

# Magnus Egerstedt

Professor of Electrical and Computer Engineering, Georgia Institute of Technology Control Theory Robotics

	All	Since 2013
Citations	13845	7962
h-index	48	33
i10-index	218	134

TITLE	CITED BY	YEAR
Graph theoretic methods in multiagent networks M Mesbahi, M Egerstedt Princeton University Press	1526	2010
Formation constrained multi-agent control M Egerstedt, X Hu IEEE transactions on robotics and automation 17 (6), 947-951	832	2001
Distributed coordination control of multiagent systems while preserving connectedness M Ji, M Egerstedt IEEE Transactions on Robotics 23 (4), 693-703	630	2007
Controllability of multi-agent systems from a graph-theoretic perspective A Rahmani, M Ji, M Mesbahi, M Egerstedt SIAM Journal on Control and Optimization 48 (1), 162-186	541	2009
A control Lyapunov function approach to multi-agent coordination P Ogren, M Egerstedt, X Hu Decision and Control, 2001. Proceedings of the 40th IEEE Conference on 2	508	2001
On the regularization of Zeno hybrid automata KH Johansson, M Egerstedt, J Lygeros, S Sastry Systems & control letters 38 (3), 141-150	413	1999
Containment control in mobile networks M Ji, G Ferrari-Trecate, M Egerstedt, A Buffa IEEE Transactions on Automatic Control 53 (8), 1972-1975	373	2008
Symbolic planning and control of robot motion [grand challenges of robotics] C Belta, A Bicchi, M Egerstedt, E Frazzoli, E Klavins, GJ Pappas IEEE Robotics & Automation Magazine 14 (1), 61-70	311	2007
Control of mobile platforms using a virtual vehicle approach M Egerstedt, X Hu, A Stotsky IEEE transactions on automatic control 46 (11), 1777-1782	273	2001
Transition-time optimization for switched-mode dynamical systems M Egerstedt, Y Wardi, H Axelsson IEEE Transactions on Automatic Control 51 (1), 110-115	272	2006
Graph-theoretic connectivity control of mobile robot networks MM Zavlanos, MB Egerstedt, GJ Pappas Proceedings of the IEEE 99 (9), 1525-1540	267	2011
Distributed containment control with multiple stationary or dynamic leaders in fixed and switching directed networks Y Cao, W Ren, M Egerstedt Automatica 48 (8), 1586-1597	S 245	2012

TITLE	CITED BY	YEAR
Autonomous UAV path planning and estimation J Tisdale, ZW Kim, JK Hedrick IEEE Robotics & Automation Magazine 16 (2)	183	2009
Optimal control of switching times in switched dynamical systems M Egerstedt, Y Wardi, F Delmotte Decision and Control, 2003. Proceedings. 42nd IEEE Conference on 3, 2138-2143	168	2003
Containment in leader–follower networks with switching communication topologies G Notarstefano, M Egerstedt, M Haque Automatica 47 (5), 1035-1040	159	2011
Leader-based multi-agent coordination: Controllability and optimal control M Ji, A Muhammad, M Egerstedt American Control Conference, 2006, 6 pp.	158	2006
Autonomous driving in urban environments: approaches, lessons and challenges M Campbell, M Egerstedt, JP How, RM Murray Philosophical Transactions of the Royal Society of London A: Mathematical	156	2010
A hybrid control approach to action coordination for mobile robots M Egerstedt, X Hu Automatica 38 (1), 125-130	146	2002
Observability of switched linear systems M Babaali, M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 48-63	130	2004
On the existence of executions of hybrid automata J Lygeros, KH Johansson, S Sastry, M Egerstedt Decision and Control, 1999. Proceedings of the 38th IEEE Conference on 3	126	1999
Simulation of Zeno hybrid automata KH Johansson, J Lygeros, S Sastry, M Egerstedt Decision and Control, 1999. Proceedings of the 38th IEEE Conference on 4	118	1999
Interacting with networks: How does structure relate to controllability in single-leader, consensus networks?  M Egerstedt, S Martini, M Cao, K Camlibel, A Bicchi IEEE Control Systems 32 (4), 66-73	113	2012
Behavior based robotics using hybrid automata M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 103-116	111	2000
A graph-theoretic characterization of controllability for multi-agent systems M Ji, M Egerstedt American Control Conference, 2007. ACC'07, 4588-4593	106	2007
Laplacian sheep: A hybrid, stop-go policy for leader-based containment control G Ferrari-Trecate, M Egerstedt, A Buffa, M Ji International Workshop on Hybrid Systems: Computation and Control, 212-226	104	2006

TITLE	CITED BY	YEAR
Controllability analysis of multi-agent systems using relaxed equitable partitions S Martini, M Egerstedt, A Bicchi International Journal of Systems, Control and Communications 2 (1-3), 100-121	102	2010
Gradient descent approach to optimal mode scheduling in hybrid dynamical systems H Axelsson, Y Wardi, M Egerstedt, El Verriest Journal of Optimization Theory and Applications 136 (2), 167-186	99	2008
Connectivity graphs as models of local interactions A Muhammad, M Egerstedt Applied mathematics and computation 168 (1), 243-269	98	2005
Control theoretic smoothing splines S Sun, MB Egerstedt, CF Martin IEEE Transactions on automatic control 45 (12), 2271-2279	97	2000
Multi-UAV convoy protection: An optimal approach to path planning and coordination XC Ding, AR Rahmani, M Egerstedt IEEE Transactions on Robotics 26 (2), 256-268	92	2010
Sufficient conditions for connectivity maintenance and rendezvous in leader—follower networks T Gustavi, DV Dimarogonas, M Egerstedt, X Hu Automatica 46 (1), 133-139	88	2010
A leader-based containment control strategy for multiple unicycles DV Dimarogonas, M Egerstedt, KJ Kyriakopoulos Decision and Control, 2006 45th IEEE Conference on, 5968-5973	82	2006
Optimal control of switching surfaces in hybrid dynamical systems M Boccadoro, Y Wardi, M Egerstedt, E Verriest Discrete Event Dynamic Systems 15 (4), 433-448	78	2005
Feedback can reduce the specification complexity of motor programs MB Egerstedt, RW Brockett IEEE Transactions on Automatic Control 48 (2), 213-223	75	2003
Connectedness preserving distributed coordination control over dynamic graphs M Ji, M Egerstedt American Control Conference, 2005. Proceedings of the 2005, 93-98	71	2005
Role-assignment in multi-agent coordination M Ji, S Azuma, MB Egerstedt Georgia Institute of Technology	70	2006
Control using higher order Laplacians in network topologies A Muhammad, M Egerstedt Proc. of 17th International Symposium on Mathematical Theory of Networks and	68	2006
Optimal trajectory planning and smoothing splines M Egerstedt, CF Martin Automatica 37 (7), 1057-1064	64	2001

TITLE	CITED BY	YEAR
Distributed formation control while preserving connectedness M Ji, M Egerstedt Decision and Control, 2006 45th IEEE Conference on, 5962-5967	63	2006
On the structural complexity of the motion description language MDLe D Hristu-Varsakelis, M Egerstedt, PS Krishnaprasad Decision and Control, 2003. Proceedings. 42nd IEEE Conference on 4, 3360-3365	60	2003
Multirobot control using time-varying density functions SG Lee, Y Diaz-Mercado, M Egerstedt IEEE Transactions on Robotics 31 (2), 489-493	56	2015
On-line optimization of switched-mode dynamical systems XC Ding, Y Wardi, M Egerstedt IEEE Transactions on Automatic Control 54 (9), 2266-2271	55	2009
Courteous cars H Kress-Gazit, DC Conner, H Choset, AA Rizzi, GJ Pappas IEEE Robotics & Automation Magazine 15 (1)	54	2008
Motion probes for fault detection and recovery in networked control systems M Franceschelli, M Egerstedt, A Giua American Control Conference, 2008, 4358-4363	52	2008
B-splines and control theory H Kano, M Egerstedt, H Nakata, CF Martin Applied mathematics and computation 145 (2-3), 263-288	52	2003
Complex networks: Degrees of control M Egerstedt Nature 473 (7346), 158	50	2011
Optimal control, statistics and path planning CF Martin, S Sun, M Egerstedt Mathematical and Computer Modelling 33 (1-3), 237-253	50	2001
Automatic generation of persistent formations for multi-agent networks under range constraints BS Smith, M Egerstedt, A Howard Mobile Networks and Applications 14 (3), 322-335	49	2009
Control theoretic splines: optimal control, statistics, and path planning M Egerstedt, C Martin Princeton University Press	48	2009
Control of multiagent systems under persistent disturbances T Yucelen, M Egerstedt American Control Conference (ACC), 2012, 5264-5269	47	2012
Coordinated trajectory following for mobile manipulation N Egerstedt, X Hu Robotics and Automation, 2000. Proceedings. ICRA'00. IEEE International	46	2000
Observability and estimation in distributed sensor networks M Ji, M Egerstedt Decision and Control, 2007 46th IEEE Conference on, 4221-4226	45	2007

TITLE	CITED BY	YEAR
Motion description languages for multi-modal control in robotics M Egerstedt Control Problems in Robotics, 75-89	44	2003
Algorithm for optimal mode scheduling in switched systems Y Wardi, M Egerstedt American Control Conference (ACC), 2012, 4546-4551	43	2012
Control of a car-like robot using a virtual vehicle approach M Egerstedt, X Hu, A Stotsky Decision and Control, 1998. Proceedings of the 37th IEEE Conference on 2	43	1998
Distributed frequency control of prosumer-based electric energy systems MH Nazari, Z Costello, MJ Feizollahi, S Grijalva, M Egerstedt IEEE Transactions on Power Systems 29 (6), 2934-2942	42	2014
Hybrid LQ-optimization using dynamic programming V Azhmyakov, R Galvan-Guerra, M Egerstedt American Control Conference, 2009. ACC'09., 3617-3623	42	2009
Optimal mode-switching for hybrid systems with varying initial states H Axelsson, M Boccadoro, M Egerstedt, P Valigi, Y Wardi Nonlinear Analysis: Hybrid Systems 2 (3), 765-772	42	2008
Control of a car-like robot using a dynamic model M Egerstedt, X Hu, A Stotsky Robotics and Automation, 1998. Proceedings. 1998 IEEE International	42	1998
Reactive mobile manipulation using dynamic trajectory tracking P Ogren, N Egerstedt, X Hu Robotics and Automation, 2000. Proceedings. ICRA'00. IEEE International	41	2000
Executive decision support XC Ding, M Powers, M Egerstedt, S Young, T Balch IEEE Robotics & Automation Magazine 16 (2)	40	2009
Controllability decompositions of networked systems through quotient graphs S Martini, M Egerstedt, A Bicchi Decision and Control, 2008. CDC 2008. 47th IEEE Conference on, 5244-5249	40	2008
Learning from examples in unstructured, outdoor environments J Sun, T Mehta, D Wooden, M Powers, J Rehg, T Balch, M Egerstedt Journal of Field Robotics 23 (11-12), 1019-1036	39	2006
A hybrid control architecture for mobile manipulation L Petersson, M Egerstedt, HI Christensen Intelligent Robots and Systems, 1999. IROS'99. Proceedings. 1999 IEEE/RSJ	39	1999
Multi-robot deployment and coordination with embedded graph grammars B Smith, A Howard, JM McNew, J Wang, M Egerstedt Autonomous Robots 26 (1), 79-98	38	2009
Control of epidemics by vaccination E Verriest, F Delmotte, M Egerstedt American Control Conference, 2005. Proceedings of the 2005, 985-990	37	2005

