Emanuele Garone

List of Publications by Year
in descending order

172 papers	2,832 citations	304368 22 h-index	315357 38 g-index
173 all docs	173 docs citations	173 times ranked	1839 citing authors

#	Article	IF	Citations
1	False data injection attacks against state estimation in wireless sensor networks. , 2010, , .		284
2	Reference and command governors for systems with constraints: A survey on theory and applications. Automatica, 2017, 75, 306-328.	3.0	278
3	LQG Control for MIMO Systems Over Multiple Erasure Channels With Perfect Acknowledgment. IEEE Transactions on Automatic Control, 2012, 57, 450-456.	3.6	122
4	Reference and command governors: A tutorial on their theory and automotive applications. , 2014, , .		105
5	Fault‐tolerant adaptive control allocation schemes for overactuated systems. International Journal of Robust and Nonlinear Control, 2010, 20, 1958-1980.	2.1	101
6	Explicit Reference Governor for Constrained Nonlinear Systems. IEEE Transactions on Automatic Control, 2016, 61, 1379-1384.	3.6	91
7	The Explicit Reference Governor: A General Framework for the Closed-Form Control of Constrained Nonlinear Systems. IEEE Control Systems, 2018, 38, 89-107.	1.0	65
8	Stochastic Sensor Scheduling for Energy Constrained Estimation in Multi-Hop Wireless Sensor Networks. IEEE Transactions on Automatic Control, 2011, 56, 2489-2495.	3.6	59
9	Nested saturation control of an UAV carrying a suspended load. , 2014, , .		54
10	Clock synchronization protocol for wireless sensor networks with bounded communication delays. Automatica, 2015, 59, 60-72.	3.0	53
11	Taut Cable Control of a Tethered UAV. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 3190-3195.	0.4	43
12	Constrained Control of UAVs in Geofencing Applications. , 2018, , .		43
13	LQG control over lossy TCP-like networks with probabilistic packet acknowledgements. International Journal of Systems, Control and Communications, 2010, 2, 55.	0.2	41
14	A fast ellipsoidal MPC scheme for discrete-time polytopic linear parameter varying systems. Automatica, 2012, 48, 2620-2626.	3.0	37
15	Explicit reference governor for linear systems. International Journal of Control, 2018, 91, 1415-1430.	1.2	37
16	LQG control with Markovian packet loss. , 2013, , .		36
17	Clock Synchronization in Wireless Sensor Network With Selective Convergence Rate for Event Driven Measurement Applications. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2279-2287.	2.4	33
18	Nonlinear control of a tethered UAV: The taut cable case. Automatica, 2017, 78, 174-184.	3.0	32

#	Article	IF	Citations
19	On infinite-horizon sensor scheduling. Systems and Control Letters, 2014, 67, 65-70.	1.3	31
20	LQG control for distributed systems over TCP-like erasure channels. , 2007, , .		30
21	Receding Horizon Control Strategies for Constrained LPV Systems Based on a Class of Nonlinearly Parameterized Lyapunov Functions. IEEE Transactions on Automatic Control, 2012, 57, 2354-2360.	3.6	30
22	Secure dynamic state estimation via local estimators. , 2016, , .		30
23	An Explicit Reference Governor for the Intersection of Concave Constraints. IEEE Transactions on Automatic Control, 2020, 65, 1-11.	3.6	29
24	Decentralized progressive shape formation with robot swarms. Autonomous Robots, 2019, 43, 1505-1521.	3.2	28
25	Sensorless supervision of linear dynamical systems: The Feed-Forward Command Governor approach. Automatica, 2011, 47, 1294-1303.	3.0	27
26	A Distributed Multi-Agent Command Governor Strategy for the Coordination of Networked Interconnected Systems. IEEE Transactions on Automatic Control, 2014, 59, 2099-2112.	3.6	26
27	Traveling Salesman Problem for a Class of Carrier-Vehicle Systems. Journal of Guidance, Control, and Dynamics, 2011, 34, 1272-1276.	1.6	24
28	Newton-based extremum seeking: A second-order Lie bracket approximation approach. Automatica, 2019, 105, 356-367.	3.0	24
29	Generalized Traveling Salesman Problem for Carrier-Vehicle Systems. Journal of Guidance, Control, and Dynamics, 2014, 37, 766-774.	1.6	23
30	Feasibility and Detection of Replay Attack in Networked Constrained Cyber-Physical Systems. , 2019, , .		23
31	LQG control over lossy TCP-like networks with probabilistic packet acknowledgements. , 2008, , .		22
32	Explicit reference governor for continuous time nonlinear systems subject to convex constraints. , 2015, , .		22
33	A Navigation Architecture for Ackermann Vehicles in Precision Farming. IEEE Robotics and Automation Letters, 2020, 5, 1103-1110.	3.3	22
34	Clock synchronization for wireless sensor network with communication delay. , 2013, , .		21
35	A robust explicit reference governor for constrained control of Unmanned Aerial Vehicles. , 2016, , .		21
36	Constrained Control of Linear Systems Subject to Combinations of Intersections and Unions of Concave Constraints. , 2019, 3, 571-576.		21

