

Luca Consolini

List of Publications by Year in descending order

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85
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1,410
citations

516710

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86
all docs

86
docs citations

86
times ranked

1209
citing authors

#	ARTICLE	IF	CITATIONS
1	A Sequential Algorithm for Jerk Limited Speed Planning. IEEE Transactions on Automation Science and Engineering, 2022, 19, 3192-3209.	5.2	2
2	Structured identification for network reconstruction of RC-models. Systems and Control Letters, 2021, 147, 104849.	2.3	2
3	Optimized feedforward control of propofol for induction of hypnosis in general anesthesia. Biomedical Signal Processing and Control, 2021, 66, 102476.	5.7	7
4	Optimizing cooperative pallet loading robots: A mixed integer approach. IEEE Robotics and Automation Letters, 2021, , 1-1.	5.1	1
5	A Graph-Based Algorithm for Optimal Control of Switched Systems:An Application to Car Parking. IEEE Transactions on Automatic Control, 2021, 66, 6049-6055.	5.7	4
6	Optimized Reference Signal for Induction of General Anesthesia with Propofol. IFAC-PapersOnLine, 2021, 54, 7-12.	0.9	0
7	Optimized robust combined feedforward/feedback control of propofol for induction of hypnosis in general anesthesia. , 2021, , .		0
8	Convergence Analysis of Spatial-Sampling-Based Algorithms for Time-Optimal Smooth Velocity Planning. Journal of Optimization Theory and Applications, 2020, 184, 1083-1108.	1.5	4
9	A solution of the minimum-time speed planning problem based on lattice theory. Journal of the Franklin Institute, 2020, 357, 7617-7637.	3.4	6
10	Efficient local search procedures for quadratic fractional programming problems. Computational Optimization and Applications, 2020, 76, 201-232.	1.6	2
11	Fast numerical solution of optimal control problems for switched systems: An application to path planning. , 2020, , .		0
12	Optimal Time-Complexity Speed Planning for Robot Manipulators. IEEE Transactions on Robotics, 2019, 35, 790-797.	10.3	27
13	Graph-based algorithms for the efficient solution of optimization problems involving monotone functions. Computational Optimization and Applications, 2019, 73, 101-128.	1.6	4
14	A Convex Optimization Approach for Equivariant Control Systems. IEEE Transactions on Automatic Control, 2019, 64, 3846-3852.	5.7	0
15	Time-optimal velocity planning by a bound-tightening technique. Computational Optimization and Applications, 2018, 70, 61-90.	1.6	6
16	A Multigraph-Based Selective Update Method for the Efficient Solution of Dynamic Programming. , 2018, , .		3
17	Synthesis of virtual holonomic constraints for obtaining stable constraint dynamics. Automatica, 2018, 93, 262-273.	5.0	1
18	Dynamic virtual holonomic constraints for stabilization of closed orbits in underactuated mechanical systems. Automatica, 2018, 94, 112-124.	5.0	30

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19	An optimal complexity algorithm for minimum-time velocity planning. Systems and Control Letters, 2017, 103, 50-57.	2.3	26
20	On the Lagrangian structure of reduced dynamics under virtual holonomic constraints. ESAIM - Control, Optimisation and Calculus of Variations, 2017, 23, 913-935.	1.3	6
21	On the complexity of quadratic programming with two quadratic constraints. Mathematical Programming, 2017, 164, 91-128.	2.4	11
22	Solving the Minimum-Time Velocity Planning Problem through an Hypergraph-Based Approach. IFAC-PapersOnLine, 2017, 50, 10638-10643.	0.9	0
23	A Consensus Approach to Dynamic Programming. IFAC-PapersOnLine, 2017, 50, 8435-8440.	0.9	2
24	A Jacobi-like acceleration for dynamic programming. , 2016, , .		5
25	Space-learning tracking control for permanent magnet step motors. Automatica, 2016, 73, 223-230.	5.0	9
26	Impact of different auto-scaling strategies on adaptive Mobile Cloud Computing systems. , 2016, , .		0
27	Induced connections on virtual holonomic constraints. , 2015, , .		1
28	Synthesis of virtual holonomic constraints with stable constraint dynamics. , 2015, , .		0
29	On the distributed stabilization and consensus of symmetrically interconnected agents. , 2015, , .		3
30	Static output feedback of equivariant linear systems with applications to the control of interconnected agents. , 2014, , .		5
31	A Gauss-Newton Method for the Synthesis of Periodic Outputs With Central Pattern Generators. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 1394-1400.	11.3	3
32	Learning control in spatial coordinates for the path-following of autonomous vehicles. Automatica, 2014, 50, 1867-1874.	5.0	34
33	Hermite Polynomials for Iterative Output Replanning for Flat Systems Affected by Additive Noise. Asian Journal of Control, 2013, 15, 292-301.	3.0	0
34	Algebraic solution to minimum-time velocity planning. International Journal of Control, Automation and Systems, 2013, 11, 805-814.	2.7	10
35	Control of a bicycle using virtual holonomic constraints. Automatica, 2013, 49, 2831-2839.	5.0	21
36	Virtual Holonomic Constraints for Euler-Lagrange Systems. IEEE Transactions on Automatic Control, 2013, 58, 1001-1008.	5.7	95

