

Giorgio Battistelli

List of Publications by Year in descending order

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113
papers

3,199
citations

218677

26
h-index

168389

53
g-index

113
all docs

113
docs citations

113
times ranked

1572
citing authors

#	ARTICLE	IF	CITATIONS
1	Kullback-Leibler average, consensus on probability densities, and distributed state estimation with guaranteed stability. <i>Automatica</i> , 2014, 50, 707-718.	5.0	390
2	Consensus CPHD Filter for Distributed Multitarget Tracking. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013, 7, 508-520.	10.8	249
3	Moving-horizon state estimation for nonlinear discrete-time systems: New stability results and approximation schemes. <i>Automatica</i> , 2008, 44, 1753-1765.	5.0	232
4	Stability of consensus extended Kalman filter for distributed state estimation. <i>Automatica</i> , 2016, 68, 169-178.	5.0	230
5	Design of state estimators for uncertain linear systems using quadratic boundedness. <i>Automatica</i> , 2006, 42, 497-502.	5.0	127
6	A distributed Kalman filter with event-triggered communication and guaranteed stability. <i>Automatica</i> , 2018, 93, 75-82.	5.0	127
7	Multi-model unfalsified adaptive switching supervisory control. <i>Automatica</i> , 2010, 46, 249-259.	5.0	109
8	Robust Fusion for Multisensor Multiobject Tracking. <i>IEEE Signal Processing Letters</i> , 2018, 25, 640-644.	3.6	95
9	Robust Distributed Fusion With Labeled Random Finite Sets. <i>IEEE Transactions on Signal Processing</i> , 2018, 66, 278-293.	5.3	89
10	5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. <i>IEEE Transactions on Wireless Communications</i> , 2020, 19, 3782-3795.	9.2	86
11	Data-driven communication for state estimation with sensor networks. <i>Automatica</i> , 2012, 48, 926-935.	5.0	70
12	Computationally Efficient Multi-Agent Multi-Object Tracking With Labeled Random Finite Sets. <i>IEEE Transactions on Signal Processing</i> , 2019, 67, 260-275.	5.3	67
13	Moving-Horizon State Estimation for Nonlinear Systems Using Neural Networks. <i>IEEE Transactions on Neural Networks</i> , 2011, 22, 768-780.	4.2	61
14	Active mode observability of switching linear systems. <i>Automatica</i> , 2007, 43, 1442-1449.	5.0	58
15	Multiobject Fusion With Minimum Information Loss. <i>IEEE Signal Processing Letters</i> , 2020, 27, 201-205.	3.6	53
16	Distributed Joint Attack Detection and Secure State Estimation. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2018, 4, 96-110.	2.8	49
17	Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. <i>IEEE Transactions on Signal Processing</i> , 2020, 68, 5204-5218.	5.3	47
18	Advances in moving horizon estimation for nonlinear systems. , 2010, , .		46

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19	Model-Free Adaptive Switching Control of Time-Varying Plants. IEEE Transactions on Automatic Control, 2013, 58, 1208-1220.	5.7	46
20	Stability of Unfalsified Adaptive Switching Control in Noisy Environments. IEEE Transactions on Automatic Control, 2010, 55, 2424-2429.	5.7	43
21	Distributed multi-sensor multi-view fusion based on generalized covariance intersection. Signal Processing, 2020, 166, 107246.	3.7	42
22	A maximum-likelihood Kalman filter for switching discrete-time linear systems. Automatica, 2010, 46, 1870-1876.	5.0	37
23	On stabilization of switching linear systems. Automatica, 2013, 49, 1162-1173.	5.0	35
24	Fusion of Labeled RFS Densities With Minimum Information Loss. IEEE Transactions on Signal Processing, 2020, 68, 5855-5868.	5.3	34
25	Distributed Moving-Horizon Estimation With Arrival-Cost Consensus. IEEE Transactions on Automatic Control, 2019, 64, 3316-3323.	5.7	33
26	Consensus-based algorithms for distributed filtering. , 2012, , .		32
27	An Information-Theoretic Approach to Distributed State Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12477-12482.	0.4	30
28	Cooperative sensor fusion in centralized sensor networks using Cauchy's Schwarz divergence. Signal Processing, 2020, 167, 107278.	3.7	29
29	Distributed Joint Sensor Registration and Multitarget Tracking via Sensor Network. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 1301-1317.	4.7	28
30	A Bayesian approach to joint attack detection and resilient state estimation. , 2016, , .		25
31	Centralized Cooperative Sensor Fusion for Dynamic Sensor Network With Limited Field-of-View via Labeled Multi-Bernoulli Filter. IEEE Transactions on Signal Processing, 2021, 69, 878-891.	5.3	25
32	Adaptive memory in multi-model switching control of uncertain plants. Automatica, 2014, 50, 874-882.	5.0	24
33	Distributed joint sensor registration and target tracking via sensor network. Information Fusion, 2019, 46, 218-230.	19.1	23
34	Consensus-based multiple-model Bayesian filtering for distributed tracking. IET Radar, Sonar and Navigation, 2015, 9, 401-410.	1.8	22
35	Mode-observability degree in discrete-time switching linear systems. Systems and Control Letters, 2014, 70, 69-76.	2.3	21
36	Distributed Finite-Element Kalman Filter for Field Estimation. IEEE Transactions on Automatic Control, 2017, 62, 3309-3322.	5.7	21

