

Mireille E Broucke

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,378
citations

623188

14
h-index

433756

31
g-index

60
all docs

60
docs citations

60
times ranked

753
citing authors

#	ARTICLE	IF	CITATIONS
1	Stabilisation of infinitesimally rigid formations of multi-robot networks. International Journal of Control, 2009, 82, 423-439.	1.2	473
2	Pursuit formations of unicycles. Automatica, 2006, 42, 3-12.	3.0	177
3	A hierarchical cyclic pursuit scheme for vehicle networks. Automatica, 2005, 41, 1045-1053.	3.0	99
4	Necessary and sufficient conditions for reachability on a simplex. Automatica, 2006, 42, 1913-1918.	3.0	63
5	Stabilization of infinitesimally rigid formations of multi-robot networks. , 2008, , .		59
6	Curve Shortening and the Rendezvous Problem for Mobile Autonomous Robots. IEEE Transactions on Automatic Control, 2007, 52, 1154-1159.	3.6	46
7	Time Optimal Swing-Up of the Planar Pendulum. IEEE Transactions on Automatic Control, 2008, 53, 1876-1886.	3.6	44
8	Experiments in multirobot coordination. Robotics and Autonomous Systems, 2006, 54, 265-275.	3.0	42
9	Continuous selections of trajectories of hybrid systems. Systems and Control Letters, 2002, 47, 149-157.	1.3	29
10	Reach Control on Simplices by Piecewise Affine Feedback. SIAM Journal on Control and Optimization, 2014, 52, 3261-3286.	1.1	27
11	Monotonic Reach Control on Polytopes. IEEE Transactions on Automatic Control, 2013, 58, 2704-2709.	3.6	25
12	Stability and controllability of planar, conewise linear systems. Systems and Control Letters, 2007, 56, 150-158.	1.3	23
13	Time-varying affine feedback for reach control on simplices. Automatica, 2013, 49, 1365-1369.	3.0	17
14	Efficient Solution of Optimal Control Problems Using Hybrid Systems. SIAM Journal on Control and Optimization, 2005, 43, 1923-1952.	1.1	14
15	On a reachability problem for affine hypersurface systems on polytopes. Automatica, 2011, 47, 769-775.	3.0	14
16	Patterned linear systems. Automatica, 2012, 48, 263-272.	3.0	14
17	On the least restrictive control for collision avoidance of two unicycles. International Journal of Robust and Nonlinear Control, 2006, 16, 553-574.	2.1	13
18	Reachability of a Set of Facets for Linear Affine Systems With n-1 Inputs. IEEE Transactions on Automatic Control, 2007, 52, 359-364.	3.6	12

#	ARTICLE	IF	CITATIONS
19	Flow functions, control flow functions, and the reach control problem. Automatica, 2015, 55, 108-115.	3.0	10
20	Geometric control of patterned linear systems. , 2010, , .		9
21	Safe and robust robot maneuvers based on reach control. , 2016, , .		9
22	Symmetry Invariance of Multiagent Formations in Self-Pursuit. IEEE Transactions on Automatic Control, 2008, 53, 2022-2032.	3.6	8
23	Patterned linear systems: Rings, chains, and trees. , 2010, , .		8
24	Design of reach controllers on simplices. , 2013, , .		8
25	Control of a gantry crane: A reach control approach. , 2014, , .		8
26	An Automated Parallel Parking Strategy Using Reach Control Theory * **This research is supported by The Natural Sciences and Engineering Research Council of Canada.. IFAC-PapersOnLine, 2017, 50, 9089-9094.	0.5	8
27	Chattering in the Reach Control Problem. Automatica, 2018, 89, 201-211.	3.0	8
28	Adaptive Internal Model Theory of the Oculomotor System and the Cerebellum. IEEE Transactions on Automatic Control, 2021, 66, 5444-5450.	3.6	8
29	Viability Kernels for Nonlinear Control Systems Using Bang Controls. IEEE Transactions on Automatic Control, 2010, 55, 1280-1284.	3.6	7
30	Reach control on simplices by piecewise affine feedback. , 2011, , .		7
31	A Modular Framework for Motion Planning Using Safe-by-Design Motion Primitives. IEEE Transactions on Robotics, 2019, 35, 1233-1252.	7.3	7
32	Monotonic reach control on polytopes. , 2011, , .		6
33	Generalized flow conditions for reach control on polytopes. , 2012, , .		6
34	An obstruction to solvability of the reach control problem using affine feedback. Automatica, 2016, 71, 229-236.	3.0	6
35	Continuous Interpolation of Solutions of Lipschitz Inclusions. Journal of Mathematical Analysis and Applications, 2001, 258, 565-572.	0.5	5
36	On the necessity of the invariance conditions for reach control on polytopes. Systems and Control Letters, 2016, 90, 16-19.	1.3	5

#	ARTICLE	IF	CITATIONS
37	A framework for multi-vehicle navigation using feedback-based motion primitives. , 2017, , .		5
38	Visuomotor Adaptation is a Disturbance Rejection Problem. , 2020, , .		5
39	A Viability Problem for Control Affine Systems with Application to Collision Avoidance. , 2006, , .		4
40	Discrete-time Output Regulation and Visuomotor Adaptation. , 2021, , .		4
41	Time optimal swing-up of the planar pendulum. , 2007, , .		3
42	Stability and controllability of planar, conewise linear systems. , 2007, , .		3
43	Controllability is not sufficient for pole placement in patterned systems. , 2015, , .		3
44	A viability approach to the Output Reach Control Problem. , 2016, , .		3
45	Pattern preserving pole placement and stabilization for linear systems. , 2016, , .		3
46	Characterization of a topological obstruction to reach control by continuous state feedback. Mathematics of Control, Signals, and Systems, 2017, 29, 1.	1.4	3
47	A topological obstruction in a control problem. Systems and Control Letters, 2017, 108, 71-79.	1.3	3
48	Model of the oculomotor system based on adaptive internal models. IFAC-PapersOnLine, 2020, 53, 16430-16437.	0.5	3
49	Adaptive Internal Models in the Optokinetic System. , 2021, , .		3
50	On the Use of Regulator Theory in Neuroscience with Implications for Robotics. , 2021, , .		2
51	Stability of Discrete-Time Switched Systems With Multiple Equilibria Using a Common Quadratic Lyapunov Function. , 2022, 6, 2497-2502.		2
52	A method to construct viability kernels for nonlinear control systems. , 2009, , .		1
53	Reach control problem with disturbance rejection. , 2014, , .		1
54	Pattern identification in distributed systems. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
55	Control of a class of patterned systems. International Journal of Control, 2018, 91, 1489-1507.	1.2	1
56	Adaptive Cruise Control Design Using Reach Control. , 2018, , .		1
57	Reach control on simplices by continuous state feedback. , 2009, , .		0
58	Stabilizing Patterned Distributed Systems by State and Measurement Feedback * *This work is supported by the Natural Sciences and Engineering Research Council of Canada (NSERC). IFAC-PapersOnLine, 2017, 50, 14278-14283.	0.5	0
59	On the Use of Regulator Theory in Neuroscience with Implications for Robotics. , 2021, , .		0
60	Gait Control of a Fully Actuated Walking Robot. IFAC-PapersOnLine, 2020, 53, 9577-9583.	0.5	0