TITLE	CITED BY	YEAR
Multi-process control using queuing theory M Egerstedt, Y Wardi Decision and Control, 2002, Proceedings of the 41st IEEE Conference on 2	37	2002
Autonomous formation switching for multiple, mobile robots H Axelsson, A Muhammad, M Egerstedt IFAC Proceedings Volumes 36 (6), 117-122	36	2003
Behavior based robotics using regularized hybrid automata M Egerstedt, K Johansson, J Lygeros, S Sastry Decision and Control, 1999. Proceedings of the 38th IEEE Conference on 4	35	1999
Solving coverage problems with embedded graph grammars JM McNew, E Klavins, M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 413-427	33	2007
System and methods for data-driven control of manufacturing processes LG Barajas, MB Egerstedt, A Goldstein, EW Kamen US Patent 7,171,897	33	2007
Differentially private cloud-based multi-agent optimization with constraints MT Hale, M Egerstedty American Control Conference (ACC), 2015, 1235-1240	31	2015
Control with delayed and limited information: A first look E Verriest, M Egerstedt Decision and Control, 2002, Proceedings of the 41st IEEE Conference on 2	31	2002
Human-in-the-loop: MPC for shared control of a quadruped rescue robot R Chipalkatty, H Daepp, M Egerstedt, W Book Intelligent Robots and Systems (IROS), 2011 IEEE/RSJ International	30	2011
Optimal impulsive control for point delay systems with refractory period El Verriest, F Delmotte, M Egerstedt Proceedings of the 5-th IFAC Workshop on Time Delay Systems, Leuven, Belgium	30	2004
Motion programs for puppet choreography and control M Egerstedt, T Murphey, J Ludwig International Workshop on Hybrid Systems: Computation and Control, 190-202	29	2007
Smoothing spline curves and surfaces for sampled data H Fujioka, H Kano, M Egerstedt, CF Martin Int. J. of Innovative Computing, Information and Control 1 (3), 429-449	29	2005
A direct algebraic approach to observer design under switching measurement equations M Babaali, M Egerstedt, EW Kamen IEEE transactions on automatic control 49 (11), 2044-2049	29	2004
Style based robotic motion A LaViers, M Egerstedt American Control Conference (ACC), 2012, 4327-4332	28	2012
Automatic generation of balletic motions A LaViers, M Egerstedt, Y Chen, C Belta Cyber-Physical Systems (ICCPS), 2011 IEEE/ACM International Conference on, 13-21	28	2011

TITLE	CITED BY	YEAR
Oriented visibility graphs: Low-complexity planning in real-time environments D Wooden, M Egerstedt Robotics and Automation, 2006. ICRA 2006. Proceedings 2006 IEEE	28	2006
Control barrier certificates for safe swarm behavior U Borrmann, L Wang, AD Ames, M Egerstedt IFAC-PapersOnLine 48 (27), 68-73	27	2015
Continuous-time proportional-integral distributed optimisation for networked systems G Droge, H Kawashima, MB Egerstedt Journal of Control and Decision 1 (3), 191-213	27	2014
Controllability Characterizations of Leader-Based Swarm Interactions. JP de la Croix, M Egerstedt AAAI Fall Symposium: Human Control of Bioinspired Swarms	27	2012
A hybrid Bellman equation for bimodal systems P Caines, M Egerstedt, R Malhame, A Schöllig International Workshop on Hybrid Systems: Computation and Control, 656-659	27	2007
Flipping the controls classroom around a MOOC JP de la Croix, M Egerstedt American Control Conference (ACC), 2014, 2557-2562	26	2014
Less is more: Mixed-initiative model-predictive control with human inputs R Chipalkatty, G Droge, MB Egerstedt IEEE Transactions on Robotics 29 (3), 695-703	26	2013
Experience from the DARPA urban challenge C Rouff, M Hinchey Springer Publishing Company, Incorporated	26	2011
What are the ants doing? vision-based tracking and reconstruction of control programs  M Egerstedt, T Balch, F Dellaert, F Delmotte, Z Khan IEEE International Conference on Robotics and Automation 4, 4182	26	2005
Optimal control of switching times in hybrid systems M Egerstedt, Y Wardi, H Axelsson 9th IEEE International Conference on Methods and Models in Automation and	26	2003
The GRITSBot in its natural habitat-a multi-robot testbed D Pickem, M Lee, M Egerstedt Robotics and Automation (ICRA), 2015 IEEE International Conference on, 4062-4067	25	2015
Robust graph topologies for networked systems W Abbas, M Egerstedt IFAC Proceedings Volumes 45 (26), 85-90	25	2012
Automatic sequencing of ballet poses A LaViers, Y Chen, C Belta, M Egerstedt IEEE Robotics & Automation Magazine 18 (3), 87-95	25	2011

TITLE	CITED BY	YEAR
Curve tracking control for autonomous vehicles with rigidly mounted range sensors  J Kim, F Zhang, M Egerstedt  Journal of Intelligent and Robotic Systems 56 (1-2), 177-197	25	2009
Design, control, and applications of real-world multirobot systems [from the guest editors] C Kitts, M Egerstedt IEEE Robotics & Automation Magazine 15 (1), 8-8	e 25	2008
Optimal multi-UAV convoy protection XC Ding, A Rahmani, M Egerstedt Robot Communication and Coordination, 2009. ROBOCOMM'09. Second	24	2009
Hybrid systems: computation and control J Hespanha, A Tiwari Springer Berlin/Heidelberg.	24	2006
Distributed reactive power sharing control for microgrids with event- triggered communication Y Fan, G Hu, M Egerstedt IEEE Transactions on Control Systems Technology 25 (1), 118-128	23	2017
Switched-mode systems: gradient-descent algorithms with Armijo step sizes Y Wardi, M Egerstedt, M Hale Discrete Event Dynamic Systems 25 (4), 571-599	23	2015
Optimization of switched-mode systems with switching costs XC Ding, Y Wardi, D Taylor, M Egerstedt American Control Conference, 2008, 3965-3970	23	2008
Optimal timing control of switched linear systems based on partial information M Egerstedt, S Azuma, Y Wardi Nonlinear Analysis: Theory, Methods & Applications 65 (9), 1736-1750	23	2006
An optimal control approach to mode generation in hybrid systems TR Mehta, M Egerstedt Nonlinear Analysis: Theory, Methods & Applications 65 (5), 963-983	23	2006
Special section on symbolic methods for complex control systems MB Egerstedt, E Frazzoli, G Pappas Georgia Institute of Technology	23	2006
Asymptotic observers for discrete-time switched linear systems M Babaali, M Egerstedt IFAC Proceedings Volumes 38 (1), 1269-1274	23	2005
A tight lower bound on the controllability of networks with multiple leaders AY Yazicioglu, W Abbas, M Egerstedt Decision and Control (CDC), 2012 IEEE 51st Annual Conference on, 1978-1983	22	2012
Design of optimal switching surfaces for switched autonomous systems A Schild, XC Ding, M Egerstedt, J Lunze Decision and Control, 2009 held jointly with the 2009 28th Chinese Control	22	2009

TITLE	CITED BY	YEAR
A hybrid bellman equation for systems with regional dynamics A Schollig, PE Caines, M Egerstedt, R Malhamé Decision and Control, 2007 46th IEEE Conference on, 3393-3398	22	2007
On the structural complexity of multi-agent robot formations A Muhammad, M Egerstedt American Control Conference, 2004. Proceedings of the 2004 6, 4957-4962	22	2004
Pathwise observability and controllability are decidable M Babaali, M Egerstedt Decision and Control, 2003. Proceedings. 42nd IEEE Conference on 6, 5771-5776	22	2003
Leader selection via the manipulability of leader-follower networks H Kawashima, M Egerstedt American Control Conference (ACC), 2012, 6053-6058	21	2012
The ballet automaton: A formal model for human motion A LaViers, M Egerstedt American Control Conference (ACC), 2011, 3837-3842	21	2011
On the observability of piecewise linear systems M Babaali, M Egerstedt Decision and Control, 2004. CDC. 43rd IEEE Conference on 1, 26-31	21	2004
Conflict resolution for autonomous vehicles: A case study in hierarchical control design MB Egerstedt, CF Martin Georgia Institute of Technology	21	2002
Safe, remote-access swarm robotics research on the robotarium D Pickem, L Wang, P Glotfelter, Y Diaz-Mercado, M Mote, A Ames, arXiv preprint arXiv:1604.00640	20	2016
Humanoid robot teleoperation for tasks with power tools R O'Flaherty, P Vieira, MX Grey, P Oh, A Bobick, M Egerstedt, M Stilman Technologies for Practical Robot applications (TePRa), 2013 ieee	20	2013
Controlled coverage using time-varying density functions SG Lee, M Egerstedt IFAC Proceedings Volumes 46 (27), 220-226	20	2013
A controlled-precision algorithm for mode-switching optimization Y Wardi, M Egerstedt, P Twu Decision and Control (CDC), 2012 IEEE 51st Annual Conference on, 713-718	20	2012
A provably complete exploration strategy by constructing Voronoi diagram J Kim, F Zhang, M Egerstedt Autonomous Robots 29 (3-4), 367-380	<b>S</b> 20	2010
Control Theoretic Splines M Egerstedt, C Martin Princeton University Press	20	2010
Stencil printing process modeling and control using statistical neural networks LG Barajas, MB Egerstedt, EW Kamen, A Goldstein IEEE Transactions on Electronics Packaging Manufacturing 31 (1), 9-18	20	2008

