Dimos V Dimarogonas

List of Publications by Year in Descending Order

153 papers	5,053 citations	27 h-index	69 g-index
167 ext. papers	6,651 ext. citations	4.1 avg, IF	6.51 L-index

#	Paper	IF	Citations
153	A Robust, Multiple Control Barrier Function Framework for Input Constrained Systems **2022**, 6, 1742-1747		0
152	The Two-Stage PI2 Control Strategy **2022**, 6, 2072-2077		0
151	Distributed Implementation of Control Barrier Functions for Multi-agent Systems **2022**, 6, 1879-1884		
150	Signal Temporal Logic Task Decomposition via Convex Optimization **2022**, 6, 1238-1243		0
149	Adaptive Cooperative Control for Human-Robot Load Manipulation. *IEEE Robotics and Automation Letters*, **2022**, 7, 5623-5630	4.2	0
148	On Compatibility and Region of Attraction for Safe, Stabilizing Control Laws. *IEEE Transactions on Automatic Control*, **2022**, 1-1	5.9	1
147	Reactive and Risk-Aware Control for Signal Temporal Logic. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	1
146	A robust non-linear MPC framework for control of underwater vehicle manipulator systems under high-level tasks. *IET Control Theory and Applications*, **2021**, 15, 323-337	2.5	5
145	Efficient Cooperation of Heterogeneous Robotic Agents: A Decentralized Framework. *IEEE Robotics and Automation Magazine*, **2021**, 28, 74-87	3.4	0
144	Satisfaction of Linear Temporal Logic Specifications Through Recurrence Tools for Hybrid Systems. *IEEE Transactions on Automatic Control*, **2021**, 66, 818-825	5.9	0
143	Robust Trajectory Tracking Control for Underactuated Autonomous Underwater Vehicles in Uncertain Environments. *IEEE Transactions on Automation Science and Engineering*, **2021**, 18, 1288-1301	4.9	22
142	Intermittent Connectivity Maintenance With Heterogeneous Robots. *IEEE Transactions on Robotics*, **2021**, 37, 225-245	6.5	1
141	Aerial Slung-Load Position Tracking Under Unknown Wind Forces. *IEEE Transactions on Automatic Control*, **2021**, 66, 3952-3968	5.9	1
140	Adaptive robot navigation with collision avoidance subject to 2nd-order uncertain dynamics. *Automatica*, **2021**, 123, 109303	5.7	6
139	Perimeter Surveillance Based on Set-Invariance. *IEEE Robotics and Automation Letters*, **2021**, 6, 9-16	4.2	0
138	Leader-Follower Formation Control With Prescribed Performance Guarantees. *IEEE Transactions on Control of Network Systems*, **2021**, 8, 450-461	4	12
137	Asymptotic Tracking of Second-Order Nonsmooth Feedback Stabilizable Unknown Systems With Prescribed Transient Response. *IEEE Transactions on Automatic Control*, **2021**, 66, 3296-3302	5.9	2