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37	Random-Finite-Set-Based Distributed Multirobot SLAM. IEEE Transactions on Robotics, 2020, 36, 1758-1777.	10.3	21
38	Moving horizon estimation for discrete-time linear systems with binary sensors: Algorithms and stability results. Automatica, 2017, 85, 374-385.	5.0	19
39	Multi-Sensor Multi-Object Tracking with Different Fields-of-View Using the LMB Filter. , 2018, , .		17
40	Frequency based design of modal controllers for adaptive optics systems. Optics Express, 2012, 20, 27108.	3.4	15
41	Direct Control Design via Controller Unfalsification. International Journal of Robust and Nonlinear Control, 2018, 28, 3694-3712.	3.7	15
42	Event-Triggered Distributed Multitarget Tracking. IEEE Transactions on Signal and Information Processing Over Networks, 2019, 5, 570-584.	2.8	15
43	Joint attack detection and secure state estimation of cyber-physical systems. International Journal of Robust and Nonlinear Control, 2020, 30, 4303-4330.	3.7	15
44	Fusion-Based Multidetected Multitarget Tracking With Random Finite Sets. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 2438-2458.	4.7	15
45	Distributed multi-view multi-target tracking based on CPHD filtering. Signal Processing, 2021, 188, 108210.	3.7	15
46	Detecting Topology Variations in Networks of Linear Dynamical Systems. IEEE Transactions on Control of Network Systems, 2018, 5, 1287-1299.	3.7	14
47	PHD-SLAM 2.0: Efficient SLAM in the Presence of Missdetections and Clutter. IEEE Transactions on Robotics, 2021, 37, 1834-1843.	10.3	14
48	Unfalsified adaptive switching supervisory control of time varying systems. , 2009, , .		12
49	Model-free Adaptive Switching Control of Uncertain Time-Varying Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1273-1278.	0.4	12
50	Detecting topology variations in dynamical networks. , 2015, , .		11
51	Input-constrained multi-model unfalsified switching control. Automatica, 2017, 83, 391-395.	5.0	11
52	Automatic Tuning of the Internal Position Control of an Adaptive Secondary Mirror. European Journal of Control, 2011, 17, 273-289.	2.6	10
53	Stability of Consensus Extended Kalman Filtering for Distributed State Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5520-5525.	0.4	10
54	Distributed Averaging of Exponential-Class Densities With Discrete-Time Event-Triggered Consensus. IEEE Transactions on Control of Network Systems, 2018, 5, 359-369.	3.7	10

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55	An Adaptive Consensus Filter for Distributed State Estimation With Unknown Noise Statistics. IEEE Signal Processing Letters, 2021, 28, 1595-1599.	3.6	10
56	Multi-Agent Fusion With Different Limited Fields-of-View. IEEE Transactions on Signal Processing, 2022, 70, 1560-1575.	5.3	10
57	Distinguishability of Discrete-Time Nonlinear Systems. IEEE Transactions on Automatic Control, 2014, 59, 1014-1020.	5.7	9
58	Adaptive disturbance attenuation via logic-based switching. Systems and Control Letters, 2014, 73, 48-57.	2.3	9
59	Networked target tracking With Doppler sensors. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 3294-3306.	4.7	9
60	On Adaptive Stabilization of Mode-Observable Switching Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 356-361.	0.4	8
61	Discerning controllers for switching linear systems: Existence and genericity. Automatica, 2014, 50, 2358-2365.	5.0	8
62	Worst-case analysis of joint attack detection and resilient state estimation. , 2017, , .		8
63	Optimal direct data-driven control with stability guarantees. European Journal of Control, 2021, 59, 175-187.	2.6	7
64	Data-driven strategies for selective data transmission in sensor networks. , 2012, , .		6
65	MAP moving horizon estimation for threshold measurements with application to field monitoring. International Journal of Adaptive Control and Signal Processing, 2020, 34, 796-811.	4.1	6
66	Packet loss detection in networked control systems. International Journal of Robust and Nonlinear Control, 2020, 30, 6073-6090.	3.7	6
67	Fusion of Labeled RFS Densities With Different Fields of View. IEEE Transactions on Aerospace and Electronic Systems, 2022, 58, 5908-5924.	4.7	6
68	State estimation with a remote sensor under limited communication rate. , 2008, , .		5
69	Moving horizon state estimation for discrete-time linear systems with binary sensors. , 2015, , .		5
70	Robust Switching Control: Stability Analysis and Application to Active Disturbance Attenuation. IEEE Transactions on Automatic Control, 2017, 62, 6369-6376.	5.7	5
71	Hierarchical switching for active disturbance attenuation with fine controller tuning. International Journal of Adaptive Control and Signal Processing, 2017, 31, 742-760.	4.1	5
72	Distributed Joint Mapping and Registration with Limited Fields-of-View. , 2019, , .		5