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37	Active Filter for the Removal of the DC Current Component for Single-Phase Power Lines. IEEE Transactions on Industrial Electronics, 2013, 60, 4403-4414.	7.9	34
38	Minimum-time feedforward control of an open liquid container. , 2013, , .		6
39	Synthesis of virtual holonomic constraints for 3-DOF mechanical systems. , 2013, , .		2
40	When is a Lagrangian Control System With Virtual Holonomic Constraints Lagrangian?. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 512-517.	0.4	14
41	Spatio-temporal symmetries in control systems: an application to formation control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 779-784.	0.4	12
42	Learning control in spatial coordinates for the path-following of autonomous vehicles. , 2013, , .		3
43	Spatio-temporal symmetries in linear control systems with an application to formation control. , 2013, , .		1
44	Further Results on Virtual Holonomic Constraints. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 84-89.	0.4	6
45	Minimum-time rest-to-rest feedforward action for PID feedback MIMO systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 217-222.	0.4	3
46	A Minimum Phase Output in the Exact Tracking Problem for the Nonminimum Phase Underactuated Surface Ship. IEEE Transactions on Automatic Control, 2012, 57, 3174-3180.	5.7	37
47	Synchronizing N cart-pendulums using virtual holonomic constraints. , 2012, , .		0
48	On a Class of Hierarchical Formations of Unicycles and Their Internal Dynamics. IEEE Transactions on Automatic Control, 2012, 57, 845-859.	5.7	21
49	On the Swing-Up of the Pendubot Using Virtual Holonomic Constrains. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9290-9295.	0.4	0
50	A nonlinear Reactor for DC Current Compensation in Single Phase Power Lines. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12273-12278.	0.4	2
51	A continuation theorem on periodic solutions of regular nonlinear systems and its application to the exact tracking problem for the inverted spherical pendulum. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 9-26.	1.1	4
52	A sufficient condition for dichotomy based on a suitable invariance property. Journal of Differential Equations, 2011, 251, 1475-1488.	2.2	0
53	Multi-optimization of \mathcal{C}^3 -splines for autonomous parking. , 2011, , .		13
54	Modeling and stability analysis of an active filter for DC current compensation. , 2011, , .		3

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55	Modeling and analysis of a DC current compensator in distribution power lines. , 2011, , .		1
56	On the swing-up of the Pendubot using virtual holonomic constrains. , 2011, , .		5
57	Virtual Holonomic Constraints for Euler-Lagrange Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 1193-1198.	0.4	13
58	Path following for the PVTOL aircraft. Automatica, 2010, 46, 1284-1296.	5.0	80
59	Iterative output replanning for flat systems affected by additive noise. , 2010, , .		1
60	Control of a bicycle using virtual holonomic constraints. , 2010, , .		7
61	Recursive convex replanning for the trajectory tracking of wheeled mobile robots. , 2010, , .		2
62	How to find a minimum phase output in the exact tracking problem for the nonminimum phase underactuated surface ship. , 2010, , .		3
63	On the internal dynamics of formations of unicycle robots. , 2010, , .		0
64	Non-rigid formations of nonholonomic robots. , 2010, , .		2
65	An homotopy method for exact tracking of nonlinear nonminimum phase systems: The example of the spherical inverted pendulum. , 2009, , .		1
66	Stabilization of a Hierarchical Formation of Unicycle Robots with Velocity and Curvature Constraints. IEEE Transactions on Robotics, 2009, 25, 1176-1184.	10.3	48
67	Adjacency Matrix-Based Transmit Power Allocation Strategies in Wireless Sensor Networks. Sensors, 2009, 9, 5390-5422.	3.8	7
68	Flexible joints control: A minimum-time feed-forward technique. Mechatronics, 2009, 19, 348-356.	3.3	7
69	On the exact tracking of the spherical inverted pendulum via an homotopy method. Systems and Control Letters, 2009, 58, 1-6.	2.3	18
70	Generalized bang-bang control for feedforward constrained regulation. Automatica, 2009, 45, 2234-2243.	5.0	21
71	Minimum-time constrained velocity planning. , 2009, , .		7
72	Leader-follower formation control of nonholonomic mobile robots with input constraints. Automatica, 2008, 44, 1343-1349.	5.0	567

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73	A nonlinear dynamic inversion computational approach applied to the exact tracking problem for the spherical pendulum. , 2008, , .		2
74	On the exact tracking of the spherical inverted pendulum via an homotopy method. , 2008, , .		0
75	Steering hierarchical formations of unicycle robots. , 2007, , .		1
76	An algorithm for minimum-time feedforward control based on convexity. , 2007, , .		1
77	Minimum-time control of flexible joints with input and output constraints. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	8
78	A morphing method for exact tracking control of nonminimum phase non linear systems. , 2007, , .		5
79	A Geometric Characterization of Leader-Follower Formation Control. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	42
80	On the Existence of Small Periodic Solutions for the 2-Dimensional Inverted Pendulum on a Cart. SIAM Journal on Applied Mathematics, 2007, 68, 486-502.	1.8	7
81	On the VTOL Exact Tracking With Bounded Internal Dynamics via a Poincaré Map Approach. IEEE Transactions on Automatic Control, 2007, 52, 1757-1762.	5.7	26
82	Minimum-time feedforward control for industrial processes. , 2007, , .		4
83	Minimum-time feedforward control with input and output constraints. , 2006, , .		4
84	A path following problem for a class of non-holonomic control systems with noise. Automatica, 2005, 41, 1009-1016.	5.0	16
85	Path following of car-like vehicles using dynamic inversion. International Journal of Control, 2003, 76, 1724-1738.	1.9	13