136	Coupled Multi-Robot Systems Under Linear Temporal Logic and Signal Temporal Logic Tasks. *IEEE Transactions on Control Systems Technology*, **2021**, 29, 858-865	4.8	5
135	Distributed Motion Coordination for Multirobot Systems Under LTL Specifications. *IEEE Transactions on Robotics*, **2021**, 1-16	6.5	2
134	Time-constrained leader-follower multi-agent task scheduling and control synthesis. *IEEE Transactions on Control of Network Systems*, **2021**, 1-1	4	
133	. *IEEE Robotics and Automation Letters*, **2021**, 6, 6789-6796	4.2	0
132	High-order Barrier Functions: Robustness, Safety and Performance-Critical Control. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	6
131	Obstacle Avoidance via Hybrid Feedback. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	
130	A Self-triggered Position Based Visual Servoing Model Predictive Control Scheme for Underwater Robotic Vehicles. *Machines*, **2020**, 8, 33	2.9	10
129	Symmetry Reduction in Optimal Control of Multiagent Systems on Lie Groups. *IEEE Transactions on Automatic Control*, **2020**, 65, 4973-4980	5.9	2
128	Control Design for Risk-Based Signal Temporal Logic Specifications **2020**, 4, 1000-1005		3
127	On Robustness Metrics for Learning STL Tasks **2020**,		8
126	Distributed $ell _1$-State-and-Fault Estimation for Multiagent Systems. *IEEE Transactions on Control of Network Systems*, **2020**, 7, 699-710	4	8
125	Energy-Optimal Cooperative Manipulation via Provable Internal-Force Regulation **2020**,		2
124	Barrier Function Based Collaborative Control of Multiple Robots Under Signal Temporal Logic Tasks. *IEEE Transactions on Control of Network Systems*, **2020**, 7, 1916-1928	4	8
123	Scalable time-constrained planning of multi-robot systems. *Autonomous Robots*, **2020**, 44, 1451-1467	3	1
122	Efficient Automata-based Planning and Control under Spatio-Temporal Logic Specifications **2020**,		4
121	Robust Cooperative Manipulation Without Force/Torque Measurements: Control Design and Experiments. *IEEE Transactions on Control Systems Technology*, **2020**, 28, 713-729	4.8	13
120	A Common Framework for Complete and Incomplete Attitude Synchronization in Networks With Switching Topology. *IEEE Transactions on Automatic Control*, **2020**, 65, 271-278	5.9	3
119	Robust decentralised navigation of multi-agent systems with collision avoidance and connectivity maintenance using model predictive controllers. *International Journal of Control*, **2020**, 93, 1470-1484	1.5	13

118	Motion Feasibility Conditions for Multiagent Control Systems on Lie Groups. *IEEE Transactions on Control of Network Systems*, **2020**, 7, 493-502	4	8
117	Synthesizing Communication Plans for Reachability and Safety Specifications. *IEEE Transactions on Automatic Control*, **2020**, 65, 561-576	5.9	3
116	Closed-Form Barrier Functions for Multi-Agent Ellipsoidal Systems With Uncertain Lagrangian Dynamics **2019**, 3, 727-732		13
115	**2019**,		4
114	A Symbolic Approach to the Self-Triggered Design for Networked Control Systems **2019**, 3, 1050-1055		2
113	Explicit Computation of Sampling Period in Periodic Event-Triggered Multiagent Control Under Limited Data Rate. *IEEE Transactions on Control of Network Systems*, **2019**, 6, 1366-1378	4	10
112	Feedback control strategies for multi-agent systems under a fragment of signal temporal logic tasks. *Automatica*, **2019**, 106, 284-293	5.7	7
111	Event-Triggered Control of Nonlinear Systems With Updating Threshold **2019**, 3, 655-660		9
110	Robust Self-Triggered MPC With Adaptive Prediction Horizon for Perturbed Nonlinear Systems. *IEEE Transactions on Automatic Control*, **2019**, 64, 4780-4787	5.9	32
109	Robust formation control in SE(3) for tree-graph structures with prescribed transient and steady state performance. *Automatica*, **2019**, 103, 538-548	5.7	27
108	Decentralized tube-based model predictive control of uncertain nonlinear multiagent systems. *International Journal of Robust and Nonlinear Control*, **2019**, 29, 2799-2818	3.6	14
107	Hierarchical Decomposition of LTL Synthesis Problem for Nonlinear Control Systems. *IEEE Transactions on Automatic Control*, **2019**, 64, 4676-4683	5.9	12
106	Control Barrier Functions for Signal Temporal Logic Tasks **2019**, 3, 96-101		60
105	Control Barrier Functions for Multi-Agent Systems Under Conflicting Local Signal Temporal Logic Tasks **2019**, 3, 757-762		25
104	Robust self-triggered control for time-varying and uncertain constrained systems via reachability analysis. *Automatica*, **2019**, 107, 574-581	5.7	1
103	Adaptive Leader-Follower Coordination of Lagrangian Multi-Agent Systems under Transient Constraints **2019**,		1
102	Asymptotic Stability of Uncertain Lagrangian Systems with Prescribed Transient Response **2019**,		1
101	Consensus Control for Leader-follower Multi-agent Systems under Prescribed Performance Guarantees **2019**,		3