TITLE	CITED BY	YEAR
Algorithm for switching-time optimization in hybrid dynamical systems H Axelsson, M Egerstedt, Y Wardi, G Vachtsevanos Intelligent Control, 2005. Proceedings of the 2005 IEEE International	20	2005
Statistical estimates for generalized splines M Egerstedt, C Martin ESAIM: Control, Optimisation and Calculus of Variations 9, 553-562	20	2003
Probabilistic lifetime maximization of sensor networks H Jaleel, A Rahmani, M Egerstedt IEEE Transactions on Automatic Control 58 (2), 534-539	19	2013
Path planning and flight controller scheduling for an autonomous helicopte M Egerstedt, TJ Koo, F Hoffmann, S Sastry International Workshop on Hybrid Systems: Computation and Control, 91-102	r 19 *	1999
Controls for the masses [focus on education] M Egerstedt IEEE Control Systems 33 (4), 40-44	18	2013
A game theoretic approach to distributed coverage of graphs by heterogeneous mobile agents AY Yazıcıoğlu, M Egerstedt, JS Shamma IFAC Proceedings Volumes 46 (27), 309-315	18	2013
Optimal smoothing spline curves and contour synthesis H Kano, H Fujioka, M Egerstedt, CF Martin IFAC Proceedings Volumes 38 (1), 297-302	18	2005
Optimal control of switching surfaces Y Wardi, M Egerstedt, M Boccadoro, E Verriest Decision and Control, 2004. CDC. 43rd IEEE Conference on 2, 1854-1859	18	2004
Optimal control and monotone smoothing splines M Egerstedt, C Martin New Trends in Nonlinear Dynamics and Control and their Applications, 279-294	18	2003
Multi-objective compositions for collision-free connectivity maintenance in teams of mobile robots L Wang, AD Ames, M Egerstedt Decision and Control (CDC), 2016 IEEE 55th Conference on, 2659-2664	17	2016
Distribution of agents in heterogeneous multiagent systems W Abbas, M Egerstedt Decision and Control and European Control Conference (CDC-ECC), 2011 50th	17	2011
Adaptive look-ahead for robotic navigation in unknown environments G Droge, M Egerstedt Intelligent Robots and Systems (IROS), 2011 IEEE/RSJ International	17	2011
Observability and controllability verification in multi-agent systems through decentralized Laplacian spectrum estimation M Franceschelli, S Martini, M Egerstedt, A Bicchi, A Giua Decision and Control (CDC), 2010 49th IEEE Conference on, 5775-5780	17	2010

TITLE	CITED BY	YEAR
Human-in-the-loop: Terminal constraint receding horizon control with human inputs R Chipalkatty, M Egerstedt Robotics and Automation (ICRA), 2010 IEEE International Conference on, 2712-2717	17	2010
Linguistic control of mobile robots M Egerstedt Intelligent Robots and Systems, 2001. Proceedings. 2001 IEEE/RSJ	17	2001
Motion planning and control of mobile robots M Egerstedt Matematik	17	2000
Toward optimal control of switched linear systems  M Egerstedt, P Ogren, O Shakernia, J Lygeros  Decision and Control, 2000. Proceedings of the 39th IEEE Conference on 1	17	2000
Automatic formation deployment of decentralized heterogeneous multi- robot networks with limited sensing capabilities BS Smith, J Wang, M Egerstedt, A Howard Robotics and Automation, 2009. ICRA'09. IEEE International Conference on	16	2009
On the number of leaders needed to ensure network connectivity DV Dimarogonas, T Gustavi, M Egerstedt, X Hu Decision and Control, 2008. CDC 2008. 47th IEEE Conference on, 1797-1802	16	2008
On-line optimization of switched-mode systems: Algorithms and convergence properties Y Wardi, XC Ding, M Egerstedt, S Azuma Decision and Control, 2007 46th IEEE Conference on, 5005-5010	16	2007
A modular, hybrid system architecture for autonomous, urban driving D Wooden, M Powers, M Egerstedt, H Christensen, T Balch Journal of Aerospace Computing, Information, and Communication 4 (12), 1047-1058	16	2007
Optimal approximation of functions Y Zhou, M Ergerstedt, C Martin Communications in Information and Systems 1 (1), 101-112	16	2001
The Robotarium: A remotely accessible swarm robotics research testbed D Pickem, P Glotfelter, L Wang, M Mote, A Ames, E Feron, M Egerstedt Robotics and Automation (ICRA), 2017 IEEE International Conference on, 1699-1706	15	2017
Haptic interactions with multi-robot swarms using manipulability T Setter, A Fouraker, H Kawashima, M Egerstedt Journal of Human-Robot Interaction 4 (1), 60–74	15	2015
Minimizing mobility and communication energy in robotic networks: An optimal control approach H Jaleel, Y Wardi, M Egerstedt American Control Conference (ACC), 2014, 2662-2667	15	2014
Multi-process control software for hubo2 plus robot MX Grey, N Dantam, DM Lofaro, A Bobick, M Egerstedt, P Oh, M Stilman Technologies for Practical Robot Applications (TePRA), 2013 IEEE	15	2013

TITLE	CITED BY	YEAR
Distributed autonomous robotic systems A Martinoli, F Mondada, G Mermoud, N Correll, M Egerstedt, A Hsieh, Springer Tracts in Advanced Robotics, Springer-Verlag	15 *	2013
Hybrid systems tools for compiling controllers for cyber-physical systems P Martin, MB Egerstedt Discrete Event Dynamic Systems 22 (1), 101-119	15	2012
Network discovery: An estimation based approach G Chowdhary, M Egerstedt, EN Johnson American Control Conference (ACC), 2011, 1076-1081	15	2011
Biologically inspired confinement of multi-robot systems MA Haque, AR Rahmani, MB Egerstedt International Journal of Bio-Inspired Computation 3 (4), 213-224	15	2011
Controllability of homogeneous single-leader networks P Twu, M Egerstedt, S Martini Decision and Control (CDC), 2010 49th IEEE Conference on, 5869-5874	15	2010
Continuity properties of nonlinear affine control systems: applications to hybrid and sliding mode dynamics V Azhmyakov, M Egerstedt, L Fridman, A Poznyak IFAC Proceedings Volumes 42 (17), 204-209	15	2009
Periodic smoothing splines H Kano, M Egerstedt, H Fujioka, S Takahashi, C Martin Automatica 44 (1), 185-192	15	2008
Graph-theoretic methods for multi-agent coordination MB Egerstedt Georgia Institute of Technology	15	2007
On observability and reachability in a class of discrete-time switched linear systems  M Egerstedt, M Babaali  American Control Conference, 2005. Proceedings of the 2005, 1179-1180	r 15	2005
Deformable-medium affordances for interacting with multi-robot systems M Diana, JP de la Croix, M Egerstedt Intelligent Robots and Systems (IROS), 2013 IEEE/RSJ International	14	2013
Distributed power allocation in prosumer networks T Ramachandran, Z Costello, P Kingston, S Grijalva, M Egerstedt IFAC Proceedings Volumes 45 (26), 156-161	14	2012
Constructing and implementing motion programs for robotic marionettes P Martin, E Johnson, T Murphey, M Egerstedt IEEE Transactions on Automatic Control 56 (4), 902-907	14	2011
On-line optimal timing control of switched systems Y Wardi, P Twu, M Egerstedt Decision and Control (CDC), 2010 49th IEEE Conference on, 2137-2142	14	2010
Timing control of switched systems with applications to robotic marionettes P Martin, MB Egerstedt Discrete Event Dynamic Systems 20 (2), 233-248	5 14	2010

TITLE	CITED BY	YEAR
Automatic deployment and formation control of decentralized multi-agent networks BS Smith, M Egerstedt, A Howard Robotics and Automation, 2008. ICRA 2008. IEEE International Conference on	14	2008
Decentralized formation selection mechanisms inspired by foraging bottlenose dolphins MA Haque, MB Egerstedt Georgia Institute of Technology	14	2008
On time: Clocks, chronometers, and open-loop control SM LaValle, MB Egerstedt Decision and Control, 2007 46th IEEE Conference on, 1916-1922	14	2007
Output-based optimal timing control of switched systems S Azuma, M Egerstedt, Y Wardi International Workshop on Hybrid Systems: Computation and Control, 64-78	14	2006
Hilbert space methods for control theoretic splines: A unified treatment Y Zhou, M Egerstedt, C Martin Communications in Information & Systems 6 (1), 55-81	14	2006
Decentralized coordination with local interactions: Some new directions A Muhammad, M Egerstedt Cooperative Control, 153-170	14	2005
Trajectory planning in the infinity norm for linear control systems M Egerstedt, CF Martin International Journal of Control 72 (13), 1139-1146	14	1999
Path planning and robust tracking for a car-like robot M Egerstedt, X Hu, H Rehbinder, A Stotsky Proceedings of the 5th symposium on intelligent robotic systems, 237-243	14	1997
Balanced deployment of multiple robots using a modified Kuramoto model Z Xu, M Egerstedt, G Droge, K Schilling American Control Conference (ACC), 2013, 6138-6144	13	2013
Index-free multi-agent systems: An eulerian approach P Kingston, M Egerstedt IFAC Proceedings Volumes 43 (19), 215-220	13	2010
Real-time optimal feedback control of switched autonomous systems XC Ding, A Schild, M Egerstedt, J Lunze IFAC Proceedings Volumes 42 (17), 108-113	13	2009
Simultaneous cooperative exploration and networking based on Voronoi diagrams J Kim, F Zhang, M Egerstedt IFAC Proceedings Volumes 42 (22), 1-6	13	2009
Persistent formation control of multi-robot networks BS Smith, J Wang, MB Egerstedt Decision and Control, 2008. CDC 2008. 47th IEEE Conference on, 471-476	13	2008

TITLE	CITED BY	YEAR
Optimal timing control of interconnected, switched systems with applications to robotic marionettes P Martin, M Egerstedt Discrete Event Systems, 2008. WODES 2008. 9th International Workshop on, 156-161	13	2008
Leader-based multi-agent coordination through hybrid optimal control S Björkenstam, M Ji, MB Egerstedt, CF Martin Georgia Institute of Technology	13	2006
A provably convergent algorithm for transition-time optimization in switche systems H Axelsson, Y Wardi, M Egerstedt, E Verriest Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC'05	d 13	2005
An observer for linear systems with randomly-switching measurement equations M Babaali, M Egerstedt, EW Kamen American Control Conference, 2003. Proceedings of the 2003 3, 1879-1884	13	2003
On the specification complexity of linguistic control procedures MB Egerstedt Georgia Institute of Technology	13	2002
Distributed dynamic density coverage for human-swarm interactions Y Diaz-Mercado, SG Lee, M Egerstedt American Control Conference (ACC), 2015, 353-358	12	2015
Multilevel coalition formation strategy for suppression of enemy air defenses missions M Haque, M Egerstedt, A Rahmani Journal of Aerospace Information Systems 10 (6), 287-296	12	2013
Leader selection and network assembly for controllability of leader-followenetworks AY Yazicioğlu, M Egerstedt American Control Conference (ACC), 2013, 3802-3807	er 12	2013
Approximate manipulability of leader-follower networks H Kawashima, M Egerstedt Decision and Control and European Control Conference (CDC-ECC), 2011 50th	12	2011
Switched linear systems: Stability and the convergence of random products B Hanlon, N Wang, MB Egerstedt, C Martin Georgia Institute of Technology	12	2011
Geometric foraging strategies in multi-agent systems based on biological models M Haque, A Rahmani, M Egerstedt Decision and Control (CDC), 2010 49th IEEE Conference on, 6040-6045	12	2010
On the LQ-based optimization techniques for impulsive hybrid control systems V Azhmyakov, R Galvan-Guerra, M Egerstedt American Control Conference (ACC), 2010, 129-135	12	2010

