]. IEEE Control Systems, 2017, 37, 22-24.	1.0	0
106	A Tribute to Roberto Tempo [In Memoriam]. IEEE Control Systems, 2018, 38, 146-150.	1.0	0
107	A Physics-Based Attack Detection Technique in Cyber-Physical Systems: A Model Predictive Control Co-Design Approach. , 2019, , .		0
108	Randomized Methods for Control of Uncertain Systems. , 2021, , 1817-1822.		0

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109	A probabilistic point of view on peak effects in linear difference equations. European Journal of Control, 2022, 63, 107-115.	1.6	0
110	Matrix Randomization Methods. Communications and Control Engineering, 2013, , 267-282.	1.0	0
111	Random Number and Variate Generation. Communications and Control Engineering, 2013, , 193-215.	1.0	0
112	Scenario Approach to Probabilistic Design. Communications and Control Engineering, 2013, , 165-179.	1.0	0
113	Sequential Methods for Probabilistic Design. Communications and Control Engineering, 2013, , 147-163.	1.0	0
114	Statistical Theory of Random Matrices. Communications and Control Engineering, 2013, , 243-266.	1.0	0
115	Learning-Based Probabilistic Design. Communications and Control Engineering, 2013, , 181-191.	1.0	0
116	Applications of Randomized Algorithms. Communications and Control Engineering, 2013, , 283-327.	1.0	0
117	Vector Randomization Methods. Communications and Control Engineering, 2013, , 231-242.	1.0	0
118	Probability Inequalities. Communications and Control Engineering, 2013, , 109-121.	1.0	0
119	Randomized Methods for Control of Uncertain Systems. , 2020, , 1-6.		0
120	Solutions of Stable Difference Equations Probably Experience Peak. IFAC-PapersOnLine, 2020, 53, 4762-4767.	0.5	0