100	Distributed Event-Based Control and Stability of Interconnected Systems **2019**,		1
99	A Hybrid Controller for Obstacle Avoidance in an n-dimensional Euclidean Space **2019**,		4
98	Intermittent Connectivity Maintenance with Heterogeneous Robots using a Beads-on-a-Ring Strategy **2019**,		1
97	Second Order Consensus for Leader-follower Multi-agent Systems with Prescribed Performance. *IFAC-PapersOnLine*, **2019**, 52, 103-108	0.7	2
96	Resource-aware networked control systems under temporal logic specifications. *Discrete Event Dynamic Systems: Theory and Applications*, **2019**, 29, 473-499	1	3
95	Decentralized abstractions for multi-agent systems under coupled constraints. *European Journal of Control*, **2019**, 45, 1-16	2.5	5
94	Robust control for signal temporal logic specifications using discrete average space robustness. *Automatica*, **2019**, 101, 377-387	5.7	17
93	Dynamic Event-Triggered and Self-Triggered Control for Multi-agent Systems. *IEEE Transactions on Automatic Control*, **2019**, 64, 3300-3307	5.9	120
92	Aperiodic Sampled-Data Control via Explicit Transmission Mapping: A Set-Invariance Approach. *IEEE Transactions on Automatic Control*, **2018**, 63, 3523-3530	5.9	9
91	Distributed Event-Triggered Communication and Control of Linear Multiagent Systems Under Tactile Communication. *IEEE Transactions on Automatic Control*, **2018**, 63, 3979-3985	5.9	26
90	A General Approach to Coordination Control of Mobile Agents With Motion Constraints. *IEEE Transactions on Automatic Control*, **2018**, 63, 1509-1516	5.9	46
89	Compositional abstraction refinement for control synthesis. *Nonlinear Analysis: Hybrid Systems*, **2018**, 27, 437-451	4.5	5
88	Decomposition of Finite LTL Specifications for Efficient Multi-agent Planning. *Springer Proceedings in Advanced Robotics*, **2018**, 253-267	0.6	6
87	Fuel-Efficient En Route Formation of Truck Platoons. *IEEE Transactions on Intelligent Transportation Systems*, **2018**, 19, 102-112	6.1	43
86	Decentralized Robust Control of Coupled Multi-Agent Systems under Local Signal Temporal Logic Tasks **2018**,		5
85	Simultaneous task allocation and planning for temporal logic goals in heterogeneous multi-robot systems. *International Journal of Robotics Research*, **2018**, 37, 818-838	5.7	43
84	Communication-based Decentralized Cooperative Object Transportation Using Nonlinear Model Predictive Control **2018**,		10
83	Timed abstractions for distributed cooperative manipulation. *Autonomous Robots*, **2018**, 42, 781-799	3	5

82	Cloud-Supported Formation Control of Second-Order Multiagent Systems. *IEEE Transactions on Control of Network Systems*, **2018**, 5, 1563-1574	4	15
81	Event-Based Vehicle Coordination Using Nonlinear Unidirectional Controllers. *IEEE Transactions on Control of Network Systems*, **2018**, 5, 1575-1584	4	18
80	Generalized PID Synchronization of Higher Order Nonlinear Systems With a Recursive Lyapunov Approach. *IEEE Transactions on Control of Network Systems*, **2018**, 5, 1608-1621	4	2
79	Time-constrained multi-agent task scheduling based on prescribed performance control **2018**,		1
78	Event-Triggered Control for a Class of Cascade Systems **2018**,		2
77	Optimal Control of Left-Invariant Multi-Agent Systems with Asymmetric Formation Constraints **2018**,		2
76	Self- Triggered Control under Actuator Delays **2018**,		3
75	A Tube-based MPC Scheme for Interaction Control of Underwater Vehicle Manipulator Systems **2018**,		4
74	A hybrid barrier certificate approach to satisfy linear temporal logic specifications **2018**,		3
73	Decentralized Control of Uncertain Multi-Agent Systems with Connectivity Maintenance and Collision Avoidance **2018**,		5
72	A robust interaction control approach for underwater vehicle manipulator systems. *Annual Reviews in Control*, **2018**, 46, 315-325	10.3	24
71	Self-Triggered Model Predictive Control for Nonlinear Input-Affine Dynamical Systems via Adaptive Control Samples Selection. *IEEE Transactions on Automatic Control*, **2017**, 62, 177-189	5.9	62
70	Event-triggered intermittent sampling for nonlinear model predictive control. *Automatica*, **2017**, 81, 148-155	5.7	71
69	Robustness and Invariance of Connectivity Maintenance Control for Multiagent Systems. *SIAM Journal on Control and Optimization*, **2017**, 55, 1887-1914	1.9	12
68	Multi-Agent Second Order Average Consensus With Prescribed Transient Behavior. *IEEE Transactions on Automatic Control*, **2017**, 62, 5282-5288	5.9	40
67	Family of controllers for attitude synchronization on the sphere. *Automatica*, **2017**, 75, 271-281	5.7	11
66	Decentralized motion planning with collision avoidance for a team of UAVs under high level goals **2017**,		7
65	A hybrid systems framework for multi agent task planning and control **2017**,		4