TITLE	CITED BY	YEAR
Power-aware sensor coverage: An optimal control approach P Martin, R Galvan-Guerra, MB Egerstedt, V Azhmyakov Georgia Institute of Technology	12	2010
An exploration strategy by constructing Voronoi Diagrams with provable completeness J Kim, F Zhang, M Egerstedt Decision and Control, 2009 held jointly with the 2009 28th Chinese Control	12	2009
An optimal timing approach to controlling multiple UAVs XC Ding, M Powers, M Egerstedt, R Young American Control Conference, 2009. ACC'09., 5374-5379	12	2009
Optimization of multi-agent motion programs with applications to robotic marionettes P Martin, M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 262-275	12	2009
A hybrid, multi-agent model of foraging bottlenose dolphins M Haque, A Rahmani, M Egerstedt IFAC Proceedings Volumes 42 (17), 262-267	12	2009
Hierarchical containment control in heterogeneous mobile networks M Ji, MB Egerstedt, G Ferrari-Trecate, A Buffa Georgia Institute of Technology	12	2006
Nonpathological sampling of switched linear systems M Babaali, M Egerstedt IEEE transactions on automatic control 50 (12), 2102-2105	12	2005
Sliding mode control of a car-like mobile robot using single-track dynamic model A Stotsky, X Hu Variable structure systems, sliding mode and nonlinear control, 181-191	12	1999
Trust-based interactions in teams of mobile agents T Setter, A Gasparri, M Egerstedt American Control Conference (ACC), 2016, 6158-6163	11	2016
Deploying Robots With Two Sensors in K1, 6-Free Graphs W Abbas, M Egerstedt, CH Liu, R Thomas, P Whalen Journal of Graph Theory 82 (3), 236-252	11	2016
Correct-by-construction control synthesis for multi-robot mixing Y Diaz-Mercado, A Jones, C Belta, M Egerstedt Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, 221-226	11	2015
Heterogeneous multi-robot routing S Chopra, M Egerstedt American Control Conference (ACC), 2014, 5390-5395	11	2014
Optimization of multiagent systems with increasing state dimensions: hybrid LQ approach R Galvan-Guerra, V Azhmyakov, M Egerstedt American Control Conference (ACC), 2011, 881-887	11	2011

TITLE	CITED BY	YEAR
Approximability of nonlinear affine control systems V Azhmyakov, M Egerstedt, L Fridman, A Poznyak Nonlinear Analysis: Hybrid Systems 5 (2), 275-288	11	2011
Trajectory planning for linear control systems with generalized splines M Egerstedt, CF Martin Proceedings of the mathematical theory of networks and systems, Padova, Italy	11	1998
Safety Barrier certificates for collisions-free multirobot systems L Wang, AD Ames, M Egerstedt IEEE Transactions on Robotics 33 (3), 661-674	10	2017
A control lyapunov function approach to human-swarm interactions JP de la Croix, M Egerstedt American Control Conference (ACC), 2015, 4368-4373	10	2015
Cloud-based optimization: A quasi-decentralized approach to multi-agent coordination MT Hale, M Egerstedt Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on, 6635-6640	10	2014
Shortest paths through 3-dimensional cluttered environments J Lu, Y Diaz-Mercado, M Egerstedt, H Zhou, SN Chow Robotics and Automation (ICRA), 2014 IEEE International Conference on, 6579-6585	10	2014
Interacting with networks of mobile agents M Egerstedt, JP de la Croix, H Kawashima, P Kingston Large-Scale Networks in Engineering and Life Sciences, 199-224	10	2014
Hierarchical assembly of leader-asymmetric, single-leader networks W Abbas, M Egerstedt American Control Conference (ACC), 2011, 1082-1087	10	2011
Adaptive time horizon optimization in model predictive control G Droge, M Egerstedt American Control Conference (ACC), 2011, 1843-1848	10	2011
Controllability of networked systems M Egerstedt Mathematical Theory of Networks and Systems	10	2010
Constrained invariant motions for networked multi-agent systems M Franceschelli, M Egerstedt, A Giua, C Mahulea American Control Conference, 2009. ACC'09., 5749-5754	10	2009
First-order, networked control models of swarming silkworm moths MA Haque, M Egerstedt, CF Martin American Control Conference, 2008, 3798-3803	10	2008
Control-driven mapping and planning D Wooden, M Powersy, DC MacKenziex, T Balchy, M Egerstedt Intelligent Robots and Systems, 2007. IROS 2007. IEEE/RSJ International	10	2007
Optimal control of multi-dimensional, hybrid ice-skater model TR Mehta, D Yeung, El Verriest, M Egerstedt American Control Conference, 2007. ACC'07, 2787-2792	10	2007

TITLE	CITED BY	YEAR
Choreography for marionettes: Imitation, planning, and control TD Murphey, MB Egerstedt Georgia Institute of Technology	10	2007
Control theoretic splines with deterministic and random data Y Zhou, M Egerstedt, C Martin Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC'05	10	2005
Transition-time optimization for switched systems H Axelsson, Y Wardi, M Egerstedt IFAC Proceedings volumes 38 (1), 453-458	10	2005
A note on the connection between Bezier curves and linear optimal contro MB Egerstedt, CF Martin IEEE transactions on automatic control 49 (10), 1728-1732	l 10	2004
Some complexity aspects of the control of mobile robots M Egerstedt American Control Conference, 2002. Proceedings of the 2002 1, 710-715	10	2002
A hybrid control approach to action coordination for mobile robots M Egerstedt, X Hu, A Stotsky IFAC Proceedings Volumes 32 (2), 617-622	10	1999
Formation of robust multi-agent networks through self-organizing random regular graphs AY Yazıcıoğlu, M Egerstedt, JS Shamma IEEE Transactions on Network Science and Engineering 2 (4), 139-151	9	2015
Team-level properties for haptic human-swarm interactions T Setter, H Kawashima, M Egerstedt American Control Conference (ACC), 2015, 453-458	9	2015
Manipulability of leader–follower networks with the rigid-link approximation H Kawashima, M Egerstedt Automatica 50 (3), 695-706	9	2014
Style-based robotic motion in contemporary dance performance A LaViers, L Teague, M Egerstedt Controls and Art, 205-229	9	2014
Distributed parameterized model predictive control of networked multi- agent systems G Droge, M Egerstedt American Control Conference (ACC), 2013, 1332-1337	9	2013
Optimal switching control of a step-down dc-dc converter H Kawashima, Y Wardi, D Taylor, M Egerstedt American Control Conference (ACC), 2012, 1454-1459	9	2012
Rendezvous with multiple, intermittent leaders G Notarstefano, M Egerstedt, M Haque Decision and Control, 2009 held jointly with the 2009 28th Chinese Control	9	2009
Coalition formation in multi-agent systems based on bottlenose dolphin alliances MA Haque, M Egerstedt American Control Conference, 2009. ACC'09., 3280-3285	9	2009

TITLE	CITED BY	YEAR
Multi-modal control using adaptive motion description languages TR Mehta, M Egerstedt Automatica 44 (7), 1912-1917	9	2008
A software tool for hybrid control F Delmotte, TR Mehta, M Egerstedt IEEE robotics & automation magazine 15 (1)	9	2008
Reconstruction of low-complexity control programs from data F Delmotte, M Egerstedt Decision and Control, 2004. CDC. 43rd IEEE Conference on 2, 1460-1465	9	2004
Optimal control of switching surfaces in hybrid dynamic systems M Boccadoro, M Egerstedt, Y Wardi IFAC Proceedings Volumes 37 (18), 129-134	9	2004
Observability and policy optimization for mobile robots M Egerstedt, D Hristu-Varsakelis Decision and Control, 2002, Proceedings of the 41st IEEE Conference on 4	9	2002
On the regularization of Zeno hybrid automata M Egerstedt, KH Johansson, S Sastry, J Lygeros Systems and Control Letters 38, 141-150	9	1999
Graph distances and controllability of networks AY Yazıcıoğlu, W Abbas, M Egerstedt IEEE Transactions on Automatic Control 61 (12), 4125-4130	8	2016
Cloud-based centralized/decentralized multi-agent optimization with communication delays MT Hale, A Nedić, M Egerstedt Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, 700-705	8	2015
Spatio-temporal multi-robot routing S Chopra, M Egerstedt Automatica 60, 173-181	8	2015
Optimal control of switched dynamical systems under dwell time constraints U Ali, M Egerstedt Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on, 4673-4678	8	2014
A measure of heterogeneity in multi-agent systems P Twu, Y Mostofi, M Egerstedt American Control Conference (ACC), 2014, 3972-3977	8	2014
Optimal trajectory generation for next generation flight management systems Y Diaz-Mercado, SG Lee, M Egerstedt, SY Young Digital Avionics Systems Conference (DASC), 2013 IEEE/AIAA 32nd, 3C5-1-3C5-10	8	2013
Responsiveness and manipulability of formations of multi-robot networks H Kawashima, G Zhu, J Hu, M Egerstedt Decision and Control (CDC), 2012 IEEE 51st Annual Conference on, 4622-4628	8	2012
Musical abstractions in distributed multi-robot systems A Albin, G Weinberg, M Egerstedt Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International	8	2012