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73	Distributed multi-target tracking over an asynchronous multi-sensor network. , 2020, , .		5
74	Moving horizon estimation: Open problems, theoretical progress, and new application perspectives. International Journal of Adaptive Control and Signal Processing, 2020, 34, 703-705.	4.1	5
75	Multi-Model Adaptive Switching Control with Fine Controller Tuning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 374-379.	0.4	4
76	Dealing with plant variations in multi-model unfalsified switching control via adaptive memory selection. , 2011, , .		4
77	Unfalsified approach to data-driven control design. , 2014, , .		4
78	Event-triggered consensus on exponential families. , 2015, , .		4
79	Detecting topology variations in networks of linear systems with static coupling. , 2016, , .		4
80	Event-Triggered Consensus Bernoulli Filtering. , 2018, , .		4
81	Minimum-Distance Receding-Horizon State Estimation for Switching Discrete-Time Linear Systems. , 2007, , 347-358.		4
82	Set-point tracking in mode-observable switching linear systems. , 2011, , .		3
83	Mode-observability conditions for linear and nonlinear systems. , 2012, , .		3
84	Self-Tuning Mechanism for the Design of Adaptive Secondary Mirror Position Control. IEEE Transactions on Control Systems Technology, 2015, 23, 2087-2100.	5.2	3
85	MAP Moving Horizon state estimation with binary measurements. , 2016, , .		3
86	Computationally Efficient CPHD Fusion based on Generalized Covariance Intersection. , 2019, , .		3
87	State Estimation in a Sensor Network under Bandwidth Constraints. Understanding Complex Systems, 2009, , 207-221.	0.6	3
88	Distributed joint target detection, tracking and classification via Bernoulli filter. IET Radar, Sonar and Navigation, 2022, 16, 1000-1013.	1.8	3
89	Multiple-model adaptive switching control for uncertain multivariable systems. , 2011, , .		2
90	Trade-offs between control and mode-observability properties for switching linear systems. , 2012, , .		2

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91	A hierarchical approach to adaptive disturbance attenuation combining switching and tuning. , 2014, , .		2
92	Consensus-based joint target tracking and sensor localization. , 2017, , .		2
93	Distributed state estimation under denial of service. , 2019, , .		2
94	Comment on "Detecting Topology Variations in Networks of Linear Dynamical Systems". IEEE Transactions on Control of Network Systems, 2020, 7, 187-188.	3.7	2
95	Passive target detection and tracking from electromagnetic field measurements. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22321.	1.2	2
96	Classification for Dynamical Systems: Model-Based and Data-Driven Approaches. IEEE Transactions on Automatic Control, 2021, 66, 1741-1748.	5.7	2
97	Unknown source in spatially distributed systems: Identifiability analysis and estimation. Automatica, 2022, 136, 110025.	5.0	2
98	Consensus variational Bayesian moving horizon estimation for distributed sensor networks with unknown noise covariances. Signal Processing, 2022, 198, 108571.	3.7	2
99	Projection-based degree of distinguishability in switching linear systems. , 2013, , .		1
100	Switching-based adaptive disturbance attenuation with guaranteed robust stability. , 2015, , .		1
101	Energy-efficient distributed state estimation via event-triggered consensus on exponential families. , 2016, , .		1
102	Dynamic Source Localization via Finite-Element Underwater Acoustic Field Estimation. , 2021, , .		1
103	A variational Bayes moving horizon estimation adaptive filter with guaranteed stability. Automatica, 2022, 142, 110374.	5.0	1
104	An Event-Triggered Hybrid Consensus Filter for Distributed Sensor Network. IEEE Signal Processing Letters, 2022, 29, 1472-1476.	3.6	1
105	Event-Triggered Consensus LMB Filter for Distributed Multitarget Tracking. IEEE Transactions on Aerospace and Electronic Systems, 2023, 59, 712-719.	4.7	1
106	On stabilization and tracking for switching linear systems. , 2012, , .		0
107	On discerning controllers for switching linear systems. , 2013, , .		0
108	Switching Control for Adaptive Disturbance Attenuation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1483-1488.	0.4	0

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109	Switching control for parameter identifiability of uncertain systems. , 2015, , .		0
110	Design of a switching controller for adaptive disturbance attenuation with guaranteed stability. , 2015, , .		0
111	Network equilibrium stabilization via single-node insertion. , 2019, , .		0
112	Switching Control for Parameter Identifiability. IEEE Transactions on Automatic Control, 2018, 63, 849-856.	5.7	0
113	GCI fusion based multi-detection multitarget tracking. , 2020, , .		0