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37	A Distributed Method for Linear Programming Problems With Box Constraints and Time-Varying Inequalities. , 2019, 3, 404-409.		21
38	Linear matrix inequalities for globally monotonic tracking control. Automatica, 2015, 61, 173-177.	3.0	20
39	Adaptive fault tolerant actuator allocation for overactuated plants. Proceedings of the American Control Conference, 2007, , .	0.0	19
40	Distributed Command Governor strategies for constrained coordination of multi-agent networked systems. , 2012, , .		19
41	A feedback charge strategy for Li-ion battery cells based on Reference Governor. Journal of Process Control, 2019, 83, 164-176.	1.7	18
42	Control of Fully Actuated Unmanned Aerial Vehicles with Actuator Saturation * *This research has been funded by the Mandats dâ€™Impulsion Scientific â€Optimization-free Control of Nonlinear Systems subject to Constraintsâ€•of the Fonds de la Recherche Scientifique (FNRS), Ref. F452617F.. IFAC-PapersOnLine, 2017, 50, 12715-12720.	0.5	17
43	Control of a quadrotor and a ground vehicle manipulating an object. Automatica, 2019, 105, 384-390.	3.0	17
44	Secure Dynamic State Estimation by Decomposing Kalman Filter. IFAC-PapersOnLine, 2017, 50, 7351-7356.	0.5	16
45	A distributed optimal power management system for microgrids with plug&play capabilities. Advanced Control for Applications, 2021, 3, .	0.8	16
46	Control of a UAV and a UGV cooperating to manipulate an object. , 2016, , .		15
47	A general framework for approximated model stable inversion. Automatica, 2019, 101, 182-189.	3.0	15
48	Review of Cyber-Physical Attacks in Smart Grids: A System-Theoretic Perspective. Electronics (Switzerland), 2021, 10, 1153.	1.8	15
49	An improved predictive control strategy for polytopic LPV linear systems. , 2006, , .		14
50	A hierarchical approach to energy management in data centers. , 2010, , .		14
51	Model-free Learning to Avoid Constraint Violations: An Explicit Reference Governor Approach. , 2019, , .		14
52	Dilated model predictive control strategy for linear parameter-varying systems with a time-varying terminal set. IET Control Theory and Applications, 2009, 3, 110-120.	1.2	13
53	Improved Feed-Forward Command Governor Strategies for Constrained Discrete-Time Linear Systems. IEEE Transactions on Automatic Control, 2014, 59, 216-223.	3.6	13
54	A liveliness analysis of a distributed constrained coordination strategy for multi-agent linear systems. , 2011, , .		12