TITLE	CITED BY	YEAR
Securing multiagent systems against a sequence of intruder attacks W Abbas, M Egerstedt American Control Conference (ACC), 2012, 4161-4166	8	2012
Dynamic chess: Strategic planning for robot motion T Kunz, P Kingston, M Stilman, M Egerstedt Robotics and Automation (ICRA), 2011 IEEE International Conference on, 3796-3803	8	2011
Biologically inspired coalition formation of multi-agent systems M Haque, A Rahmani, M Egerstedt Proceedings of the 9th International Conference on Autonomous Agents and	8	2010
Mode reconstruction for source coding and multi-modal control A Austin, M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 36-49	8	2003
Formation control under limited sensory range constraints MB Egerstedt, M Abubakr, X Hu Georgia Institute of Technology	8	2002
Monotone smoothing splines M Egerstedt, CF Martin Proceedings of the Mathematical Theory of Networks and Systems, 1020-1028	8	2000
Safety barrier certificates for heterogeneous multi-robot systems L Wang, A Ames, M Egerstedt American Control Conference (ACC), 2016, 5213-5218	7	2016
Altering UAV flight path by threatening collision P Pierpaoli, M Egerstedt, A Rahmani Digital Avionics Systems Conference (DASC), 2015 IEEE/AIAA 34th, 4A4-1-4A4-10	7	2015
The degree of nonholonomy in distributed computations Z Costello, M Egerstedt Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on, 6092-6098	7	2014
Efficient foraging strategies in multi-agent systems through curve evolutions M Haque, A Rahmani, M Egerstedt, A Yezzi IEEE Transactions on Automatic Control 59 (4), 1036-1041	7	2014
Multi-robot routing for servicing spatio-temporal requests: A musically inspired problem S Chopra, M Egerstedt IFAC Proceedings Volumes 45 (9), 319-324	7	2012
Distributed-infrastructure multi-robot routing using a Helmholtz-Hodge decomposition P Kingston, M Egerstedt Decision and Control and European Control Conference (CDC-ECC), 2011 50th	7	2011
Duty cycle scheduling in dynamic sensor networks for controlling event detection probabilities H Jaleel, A Rahmani, M Egerstedt American Control Conference (ACC), 2011, 3233-3238	7	2011

TITLE	CITED BY	YEAR
A switching active sensing strategy to maintain observability for vision-based formation control GL Mariottini, S Martini, MB Egerstedt Robotics and Automation, 2009. ICRA'09. IEEE International Conference on	7	2009
Optimal impulsive control of delay systems F Delmotte, El Verriest, M Egerstedt ESAIM: Control, Optimisation and Calculus of Variations 14 (4), 767-779	7	2008
Optimal membership functions for multi-modal control TR Mehta, M Egerstedt American Control Conference, 2006, 6 pp.	7	2006
Applications of connectivity graph processes in networked sensing and control A Muhammad, M Ji, M Egerstedt Networked Embedded Sensing and Control, 69-82	7	2006
Beyond the construction of optimal switching surfaces for autonomous hybrid systems M Boccadoro, M Egerstedt, P Valigi, Y Wardi Analysis and Design of Hybrid Systems 2006, 101-105	7	2006
Motion alphabet augmentation based on past experiences TR Mehta, F Delmotte, M Egerstedt Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC'05	7	2005
Reactive robot navigation using optimal timing control H Axelsson, M Egerstedt, Y Wardi American Control Conference, 2005. Proceedings of the 2005, 4929-4934	7	2005
Positivstellensatz certificates for non-feasibility of connectivity graphs in multi-agent coordination A Muhammad, M Egerstedt IFAC Proceedings Volumes 38 (1), 217-222	7	2005
Topology and complexity of formations A Muhammad, MB Egerstedt Georgia Institute of Technology	7	2003
How hard is it to control switched systems?  M Egerstedt, VD Blondel  American Control Conference, 2002. Proceedings of the 2002 3, 1869-1873	7	2002
Optimal pesticide scheduling in precision agriculture A Jones, U Ali, M Egerstedt Cyber-Physical Systems (ICCPS), 2016 ACM/IEEE 7th International Conference	6	2016
Set-valued protocols for almost consensus of multiagent systems with uncertain interagent communication T Sadikhov, WM Haddad, R Goebel, M Egerstedt American Control Conference (ACC), 2014, 4002-4007	6	2014
Controls and Art: Inquiries at the Intersection of the Subjective and the Objective A LaViers, M Egerstedt Springer Science & Business Media	6	2014

TITLE	CITED BY	YEAR
Energy-efficient data collection in heterogeneous wireless sensor and actornetworks W Abbas, H Jaleel, M Egerstedt Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on, 4164-4169	or 6	2013
Scaling the size of a multiagent formation via distributed feedback S Coogan, M Arcak, M Egerstedt Decision and Control and European Control Conference (CDC-ECC), 2011 50th	6	2011
Distributed scheduling for air traffic throughput maximization during the terminal phase of flight R Chipalkatty, P Twu, A Rahmani, M Egerstedt Decision and Control (CDC), 2010 49th IEEE Conference on, 1195-1200	6	2010
Multi-pendulum synchronization using constrained agreement protocols R Chipalkatty, M Egerstedt, SI Azuma Robot Communication and Coordination, 2009. ROBOCOMM'09. Second	6	2009
Learning multi-modal control programs TR Mehta, M Egerstedt International Workshop on Hybrid Systems: Computation and Control, 466-479	6	2005
Control of autonomous mobile robots M Egerstedt Handbook of Networked and Embedded Control Systems, 767-778	6	2005
Pathwise observability through arithmetic progressions and non- pathological sampling M Babaali, M Egerstedt American Control Conference, 2004. Proceedings of the 2004 6, 5824-5828	6	2004
Data-driven generation of low-complexity control programs F Delmotte, MB Egerstedt, A Austin Georgia Institute of Technology	6	2004
Communication-free distributed coverage for networked systems AY Yazıcıoğlu, M Egerstedt, JS Shamma IEEE Transactions on Control of Network Systems 4 (3), 499-510	5	2017
Overcoming communication delays in distributed frequency regulation T Ramachandran, MH Nazari, S Grijalva, M Egerstedt IEEE Transactions on Power Systems 31 (4), 2965-2973	5	2016
Hybrid control of multi-robot systems using embedded graph grammars M Guo, M Egerstedt, DV Dimarogonas Robotics and Automation (ICRA), 2016 IEEE International Conference on, 5242-5247	5	2016
Temporal heterogeneity and the value of slowness in robotic systems RC Arkin, M Egerstedt Robotics and Biomimetics (ROBIO), 2015 IEEE International Conference on	5	2015
From global, finite-time, linear computations to local, edge-based interaction rules Z Costello, M Egerstedt IEEE Transactions on Automatic Control 60 (8), 2237-2241	5	2015

TITLE	CITED BY	YEAR
Proportional integral distributed optimization for dynamic network topologies G Droge, M Egerstedt American Control Conference (ACC), 2014, 3621-3626	5	2014
The Inaugural Issue of the IEEE Transactions on Control of Network Systems M Egerstedt IEEE Transactions on Control of Network Systems 1 (1), 1-3	5	2014
Multi-robot mixing using braids Y Diaz-Mercado, M Egerstedt Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on, 2001-2005	5	2013
Complete heterogeneous self-reconfiguration: Deadlock avoidance using hole-free assemblies D Pickem, M Egerstedt, JS Shamma IFAC Proceedings Volumes 46 (27), 404-410	5	2013
Kinematics and Inverse Kinematics for the Humanoid Robot HUBO2+ R O'Flaherty, P Vieira, M Grey, P Oh, A Bobick, M Egerstedt, M Stilman Georgia Institute of Technology	5	2013
Behavior-based switch-time mpc for mobile robots G Droge, P Kingston, M Egerstedt Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International	5	2012
Merging and spacing of heterogeneous aircraft in support of NextGen R Chipalkatty, P Twu, AR Rahmani, M Egerstedt Journal of Guidance, Control, and Dynamics 35 (5), 1637-1646	5	2012
Towards power-aware rendezvous H Jaleel, S Bopardikar, M Egerstedt Decision and Control and European Control Conference (CDC-ECC), 2011 50th	5	2011
Time and output warping of control systems: Comparing and imitating motions P Kingston, M Egerstedt Automatica 47 (8), 1580-1588	5	2011
A hardware testbed for multi-uav collaborative ground convoy protection in dynamic environments P Twu, R Chipalkatty, JP de la Croix, A Rahmani, T Ramachandran, AIAA Modeling and Simulation Technologies Conference, 6665	า 5	2011
Biologically motivated shape optimization of foraging fronts M Haque, A Rahmani, M Egerstedt, A Yezzi American Control Conference (ACC), 2011, 4143-4148	5	2011
Air traffic maximization for the terminal phase of flight under faa's nextgen framework P Twu, R Chipalkatty, A Rahmani, M Egerstedt, R Young Digital Avionics Systems Conference (DASC), 2010 IEEE/AIAA 29th, 2. C. 1-1-2	5	2010
Sustainable group sizes for multi-agent search-and-patrol teams M Haque, M Egerstedt, C Martin GEORGIA INST OF TECH ATLANTA SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING	5	2010

TITLE	CITED BY	YEAR
Optimal motion primitives for multi-UAV convoy protection A Rahmani, XC Ding, M Egerstedt Robotics and Automation (ICRA), 2010 IEEE International Conference on, 4469-4474	5	2010
Dynamic spectral clustering A LaViers, AR Rahmani, MB Egerstedt Georgia Institute of Technology	5	2010
Statistical learning for optimal control of hybrid systems J Piovesan, C Abdallah, M Egerstedt, H Tanner, Y Wardi American Control Conference, 2007. ACC'07, 2775-2780	5	2007
On finding globally optimal paths through weighted colored graphs D Wooden, M Egerstedt Decision and Control, 2006 45th IEEE Conference on, 1948-1953	5	2006
Optimal mode-switching for hybrid systems with unknown initial state H Axelsson, M Boccadoro, Y Wardi, M Egerstedt Analysis and Design of Hybrid Systems 2006, 95-100	5	2006
Obstacle avoidance for mobile robots using switching surface optimization M Boccadoro, M Egerstedt, Y Wardi IFAC Proceedings Volumes 38 (1), 19-24	5	2005
Process control in a high-noise environment using a limited number of measurements LG Barajas, MB Egerstedt, EW Kamen, A Goldstein American Control Conference, 2003. Proceedings of the 2003 1, 597-602	5	2003
Nonsmooth Barrier Functions With Applications to Multi-Robot Systems P Glotfelter, J Cortés, M Egerstedt IEEE control systems letters 1 (2), 310-315	4	2017
Optimal exploration in unknown environments R O'Flaherty, M Egerstedt Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International	4	2015
Decentralized formation of random regular graphs for robust multi-agent networks  AY Yazıcıoğlu, M Egerstedt, JS Shamma	4	2014
Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on, 595-600  Multi-robot mixing of nonholonomic mobile robots Y Diaz-Mercado, M Egerstedt Control Applications (CCA), 2014 IEEE Conference on, 524-529	4	2014
Style-based abstractions for human motion classification A LaViers, M Egerstedt Cyber-Physical Systems (ICCPS), 2014 ACM/IEEE International Conference on, 84-91	4	2014
Characterizing heterogeneity in cooperative networks from a resource distribution view-point W Abbas, M Egerstedt Georgia Institute of Technology	4	2014
Decentralized degree regularization for multi-agent networks AY Yazicioglu, M Egerstedt, JS Shamma Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on, 7498-7503	4	2013