64	Self-triggered control for constrained systems: A contractive set-based approach **2017**,		3
63	Collaborative transportation of a bar by two aerial vehicles with attitude inner loop and experimental validation **2017**,		1
62	Event-triggered model predictive control with machine learning for compensation of model uncertainties **2017**,		4
61	Multi-Agent Motion Planning and Object Transportation under High Level Goals * *This work was supported by the H2020 ERC Starting Grand BU-COPHSYS, the Swedish Research Council (VR), the Knut och Alice Wallenberg Foundation and the European Union's Horizon 2020 Research and Innovation Programme under the Grant Agreement No. 644128 (AEROWORKS). *IFAC-PapersOnLine*, 2017, 50, 15816-15821	0.7	1
60	Robust decentralized abstractions for multiple mobile manipulators **2017**,		2
59	**2017**,		4
58	Compositional abstraction refinement for control synthesis under lasso-shaped specifications **2017**,		2
57	Slung load transportation with a single aerial vehicle and disturbance removal **2016**,		11
56	Communication-Free Multi-Agent Control Under Local Temporal Tasks and Relative-Distance Constraints. *IEEE Transactions on Automatic Control*, **2016**, 61, 3948-3962	5.9	12
55	Periodic Behaviors for Discrete-Time Second-Order Multiagent Systems With Input Saturation Constraints. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2016**, 63, 663-667	3.5	11
54	Multi-agent trajectory tracking with self-triggered cloud access **2016**,		6
53	**2016**,		5
52	A common framework for attitude synchronization of unit vectors in networks with switching topology **2016**,		3
51	Multi-agent planning under local LTL specifications and event-based synchronization. *Automatica*, **2016**, 70, 239-248	5.7	44
50	Multi-agent plan reconfiguration under local LTL specifications. *International Journal of Robotics Research*, **2015**, 34, 218-235	5.7	102
49	Distributed aperiodic model predictive control for multi-agent systems. *IET Control Theory and Applications*, **2015**, 9, 10-20	2.5	49
48	. *IEEE Transactions on Control of Network Systems*, **2015**, 2, 204-213	4	111
47	Posture regulation for unicycle-like robots with prescribed performance guarantees. *IET Control Theory and Applications*, **2015**, 9, 192-202	2.5	7