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55	Computationally-efficient constrained control of the state-of-charge of a Li-ion battery cell. , 2017, , .		12
56	Constrained control of free piston engine generator based on implicit reference governor. Science China Information Sciences, 2018, 61, 1.	2.7	12
57	An Explicit Reference Governor Scheme for Closed-Loop Anesthesia. , 2019, , .		12
58	Distributed constrained connectivity control for proximity networks based on a receding horizon scheme. , 2015, , .		11
59	Information-Driven Path Planning for UAV With Limited Autonomy in Large-Scale Field Monitoring. IEEE Transactions on Automation Science and Engineering, 2022, 19, 2450-2460.	3.4	11
60	Smart testing and selective quarantine for the control of epidemics. Annual Reviews in Control, 2021, 51, 540-550.	4.4	11
61	A general ODE-based model to describe the physiological age structure of ectotherms: Description and application to Drosophila suzukii. Ecological Modelling, 2021, 456, 109673.	1.2	11
62	Cooperative mission planning for a class of carrier-vehicle systems. , 2010, , .		10
63	A Distributed Parallel Command Governor Strategy for the Coordination of Multi-agent Networked Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 478-483.	0.4	10
64	An Explicit Reference Governor for the robust constrained control of nonlinear systems. , 2016, , .		10
65	A novel Observer-based Architecture for Water Management in Large-Scale (Hazelnut) Orchards. IFAC-PapersOnLine, 2019, 52, 62-69.	0.5	10
66	Explicit Reference Governor for the Constrained Control of Linear Time-Delay Systems. IEEE Transactions on Automatic Control, 2019, 64, 2883-2889.	3.6	10
67	Constrained Control of Depth of Hypnosis During Induction Phase. IEEE Transactions on Control Systems Technology, 2020, 28, 2490-2496.	3.2	10
68	Local Decomposition of Kalman Filters and its Application for Secure State Estimation. IEEE Transactions on Automatic Control, 2021, 66, 5037-5044.	3.6	10
69	Enhancing the actuator fault tolerance in autonomous overactuated vehicles via adaptive control allocation. , 2008, , .		9
70	Distributed coordination-by-constraint strategies for multi-agent networked systems. , 2011, , .		9
71	Scalability and Performance Improvement of Distributed Sequential Command Governor Strategies via Graph Colorability Theory. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9400-9405.	0.4	9
72	A distributed command governor based on graph colorability theory. International Journal of Robust and Nonlinear Control, 2018, 28, 3056-3072.	2.1	9

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73	MPC strategies based on the equivalent hydraulic model for the fast charge of commercial Li-ion batteries. Computers and Chemical Engineering, 2020, 141, 107010.	2.0	9
74	Reference dependent invariant sets: Sum of squares based computation and applications in constrained control. Automatica, 2021, 129, 109614.	3.0	9
75	An Off-Line MPC Strategy for Nonlinear Systems Based on SOS Programming. Lecture Notes in Control and Information Sciences, 2009, , 491-499.	0.6	9
76	Modeling and Control of 5-DoF Boom Crane. , 2020, , .		9
77	Setâ€points reconfiguration in networked multiâ€area electrical power systems. International Journal of Adaptive Control and Signal Processing, 2009, 23, 808-832.	2.3	8
78	Localized fine accuracy synchronization in Wireless Sensor Network based on consensus approach. , 2012, , .		8
79	Cooperative pose stabilization of an aerial vehicle through physical interaction with a team of ground robots. , 2012, , .		8
80	Suckers Emission Detection and Volume Estimation for the Precision Farming of Hazelnut Orchards. , 2020, , .		8
81	Nonlinear MPC for Tracking for a Class of Nonconvex Admissible Output Sets. IEEE Transactions on Automatic Control, 2021, 66, 3726-3732.	3.6	8
82	Modelling ectothermsâ€™ populations considering physiological age structure and spatial motion: A novel approach. Ecological Informatics, 2022, 70, 101703.	2.3	8
83	New stabilizability conditions for discrete-time linear parameter varying systems. , 2007, , .		7
84	Cooperative path planning for a class of carrier-vehicle systems.. , 2008, , .		7
85	Distributed Coordination Strategies for Interconnected Multi-Agent Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 403-408.	0.4	7
86	Switching control laws in the presence of measurement noise. Systems and Control Letters, 2010, 59, 353-364.	1.3	7
87	A parallel distributed coordination-by-constraint strategy for multi-agent networked systems. , 2012, , .		7
88	Infinite-horizon sensor scheduling for estimation over lossy networks. , 2012, , .		7
89	A Distributed Explicit Reference Governor for Constrained Control of Multiple UAVsâˆ—âˆ—This work is supported by the FRIA scholarship grant CAT-AVIATOR.. IFAC-PapersOnLine, 2015, 48, 156-161.	0.5	7
90	Fast Reference Governor for Linear Systems. Journal of Guidance, Control, and Dynamics, 2017, 40, 461-465.	1.6	7