TITLE	CITED BY	YEAR
Distributed Control of Multiagent Systems under Unknown Persistent Disturbances T Yucelen, M Egerstedt arXiv preprint arXiv:1310.3489	4	2013
A separation signal for heterogeneous networks JP de la Croix, M Egerstedt Communication, Control, and Computing (Allerton), 2013 51st Annual Allerton	4	2013
Continuous-time proportional-integral distributed optimization for networked systems G Droge, H Kawashima, M Egerstedt arXiv preprint arXiv:1309.6613	4	2013
Pancakes: A software framework for distributed robot and sensor network applications P Martin, JP de la Croix, M Egerstedt Distributed Autonomous Robotic Systems, 115-127	4	2013
Multi-robot routing under connectivity constraints S Chopra, M Egerstedt IFAC Proceedings Volumes 45 (26), 67-72	4	2012
Optimal decentralized gait transitions for snake robots G Droge, M Egerstedt Robotics and Automation (ICRA), 2012 IEEE International Conference on, 317-322	4	2012
Self-reconfiguration using graph grammars for modular robotics D Pickem, M Egerstedt IFAC Proceedings Volumes 45 (9), 313-318	4	2012
Intruder capturing game on a topological map assisted by information networks  J Kim, S Maxon, M Egerstedt, F Zhang  Decision and Control and European Control Conference (CDC-ECC), 2011 50th	4	2011
Scheduling multiple uninhabited aerial vehicles for target classification by single human operator AE Ortiz, C Langbort Journal of Aerospace Computing, Information, and Communication 8 (12), 328-345	4	2011
Power-aware rendezvous with shrinking footprints H Jaleel, M Egerstedt Intelligent Robots and Systems (IROS), 2011 IEEE/RSJ International	4	2011
Decentralized classification in societies of autonomous and heterogenous robots S Martini, A Fagiolini, G Zichittella, M Egerstedt, A Bicchi Robotics and Automation (ICRA), 2011 IEEE International Conference on, 32-39	4	2011
Expanding motion programs under input constraints P Martin, M Egerstedt American Control Conference (ACC), 2010, 2416-2421	4	2010
Optimal decentralization of multi-agent motions P Twu, M Egerstedt American Control Conference (ACC), 2010, 2326-2331	4	2010

TITLE	CITED BY	YEAR
On-line adaptive optimal timing control of switched systems XC Ding, Y Wardi, M Egerstedt Decision and Control, 2009 held jointly with the 2009 28th Chinese Control	4	2009
Comparing apples and oranges through partial orders: An empirical approach P Kingston, M Egerstedt American Control Conference, 2009. ACC'09., 5434-5439	4	2009
A control theoretic formulation of the generalized slam problem in robotics M Egerstedt, P Jensfelt American Control Conference, 2008, 2409-2414	4	2008
Health monitoring of networked systems P Kingston, M Egerstedt, E Verriest Math. Theory of Networked Syst.(MTNS)	4	2008
Symbolic Control and Planning of Robotic Motion [Grand Challenges of Robotics] C Belta, A Bicci, M Egerstedt, E Frazzoli, E Klavins, GJ Pappas Departmental Papers (ESE), 232	4	2007
Optimal control of switched systems with applications to robotics and manufacturing M Boccadoro, M La Cava, Y Wardi, M Egerstedt Tesi di dottorato, Universita degli Studi, Perugia, Italia	4	2004
A Closed-Loop Control Algorithm for Stencil Printing LG Barajas, EW Kamen, A Goldstein, M Egerstedt, B Small Proceedings of the Surface Mount Technology Association International	4	2002
Reactive mobile manipulation using dynamic trajectory tracking: design and implementation P Ogren, L Petersson, M Egerstedt, X Hu Decision and Control, 2000. Proceedings of the 39th IEEE Conference on 3	4	2000
A control theoretic model of the combined planar motion of the human head and eye M Egerstedt, C Martin Applied mathematics and computation 90 (1), 61-95	4	1998
A control theoretic model of the muscular actions in human head-eye coordination  M Egerstedt, C Martin  Journal of Mathematical Systems Estimation and Control 8, 245-248	4	1998
Asynchronous Multiagent Primal-Dual Optimization MT Hale, A Nedić, M Egerstedt IEEE Transactions on Automatic Control 62 (9), 4421-4435	3	2017
Safe certificate-based maneuvers for teams of quadrotors using differential flatness L Wang, AD Ames, M Egerstedt Robotics and Automation (ICRA), 2017 IEEE International Conference on, 3293-3298	l 3	2017

TITLE	CITED BY	YEAR
Differentially private objective functions in distributed cloud-based optimization Y Wang, M Hale, M Egerstedt, GE Dullerud Decision and Control (CDC), 2016 IEEE 55th Conference on, 3688-3694	3	2016
Cloud-enabled multi-agent optimization with constraints and differentially private states M Hale, M Egerstedt Retrived from http://arxiv. org/abs/1507.04371	3	2015
Distribution of agents with multiple capabilities in heterogeneous multiagent networks-A graph theoretic view W Abbas, M Egerstedt Decision and Control (CDC), 2012 IEEE 51st Annual Conference on, 290-295	3	2012
Open Access and the Future of Scientific Publishing [President's Message CG Cassandras IEEE Control Systems 32 (5), 10-12	3	2012
Motion preference learning P Kingston, M Egerstedt American Control Conference (ACC), 2011, 3819-3824	3	2011
The sting racing team's entry to the urban challenge M Powers, D Wooden, MB Egerstedt, HI Christensen, T Balch Georgia Institute of Technology	3	2011
Automatic Generation of Ballet Phrases A LaViers, Y Chen, C Belta, M Egerstedt	3	2011
Graph process specifications for hybrid networked systems P Twu, P Martin, M Egerstedt IFAC Proceedings Volumes 43 (12), 65-70	3	2010
Stability of switched linear systems and the convergence of random products N Wang, M Egerstedt, C Martin Decision and Control, 2009 held jointly with the 2009 28th Chinese Control	3	2009
Motion description language-based topological maps for robot navigation P Martin, M Egerstedt Communications in Information & Systems 8 (2), 171-184	3	2008
Realization of the sensor web concept for earth science using mobile robotic platforms  AM Howard, B Smith, M Egerstedt  Aerospace Conference, 2007 IEEE, 1-6	3	2007
Convergence of gradient-descent algorithms for mode-scheduling problems in hybrid systems H Axelsson, Y Wardi, M Egerstedt Proceedings of the 17th international symposium on mathematical theory of	3	2006
Network configuration control via connectivity graph processes A Muhammad, M Egerstedt American Control Conference, 2006, 6 pp.	3	2006

TITLE	CITED BY	YEAR
Beyond graphs: higher dimensional structures for networked control systems A Muhammad, R Ghrist, M Egerstedt to appear, Control Sys	3	2006
Modeling and control of SMT manufacturing lines using hybrid dynamic systems LG Barajas, A Kansal, A Saxena, M Egerstedt, A Goldstein, EW Kamen International Workshop on Hybrid Systems: Computation and Control, 66-80	3	2003
Safe Learning of Quadrotor Dynamics Using Barrier Certificates L Wang, EA Theodorou, M Egerstedt arXiv preprint arXiv:1710.05472	2	2017
Cloud-enabled differentially private multi-agent optimization with constraints MT Hale, M Egerstedt IEEE Transactions on Control of Network Systems	2	2017
A Distributed Version of the Hungarian Method for Multirobot Assignment S Chopra, G Notarstefano, M Rice, M Egerstedt IEEE Transactions on Robotics 33 (4), 932-947	2	2017
Convergence rate estimates for consensus over random graphs MT Hale, M Egerstedt American Control Conference (ACC), 2017, 1024-1029	2	2017
Human–Swarm Interactions via Coverage of Time-Varying Densities Y Diaz-Mercado, SG Lee, M Egerstedt Trends in Control and Decision-Making for Human–Robot Collaboration Systems	2	2017
Hamiltonian-Based Algorithm for Optimal Control MT Hale, Y Wardi, H Jaleel, M Egerstedt arXiv preprint arXiv:1603.02747	2	2016
Controllability of prosumer-based networks in the presence of communication failures T Ramachandran, M Nazari, M Egerstedt Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, 4770-4775	2	2015
From algorithms to architectures in cyber-physical networks M Egerstedt Cyber-Physical Systems 1 (2-4), 67-75	2	2015
Effects of insufficient time-scale separation in cascaded, networked systems K Sakurama, El Verriest, M Egerstedt American Control Conference (ACC), 2015, 4683-4688	2	2015
Analyzing Human-Swarm Interactions Using Control Lyapunov Functions and Optimal Control.  JP de la Croix, MB Egerstedt Georgia Institute of Technology	2	2015
Low-dimensional learning for complex robots R O'Flaherty, M Egerstedt IEEE Transactions on Automation Science and Engineering 12 (1), 19-27	2	2015

TITLE	CITED BY	YEAR
Minimum time power-aware rendezvous for multi-agent networks T Setter, M Egerstedt Control Applications (CCA), 2014 IEEE Conference on, 2159-2164	2	2014
From global linear computations to local interaction rules Z Costello, M Egerstedt arXiv preprint arXiv:1311.5959	2	2013
Sleep scheduling of wireless sensor networks using hard-core point processes H Jaleel, M Egerstedt American Control Conference (ACC), 2013, 788-793	2	2013
Graph process specifications for hybrid networked systems PY Twu, P Martin, MB Egerstedt Discrete Event Dynamic Systems 22 (4), 541-577	2	2012
3D reconfiguration using graph grammars for modular robotics D Pickem Georgia Institute of Technology	2	2011
Topology-induced connectivity bounds in leader-follower networks T Gustavi, DV Dimarogonas, MB Egerstedt, X Hu Georgia Institute of Technology	2	2010
System and Methods for Data-Driven Control of Manufacturing Processes L Barajas, M Egerstedt, A Goldstein, E Kamen US Patent App. 11/567,961	2	2007
Solving coverage problems with embedded graph grammars. hybrid systems: Computation and control J Mcnew, E Klavins, M Egerstedt	2	2007
Hybrid function approximation: a variational approach F Delmotte, M Egerstedt, E Verriest Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC'05	2	2005
Robust finite-time connectivity preserving coordination of second-order multi-agent systems C Sun, G Hu, L Xie, M Egerstedt Automatica 89, 21-27	1	2018
Hybrid optimal control under mode switching constraints with applications to pesticide scheduling U Ali, M Egerstedt ACM Transactions on Cyber-Physical Systems 2 (1), 2	1	2018
Coverage Control for Multi-Robot Teams With Heterogeneous Sensing Capabilities M Santos, Y Diaz-Mercado, M Egerstedt IEEE Robotics and Automation Letters	1	2018
Infinitesimally shape-similar motions using relative angle measurements I Buckley, M Egerstedt Intelligent Robots and Systems (IROS), 2017 IEEE/RSJ International	1	2017