46	Fuel-optimal centralized coordination of truck platooning based on shortest paths **2015**,		34
45	Event-triggered control for vehicle platooning **2015**,		12
44	Coordinating Truck Platooning by Clustering Pairwise Fuel-Optimal Plans **2015**,		10
43	Control of multi-agent systems with event-triggered cloud access **2015**,		16
42	Leader-follower Coordinated Tracking of Multiple Heterogeneous Lagrange Systems Using Continuous Control. *IEEE Transactions on Robotics*, **2014**, 30, 739-745	6.5	70
41	Collective Circumnavigation. *Unmanned Systems*, **2014**, 02, 219-229	3	24
40	A receding horizon approach to multi-agent planning from local LTL specifications **2014**,		20
39	Consensus in multi-agent systems with second-order dynamics and non-periodic sampled-data exchange **2014**,		4
38	Consensus in multi-agent systems with non-periodic sampled-data exchange and uncertain network topology **2014**,		1
37	Event-triggered pinning control of complex networks with switching topologies **2014**,		19
36	Global consensus for discrete-time multi-agent systems with input saturation constraints. *Automatica*, **2014**, 50, 499-506	5.7	215
35	Motion and action planning under LTL specifications using navigation functions and action description language **2013**,		1
34	Event-based broadcasting for multi-agent average consensus. *Automatica*, **2013**, 49, 245-252	5.7	745
33	Nonlinear consensus via continuous, sampled, and aperiodic updates. *International Journal of Control*, **2013**, 86, 567-578	1.5	27
32	Obstacle avoidance in formation using navigation-like functions and constraint based programming **2013**,		1
31	Distributed event-based control strategies for interconnected linear systems. *IET Control Theory and Applications*, **2013**, 7, 877-886	2.5	63
30	Revising motion planning under Linear Temporal Logic specifications in partially known workspaces **2013**,		1
29	A self-triggered Model Predictive Control framework for the cooperation of distributed nonholonomic agents **2013**,		18

28	Distributed solution for a Maximum Variance Unfolding Problem with sensor and robotic network applications **2012**,		5
27	Multi-agent average consensus control with prescribed performance guarantees **2012**,		17
26	Distributed Event-Triggered Control for Multi-Agent Systems. *IEEE Transactions on Automatic Control*, **2012**, 57, 1291-1297	5.9	1289
25	Sufficient Conditions for Decentralized Potential Functions Based Controllers Using Canonical Vector Fields. *IEEE Transactions on Automatic Control*, **2012**, 57, 2621-2626	5.9	17
24	Aperiodic model predictive control via perturbation analysis **2012**,		2
23	Decentralized multi-agent control from local LTL specifications **2012**,		25
22	Event-based model Predictive control for the cooperation of distributed agents **2012**,		16
21	Opinion consensus of modified Hegselmann-Krause models **2012**,		5
20	A decentralized event-based predictive navigation scheme for Air-Traffic Control **2012**,		1
19	Novel event-triggered strategies for Model Predictive Controllers **2011**,		56
18	L2 gain stability analysis of event-triggered agreement protocols **2011**,		6
17	Quantized cooperative control using relative state measurements **2011**,		4
16	Sufficient conditions for decentralized navigation functions based controllers using canonical vector fields **2011**,		1
15	Stability analysis for multi-agent systems using the incidence matrix: Quantized communication and formation control. *Automatica*, **2010**, 46, 695-700	5.7	173
14	Leaderfollower cooperative attitude control of multiple rigid bodies. *Systems and Control Letters*, **2009**, 58, 429-435	2.4	241
13	Event-triggered control for multi-agent systems **2009**,		119
12	Inverse Agreement Protocols With Application to Distributed Multi-Agent Dispersion. *IEEE Transactions on Automatic Control*, **2009**, 54, 657-663	5.9	20
11	Decentralized connectivity maintenance in mobile networks with bounded inputs **2008**,		55

10	Analysis of robot navigation schemes using Rantzer's Dual Lyapunov Theorem **2008**,		9
9	Quantized agreement under time-varying communication topology **2008**,		5
8	Leader-follower cooperative attitude control of multiple rigid bodies **2008**,		4
7	3D navigation and collision avoidance for a non-holonomic vehicle **2008**,		22
6	On the stability of distance-based formation control **2008**,		74
5	Inverse agreement algorithms with application to swarm dispersion for multiple nonholonomic agents **2008**,		2
4	Further results on formation infeasibility and velocity alignment **2007**,		1
3	An inverse agreement control strategy with application to swarm dispersion **2007**,		5
2	Connectivity preserving distributed swarm aggregation for multiple kinematic agents **2007**,		15
1	A feedback stabilization and collision avoidance scheme for multiple independent non-point agents. *Automatica*, **2006**, 42, 229-243	5.7	192