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91	Control of the State-of-Charge of a Li-ion Battery Cell via Reference Governor.**This work is performed in the framework of the BATWAL project financed by the Walloon region (Belgium).This research has been funded by the Mandats dâ€™Impulsion Scientific "Optimization-free Control of Nonlinear Systems subject to Constraints" of the Fonds de la Recherche Scientifique (FNRS), Ref. F452617F.This research has been funded by Fonds pour la Formation Ã la Recherche dans lâ€™Industrie et dans lâ€™Agriculture (FRIA) of th. IFAC-PapersOnLine, 2017, 50, 13742-13753.	0.5	7
92	Faster and Healthier Charging of Lithium-Ion Batteries via Constrained Feedback Control. IEEE Transactions on Control Systems Technology, 2022, 30, 1990-2001.	3.2	7
93	Distributed Coordination-by-Constraint Strategies for Networked Control Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 144-149.	0.4	6
94	Robust Stability of linear uncertain systems through Piecewise Quadratic Lyapunov Functions defined over conical partitions. , 2012, , .		6
95	Thermal models characterization for reliable temperature capping and performance optimization in Multiprocessor Systems on Chip. , 2012, , .		6
96	Nonlinear control of an actuated tethered airfoil. , 2014, , .		6
97	Piecewise quadratic Lyapunov functions over conical partitions for robust stability analysis. International Journal of Robust and Nonlinear Control, 2015, 25, 2348-2361.	2.1	6
98	Time Shift Governor for Coordinated Control of Two Spacecraft Formations. IFAC-PapersOnLine, 2016, 49, 296-301.	0.5	6
99	Parameter Governors for Coordinated Control of n-Spacecraft Formations. Journal of Guidance, Control, and Dynamics, 2017, 40, 3020-3025.	1.6	6
100	Output Admissible Sets and Reference Governors: Saturations Are Not Constraints!. IEEE Transactions on Automatic Control, 2020, 65, 1192-1196.	3.6	6
101	Carrier-vehicle system for delivery in city environments. IFAC-PapersOnLine, 2020, 53, 15253-15258.	0.5	6
102	Distributed Reference Management Strategies for Networked Water Distribution Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8951-8956.	0.4	5
103	Distributed coordination-by-constraint strategies in networked multi-area power systems. , 2011, , .		5
104	Piecewise quadratic functions for finite-time stability analysis. , 2012, , .		5
105	A travelling salesman problem for a class of heterogeneous multi-vehicle systems. , 2012, , .		5
106	Wireless Sensor Networks Clock Synchronization with Selective Convergence Rate. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 146-151.	0.4	5
107	On the use of IMUs in the PnP problem. , 2014, , .		5
108	Control of Euler-Lagrange systems subject to constraints: An Explicit Reference Governor approach. , 2015, , .		5