TITLE	CITED BY	YEAR
Realizing simultaneous lane keeping and adaptive speed regulation on accessible mobile robot testbeds X Xu, T Waters, D Pickem, P Glotfelter, M Egerstedt, P Tabuada, Control Technology and Applications (CCTA), 2017 IEEE Conference on, 1769-1775	1	2017
Collisions as information sources in densely packed multi-robot systems under mean-field approximations S Mayya, P Pierpaoli, G Nair, M Egerstedt Proc. Robot., Sci. Syst. Conf.	1	2017
Energy-constrained coordination of multi-robot teams T Setter, M Egerstedt IEEE Transactions on Control Systems Technology 25 (4), 1257-1263	1	2017
Robust finite-time connectivity preserving consensus tracking and formation control for multi-agent systems C Sun, G Hu, L Xie, M Egerstedt American Control Conference (ACC), 2017, 1990-1995	1	2017
Trust in multi-agent networks: From self-centered to team-oriented T Setter, A Gasparri, M Egerstedt American Control Conference (ACC), 2017, 997-1002	1	2017
Scalable stability and time-scale separation of networked, cascaded systems K Sakurama, El Verriest, M Egerstedt IEEE Transactions on Control of Network Systems	1	2016
On the construction of local interaction rules that perform global linear computation Z Costello, J Ruths, M Egerstedt Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, 2588-2593	1	2015
A game-theoretic formulation of the homogeneous self-reconfiguration problem D Pickem, M Egerstedt, JS Shamma Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, 2829-2834	1	2015
Inter-Robot Interactions in Multi-Robot Systems Using Braids Y Diaz-Mercado, M Egerstedt arXiv preprint arXiv:1509.04826	1	2015
Coordinated Convoy Protection Among Teams of Unmanned Aerial Vehicles M Egerstedt, A Rahmani, SYR Young Handbook of Unmanned Aerial Vehicles, 2049-2077	1	2015
Metric preference learning with applications to motion imitation P Kingston, J von Hinezmeyer, M Egerstedt Controls and Art, 1-26	1	2014
Distributed and adaptive power-aware scheduling of wireless sensor networks H Jaleel, M Egerstedt Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on, 4152-4157	1	2013

TITLE	CITED BY	YEAR
Learning to locomote: Action sequences and switching boundaries R O'Flaherty, M Egerstedt Automation Science and Engineering (CASE), 2013 IEEE International	1	2013
On the Role of Homogeneity When Controlling Single-Leader Networks P Twu, M Egerstedt Asian Journal of Control 15 (4), 944-956	1	2013
Multi-robot search and rescue: An open-ended educational bridge betwee theory and practice PY Twu, MB Egerstedt Georgia Institute of Technology	n 1	2013
Constrained agreement protocols for tree graph topologies R Chipalkatty, M Egerstedt International Journal of Control 85 (5), 457-474	1	2012
Switching control in DC-DC converter circuits: Optimizing tracking-energy tradeoffs H Kawashima, Y Wardi, D Taylor, M Egerstedt IFAC Proceedings Volumes 45 (9), 198-203	1	2012
Optimization of foraging multi-agent system front: A flux-based curve evolution method M Haque, A Rahmani, M Egerstedt, A Yezzi Robotics and Biomimetics (ROBIO), 2011 IEEE International Conference on, 859-864	1	2011
Make your robot talk correctly: Deriving models of hybrid system N Dantam, M Stilman, MB Egerstedt Georgia Institute of Technology	1	2011
Battery level estimation of mobile agents under communication constraints J Kim, F Zhang, M Egerstedt Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC), 2010 IEEE	5 1	2010
Smoothing Splines on the Torus F Egebrand, MB Egerstedt, CF Martin Georgia Institute of Technology	1	2010
Pilot Decision Support for Controlling Multiple UAVs XC Ding, M Powers, M Egerstedt, R Young, T Balch IEEE Robotics and Automation Magazine	1	2009
Adaptive Optimal Timing Control of Hybrid Systems D Ding, Y Wardi, M Egerstedt Mathematical Theory of Networks and Systems	1	2008
DARPA Urban Challenge T Balch, H Christensen, V Camp, D Logston, T Collins, M Powers,	1	2007
Optimal Switching Surfaces in Behavior-Based Robotics H Axelsson, M Egerstedt, Y Wardi Decision and Control, 2006 45th IEEE Conference on, 1954-1959	1	2006
Quantized Principal Component Analysis with Applications to Low-Bandwidth Image Compression and Communication D Wooden, M Egerstedt, BK Ghosh ISCIE Symposium on Stochastic Systems Theory and Its Applications	1	2005

TITLE	CITED BY	YEAR
From empirical data to multi-modal control procedures F Delmotte, M Egerstedt New Directions and Applications in Control Theory, 81-95	1	2005
Optimal sample time selections for interpolation and smoothing F Delmotte, M Egerstedt, C Martin IFAC Proceedings Volumes 38 (1), 105-110	1	2005
Tracking the fluid level in a double tank system: an example of optimal control in a switched-mode system with arbitrary number of switches H Axelsson, Y Wardi, M Egerstedt, El Verriest Technical Memorandum, Georgia Institute of Technology, School of Electrical	1	
Herdable Systems Over Signed, Directed Graphs SF Ruf, M Egerstedt, JS Shamma arXiv preprint arXiv:1804.04230		2018
Coverage Control for Wire-Traversing Robots G Notomista, M Egerstedt arXiv preprint arXiv:1802.08847		2018
Permissive Barrier Certificates for Safe Stabilization Using Sum-of-squares L Wang, D Han, M Egerstedt arXiv preprint arXiv:1802.08917	S	2018
A Parametric MPC Approach to Balancing the Cost of Abstraction for Differential-Drive Mobile Robots P Glotfelter, M Egerstedt arXiv preprint arXiv:1802.07199		2018
F. Bullo R Bitmead, E Chong, F Jabbari, M Egerstedt, T Parisini, LC Fu, IEEE CONTROL SYSTEMS MAGAZINE		2018
Safety-aware Adaptive Reinforcement Learning with Applications to Brushbot Navigation M Ohnishi, L Wang, G Notomista, M Egerstedt arXiv preprint arXiv:1801.09627		2018
Persistification of Robotic Tasks using Control Barrier Functions G Notomista, S Ruf, M Egerstedt IEEE Robotics and Automation Letters		2018
Dynamics of opinion-dependent product spread SF Ruf, K Paarporn, PE Paré, M Egerstedt Decision and Control (CDC), 2017 IEEE 56th Annual Conference on, 2935-2940		2017
Multirobot Mixing via Braid Groups Y Diaz-Mercado, M Egerstedt IEEE Transactions on Robotics 33 (6), 1375-1385		2017
Performance Regulation and Tracking via Lookahead Simulation: Preliminary Results and Validation Y Wardi, C Seatzu, M Egerstedt, I Buckley arXiv preprint arXiv:1708.04117		2017

TITLE	CITED BY	YEAR
Safe open-loop strategies for handling intermittent communications in multi-robot systems S Mayya, M Egerstedt Robotics and Automation (ICRA), 2017 IEEE International Conference on, 5818-5823		2017
Phenomena Identification and Ranking Tables (PIRTs) Report for Material Selection and Possible Material Degradation Mechanisms in FHR PM Singh, K Chan, F Rahnema Georgia Institute of Technology		2017
Method of evolving junctions: A new approach to optimal path-planning in 2D environments with moving obstacles W Li, SN Chow, M Egerstedt, J Lu, H Zho The International Journal of Robotics Research 36 (4), 403-413		2017
ThE RObOTARIuM A Remotely Accessible Swarm-Robotics Testbed M Egerstedt		2017
Control of Swarming Robots M Egerstedt, SG Lee, Y Diaz-Mercado, S Chopra US Patent App. 15/309,146		2017
Persistent Environmental Monitoring: Robots That Seemingly Do Nothing Most of the Time M Egerstedt Georgia Institute of Technology		2017
E. Chong F Bullo, F Doyle, M Prandini, M Egerstedt, T Parisini, LC Fu, IEEE CONTROL SYSTEMS MAGAZINE		2017
Coordinated Control of Multi-Robot Systems: A Survey J CORTÉS, M EGERSTEDT SICE Journal of Control, Measurement, and System Integration 10 (6), 495-503		2017
Hamiltonian-based algorithm for relaxed optimal control Y Wardi, M Egerstedt, MU Qureshi Decision and Control (CDC), 2016 IEEE 55th Conference on, 7222-7227		2016
Motion Coordination and Adaptation Using Deception and Human Interactions M Egerstedt, P Tsiotras Georgia Institute of Technology Atlanta United States		2016
Distributed frequency regulation in the presence of communication failure MH Nazari, S Grijalva, M Egerstedt Innovative Smart Grid Technologies Conference (ISGT), 2016 IEEE Power		2016
Swarming robots M Egerstedt Mathematisches Forschungsinstitut Oberwolfach		2016
Approximately Truthful Multi-Agent Optimization Using Cloud-Enforced Joint Differential Privacy MT Hale, M Egerstedt arXiv preprint arXiv:1509.08161		2015

TITLE	CITED BY	YEAR
2015 Index IEEE Transactions on Network Science and Engineering Vol. A Bemporad, S Bubeck, B Chazelle, Y Chen, G Como, M Egerstedt, Matrix 97, 111	2	2015
ME Valcher F Doyle, JA Farrell, A Annaswamy, R Bitmead, F Dabbene, S Hirche, IEEE CONTROL SYSTEMS MAGAZINE		2015
2014 IEEE Control Systems Society Awards R Madani, G Fazelnia, S Sojoudi, J Lavaei, M Egerstedt, VS Dolk, IEEE CONTROL SYSTEMS MAGAZINE		2015
2015 American Control Conference (ACC) M Alekajbaf, L Scardovi, JP de la Croix, M Egerstedt American Control Conference (ACC) 4392, 4397		2015
Graphs for Modeling Networked Interactions M Mesbahi, M Egerstedt Encyclopedia of Systems and Control, 510-514		2015
Control and coordination of multi-robot teams M Egerstedt Control Automation Robotics & Vision (ICARCV), 2014 13th International		2014
Control of Multi-Robot Systems M Egerstedt		2014
JA Farrell E Valcher, Y Yamamoto, A Annaswamy, EKP Chong, F Bullo, KA Morris, IEEE CONTROL SYSTEMS MAGAZINE		2014
Group-Size Selection for a Parameterized Class of Predator-Prey Models JP de la Croix, M Egerstedt Georgia Institute of Technology		2014
Learnability for Dynamical Systems R O'Flaherty, M Egerstedt Georgia Institute of Technology		2014
2013 Index IEEE Control Systems Magazine Vol. 33 J Aguero, A Alawieh, G Antonelli, A Arisoy, A Astolfi, MK Bayrakceken, IEEE CONTROL SYSTEMS MAGAZINE 33 (6), 1		2013
Optimal trajectory generation for NextGen flight management systems Y Diaz-Mercado, SG Lee, M Egerstedt, SY Young Digital Avionics Systems Conference (DASC), 2013 IEEE/AIAA 32nd, 1-21		2013
Y. Yamamoto JA Farrell, CG Cassandras, M Fujita, EKP Chong, F Bullo, KA Morris, IEEE CONTROL SYSTEMS MAGAZINE		2013
Pair-wise Agreement Using Set-Valued Sensors T Ramachandran, M Egerstedt IFAC Proceedings Volumes 46 (27), 89-94		2013
Special Issue on the 18th IFAC World Congress E Egerstedt, A Giua NONLINEAR ANALYSIS 7 (1)		2013

TITLE	CITED BY	YEAR
COMMITTEE CHAIRS CG Cassandras, Y Yamamoto, RH Middleton, M Fujita, EKP Chong, IEEE CONTROL SYSTEMS MAGAZINE		2012
2012 Index IEEE Control Systems Vol. 32 A Astolfi, LF Bertuccelli, A Bicchi, F Borrelli, RD Braatz, JH Burridge, IEEE CONTROL SYSTEMS MAGAZINE 32 (6), 1		2012
Optimal control of switched systems: The case of a step-down DC-DC converter H Kawashima, Y Wardi, D Taylor, M Egerstedt Electrical & Electronics Engineers in Israel (IEEEI), 2012 IEEE 27th		2012
Part II: Localization, Navigation, and Formations M Egerstedt Distributed Autonomous Robotic Systems, 131		2012
Mid-level planning and control for articulated locomoting systems M Egerstedt, H Choset Georgia Institute of Technology		2012
Guest editorial: hybrid systems, part II Y Wardi, M Egerstedt Discrete Event Dynamic Systems 22 (1), 1-2		2012
CG Cassandras Y Yamamoto, RH Middleton, M Fujita, EKP Chong, FJ Doyle, SS Ge, IEEE CONTROL SYSTEMS MAGAZINE		2012
Guest editorial: hybrid systems, part I Y Wardi, M Egerstedt Discrete Event Dynamic Systems 21 (4), 425		2011
Pilot decision aids for multi-vehicle ops MB Egerstedt, R Chipalkatty, PY Twu, AR Rahmani Georgia Institute of Technology		2011
Summer school on cyber physical systems MC Wolf, MB Egerstedt Georgia Institute of Technology		2011
PEOPLE IN CONTROL  M Egerstedt, S Yurkovich IEEE CONTROL SYSTEMS MAGAZINE 31 (2), 39-43		2011
R. Middleton CG Cassandras, R Tempo, M Fujita, P Misra, F Doyle, SS Ge, F Bullo, IEEE CONTROL SYSTEMS MAGAZINE		2011
B. Hanlon, C. Martin, and V. Tyuryaev M Egerstedt Communications in Information and Systems 11 (4)		2011
Degrees of control Combining network science with control theory M Egerstedt NATURE-LONDON- 473 (7346), 158-158		2011

TITLE	CITED BY	YEAR
A Formal Approach to the Automatic Generation of Ballet Phrases A LaViers, Y Chen, C Belta, MB Egerstedt Georgia Institute of Technology		2011
R. Tempo R Middleton, T Samad, ME Valcher, P Misra, CG Cassandras, S Hara, IEEE CONTROL SYSTEMS MAGAZINE		2010
Algorithm for optimal mode-scheduling in switched-mode hybrid dynamical systems Y Wardi, M Egerstedt Electrical and Electronics Engineers in Israel (IEEEI), 2010 IEEE 26th	l	2010
Controllability of Homogeneous Single-Leader Networks MB Egerstedt, S Martini, PY Twu Georgia Institute of Technology		2010
Optimal Decentralization of Multi-Agent Motions MB Egerstedt, PY Twu Georgia Institute of Technology		2010
Graph Process Specifications for Hybrid Networked Systems P Martin, MB Egerstedt, PY Twu Georgia Institute of Technology		2010
Motion Programs for Multi-Agent Control: From Specification to Execution P Martin, MB Egerstedt Georgia Institute of Technology		2010
CSR-EHS: Optimal, multi-modal control of complex systems M Egerstedt, Y Wardi, D Ding, H Axelsson Georgia Institute of Technology		2009
RoboComm Editorial L Schenato, F De Pellegrini, J Redi, M Egerstedt, AFT Winfield Mobile Networks and Applications 14 (4), 551-551		2009
On the number of leaders needed to ensure network connectivity in arbitrary dimensions T Gustavi, DV Dimarogonas, M Egerstedt, X Hu Control and Automation, 2009. MED'09. 17th Mediterranean Conference on, 98-103		2009
T. Samad R Tempo, DA Castañón, ME Valcher, EH Abed, E Misawa, S Hara, SS Ge, IEEE CONTROL SYSTEMS MAGAZINE		2009
RoboComm Editorial J Redi Mobile Networks and Applications 14 (3), 265-266		2009
Hybrid Systems: Computation and Control: 12th International Conference, HSCC 2009, San Francisco, CA, USA, April 13-15, 2009, Proceedings R Majumdar, P Tabuada Springer		2009

TITLE	CITED BY	YEAR
Orbital control for a class of planar impulsive hybrid systems with controllable resets A Schild, M Egerstedt, J Lunze International Workshop on Hybrid Systems: Computation and Control, 465-469		2009
An Information Space View of "Time": From Clocks to Open-Loop Control SM LaValle, M Egerstedt Emergent Problems in Nonlinear Systems and Control, 93-106		2009
Decentralized algorithms for locally interacting mobile robots MB Egerstedt Georgia Institute of Technology		2008
2008 Index IEEE Transactions on Electronics Packaging Manufacturing Vol. 31		2008
AO Aggarwal, SS Asfour, DF Baldwin, C Banda, LG Barajas, DD Barry, IEEE Transactions on Electronics Packaging Manufacturing 31 (4), 361		
Hybrid Systems: Computation and Control: 11th International Workshop, HSCC 2008, St. Louis, MO, USA, April 22-24, 2008, Proceedings M Egerstedt, B Mishra Springer		2008
MEMBERS OF THE CSS BOARD OF GOVERNORS DA Castañón, TE Djaferis, ME Valcher, T Parisini, C Abdallah, L Guo, IEEE CONTROL SYSTEMS MAGAZINE		2008
Sean B. Andersson, Dimitris Hristu-Varsakelis, and Morteza Lahijanian MA Belabbas, G Dirr, U Helmke, A Arsie, C Ebenbauer, M Egerstedt, Communications in Information and Systems 8 (2)		2008
Curve Tracking for Autonomous Vehicles with Rigidly Mounted Range Sensors J Kim, F Zhang, MB Egerstedt Georgia Institute of Technology		2008
A variational approach to constructivist learning for mobile robot navigatio TR Mehta, M Egerstedt Decision and Control, 2007 46th IEEE Conference on, 4179-4184	n	2007
Development of Autonomous, Robotic Meteorological Stations for Improved Ice Sheet Climate Monitoring. A Howard, DJ Lampkin, M Egerstedt, P Spollen, N Mercurio, J Allshouse, AGU Fall Meeting Abstracts		2007
2 From the Editor's Desk 4 President's Message 9 From the Guest Editors 12 Society News 18 Education CC Kemp, A Edsinger, E Torres-Jara, B Dellon, Y Matsuoka, A Tapus,	5	2007
Trade-offs between precision and computation horizon in real-time optimal control of switched systems H Axelsson, M Egerstedt, Y Wardi American Control Conference, 2006, 6 pp.	I	2006
Yi Guo, Zhong-Ping Jiang, Daniel W. Repperger, and Xingxing Wu N Cai, RW Yeung, M Egerstedt, C Martin, Y Zhou Communications in Information and Systems 6 (1)		2006

TITLE	CITED BY	YEAR
An Optimal Control Approach to Mode Generation in Hybrid Systems MB Egerstedt, S Azuma, Y Wardi Georgia Institute of Technology		2006
OPTIMAL IMPULSIVE CONTROL FOR POINT DELAY SYSTEMS WITH REFRACTORY PERIOD EIVF Delmotte, M Egerstedt Time-delay Systems 2004: A Proceedings Volume from the 5th IFAC Workshop		2005
What Are the Ants Doing? Vision-Based Tracking and Reconstruction of Control Programs T Balch, F Dellaert, F Delmotte, Z Khan, MB Egerstedt Georgia Institute of Technology		2005
Optimal design of smoothing spline surface using B-spline functions H Fujioka, H Kano, M Egerstedt SICE 2004 Annual Conference 1, 107-110		2004
Structure and synthesis of PID controllers: Aniruddha Datta, Ming-Tzu Ho and Shankar P. Bhattacharyya; Springer, London, 2000, ISBN 1-85233-614-5 QG Wang Automatica 39 (4), 758-759		2003
Robot Force Control: Bruno Siciliano and Luigi Villani, Kluwer Academic Publishers, Boston, 1999, ISBN 0-7923-7733-8 M Egerstedt Automatica 39 (4), 757-758		2003
2003 CSS Awards M Babaali, M Egerstedt, P Grieder, DE Quevedo, GC Goodwin IEEE Transactions on Control Systems Technology 22 (3)		2002
B-splines and control theory H Kano, M Egerstedt, H Nakata, CF Martin IFAC Proceedings Volumes 35 (1), 341-346		2002
Reactive Mobile Manipulation: Design and Implementation P Ögren, MB Egerstedt, X Hu Georgia Institute of Technology		2000
Trajectory planning with smoothing splines S Sun, M Egerstedt, CF Martin IFAC Proceedings Volumes 32 (2), 1885-1890		1999
Control of the Planar Rotation in Human Head-Eye-Coordination M Egerstedt, CF Martiny		1997
A Control Lyapunov Function Approach to Multi-Agent Coordination1 P VOgren, M Egerstedt, X Hu		
For more information please visit: sites. bu. edu/tcns M Chertkov, M di Bernardo, N Elia, F Fagnani, R Fierro, M Franceschetti,		
A Matlab-Simulink simulation code Alcasim has been developed for Alcato C-Mod. The simulator includes models of the tokamak and plasma, the	or	

magnetic diagno... B de Jager TITLE CITED BY YEAR

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# Distributed Coordination Control of Multi-Agent Systems While Preserving Connectedness (Regular Paper)

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Z Achour, A Astolfi, M Babaali, B Er-Wei, B Cheng, I Barkana, B Song, ...

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