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109	A leader-follower architecture for Load Frequency Control purposes against cyber attacks in power grids - Part II. , 2016, , .		5
110	Subâ€optimal extremum seeking control for static maps. IET Control Theory and Applications, 2018, 12, 745-752.	1.2	5
111	Constrained Extremum Seeking: a Modified-Barrier Function Approach. IFAC-PapersOnLine, 2019, 52, 694-699.	0.5	5
112	Constraint Control of a Boom Crane System. , 2020, , .		5
113	The use of robotics devices in knee rehabilitation: a critical review. Muscles, Ligaments and Tendons Journal, 2019, 09, 21.	0.1	5
114	The Distributed Command Governor Approach in a Nutshell. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 259-274.	0.3	5
115	A two-layer distributed MPC approach to thermal control of Multiprocessor Systems-on-Chip. Control Engineering Practice, 2022, 122, 105099.	3.2	5
116	An off-line MPC scheme for discrete-time linear parameter varying systems. , 2009, , .		4
117	Attitude Constrained Control on SO(3): An Explicit Reference Governor Approach. , 2018, , .		4
118	A Distributed Swarm Aggregation Algorithm for Bar Shaped Multi-Agent Systems. , 2018, , .		4
119	A Structural Approach to State-to-Output Decoupling. SIAM Journal on Control and Optimization, 2018, 56, 3816-3847.	1.1	4
120	Precision Stationary Flight of a Robotic Hummingbird. , 2019, , .		4
121	Reference Governor for Constrained Control Over Lossy Channels. , 2020, 4, 271-276.		4
122	Safety enforcement in closed-loop anesthesiaâ€"A comparison study. Control Engineering Practice, 2020, 105, 104653.	3.2	4
123	Low-Complexity Fast Charging Strategies Based on Explicit Reference Governors for Li-Ion Battery Cells. IEEE Transactions on Control Systems Technology, 2021, 29, 1597-1608.	3.2	4
124	Modelling and control of a knuckle boom crane. International Journal of Control, 2022, 95, 2420-2437.	1.2	4
125	On the Effect of Packet Acknowledgment on the Stability and Performance of Networked Control Systems. Understanding Complex Systems, 2009, , 191-206.	0.3	4
126	Planning Algorithms for a Class of Heterogeneous Multi-Vehicle Systems.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 969-974.	0.4	3

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127	Sensor scheduling for energy constrained estimation in multi-hop Wireless Sensor Networks. , 2010, , .		3
128	P3P and P2P problems with known camera and object vertical directions. , 2013, , .		3
129	Sufficient conditions for the stability of a class of second order systems. Systems and Control Letters, 2015, 84, 1-6.	1.3	3
130	A passivity-based approach for constrained mobile robotic networks. , 2016, , .		3
131	A parallel distributed supervision strategy for multi-agent networked systems. Systems and Control Letters, 2016, 97, 115-124.	1.3	3
132	A Passivity-Based Distributed Reference Governor for Constrained Robotic Networks * *This work is supported by EM-EASED, FRIA, and JSPS KAK- ENHI Grant Number JP15H04019. The stay of Tam Nguyen in Tokyo Institute of Technology has been supported by the Erasmus Mundus EASED programme (Grant) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.5	3
133	Constrained Control of Robotic Manipulators Using the Explicit Reference Governor. , 2018, , .		3
134	Extremum Seeking Algorithms based on Non-Commutative Maps. IFAC-PapersOnLine, 2019, 52, 688-693.	0.5	3
135	Thrust vector control of constrained multibody systems. Automatica, 2021, 129, 109586.	3.0	3
136	A Project-Based Learning Approach for Building an Affordable Control Teaching Lab: The Centrifugal Ring Positioner. IEEE Access, 2022, 10, 4907-4918.	2.6	3
137	Improved Feed-Forward Command Governor strategies for discrete-time time-invariant linear systems. , 2011, , .		2
138	Sub-Optimal Extremum Seeking Control * *This work is supported by the Fonds National de la Recherche Scientifique (FNRS) under Grant ASP 24923120 and under Grant MIS F.4526.17 â€Optimization-free Control of Nonlinear Systems subject to Constraintsâ€. IFAC-PapersOnLine, 2017, 50, 7762-7768.	0.5	2
139	Explicit Reference Governor Toolbox (ERGT). , 2018, , .		2
140	Fast Charge of Li-ion Batteries using a Two-Layer Distributed MPC with Electro-Chemical and Thermal Constraints. , 2019, , .		2
141	Scalar Reference Governor for Constrained Maneuver and Shape Control of Nonlinear Multibody Aircraft. IFAC-PapersOnLine, 2019, 52, 819-824.	0.5	2
142	Modeling, Simulation and Optimal Operation of Multi-Extraction Packed-Bed Thermal Storage Systems. Energies, 2020, 13, 2247.	1.6	2
143	Geodesic Approach for the Control of Tethered Quadrotors. Journal of Guidance, Control, and Dynamics, 2020, 43, 854-862.	1.6	2
144	Camera and inertial sensor fusion for the PnP problem: algorithms and experimental results. Machine Vision and Applications, 2021, 32, 1.	1.7	2

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145	Control of a multirobot bricklaying system. Advanced Control for Applications, 2021, 3, e90.	0.8	2
146	A Model Predictive Control Application for a Constrained Fast Charge of Lithium-ion Batteries. , 2019, , .		2
147	MP-STSP: A Multi-Platform Steiner Traveling Salesman Problem Formulation for Precision Agriculture in Orchards. , 2021, , .		2
148	On the use of the inclinometers in the PnP problem. , 2013, , .		2
149	On the effect of the number of tests and their time of application in tracing policies against COVID-19.. IFAC-PapersOnLine, 2021, 54, 157-162.	0.5	2
150	Command Governors with Inexact Optimization and Without Invariance. Journal of Guidance, Control, and Dynamics, 2022, 45, 1523-1528.	1.6	2
151	New conditions for finite‐time stability of impulsive dynamical systems via piecewise quadratic functions. IET Control Theory and Applications, 2022, 16, 1341-1351.	1.2	2
152	A dilated MPC control strategy for LPV linear systems. , 2007, , .		1
153	A FeedForward Command Governor Strategy for Constrained Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 1023-1028.	0.4	1
154	Stochastic sensor scheduling in Wireless Sensor Networks with general graph topology. , 2012, , .		1
155	A Distributed Reference Governor for High-Order LTI Swarm Systems. , 2018, , .		1
156	Tracking MPC with non-convex steady state admissible sets. IFAC-PapersOnLine, 2018, 51, 153-156.	0.5	1
157	MIMO tracking control of LTI systems: A geometric approach. Systems and Control Letters, 2019, 126, 8-20.	1.3	1
158	Constrained Control of Linear Discrete-Time Systems Under Quartic Performance Criterion. , 2020, 4, 301-306.		1
159	Nonlinear Model Predictive Control of a 5-DoFs Boom Crane. , 2021, , .		1
160	A New Reference Governor Strategy For Union of Linear Constraints. IFAC-PapersOnLine, 2020, 53, 5499-5504.	0.5	1
161	Discontinuous control systems in the presence of measurement noise. , 2009, , .		0
162	Swarm aggregation with a multi-robot system composed of three robotic units: A closed form analysis. , 2014, , .		0

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163	A new method for the row-by-row decoupling problem with pole assignment. , 2016, , .		0
164	A geometric approach to constrained tracking control. , 2016, , .		0
165	On the Link Between Multi-Coloring Problems for Graphs and Distributed Supervision of Interconnected Systems. , 2018, , .		0
166	Multi-mode Controller for Propellantless Spacecraft Translational Maneuvering Through Orientation Changes Only. IFAC-PapersOnLine, 2019, 52, 825-830.	0.5	0
167	Explicit Reference Governor for Constrained Maneuver and Shape Control of a Seven-State Multibody Aircraft. , 2020, , .		0
168	Constrained Control with Communication Blackouts: Theory and Experimental Validation over Wi-Fi. , 2021, , .		0
169	Distributed Supervisory Strategies forÂMulti-agent Networked Systems. Studies in Systems, Decision and Control, 2016, , 411-427.	0.8	0
170	Constrained Control in Three Dimensions via Explicit Reference Governor. Transactions of the Society of Instrument and Control Engineers, 2019, 55, 762-771.	0.1	0
171	On the solvability of the global monotonic tracking for subsets of output components. , 2019, , .		0
172	A comparison of low-complexity charging and balancing protocols with degradation awareness for a string of Li-ion cells. IFAC-PapersOnLine, 2020, 53, 11570-11576.	0.5	0