Dušan M Stipanović

List of Publications by Year
in descending order

91 papers	3,909 citations	201385 27 h-index	155451 55 g-index
93 all docs	93 docs citations	93 times ranked	2313 citing authors

#	Article	IF	Citations
1	Decentralized overlapping control of a formation of unmanned aerial vehicles. Automatica, 2004, 40, 1285-1296.	3.0	413
2	Formation Control and Collision Avoidance for Multi-agent Non-holonomic Systems: Theory and Experiments. International Journal of Robotics Research, 2008, 27, 107-126.	5.8	363
3	Effective Coverage Control for Mobile Sensor Networks With Guaranteed Collision Avoidance. IEEE Transactions on Control Systems Technology, 2007, 15, 642-657.	3.2	255
4	Distributed Seeking of Nash Equilibria With Applications to Mobile Sensor Networks. IEEE Transactions on Automatic Control, 2012, 57, 904-919.	3.6	217
5	Cooperative Avoidance Control for Multiagent Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2007, 129, 699-707.	0.9	184
6	Distributed Coordination Control for Multi-Robot Networks Using Lyapunov-Like Barrier Functions. IEEE Transactions on Automatic Control, 2016, 61, 617-632.	3.6	176
7	Consensus based overlapping decentralized estimation with missing observations and communication faults. Automatica, 2009, 45, 1397-1406.	3.0	160
8	Bilateral Teleoperation of Multiple Mobile Agents: Coordinated Motion and Collision Avoidance. IEEE Transactions on Control Systems Technology, 2010, 18, 984-992.	3.2	141
9	Cooperative pursuit with Voronoi partitions. Automatica, 2016, 72, 64-72.	3.0	130
10	Decentralized Parameter Estimation by Consensus Based Stochastic Approximation. IEEE Transactions on Automatic Control, 2011, 56, 531-543.	3.6	119
11	Trajectory tracking with collision avoidance for nonholonomic vehicles with acceleration constraints and limited sensing. International Journal of Robotics Research, 2014, 33, 1569-1592.	5.8	117
12	Consensus Based Overlapping Decentralized Estimator. IEEE Transactions on Automatic Control, 2009, 54, 410-415.	3.6	111
13	Decentralized dynamic output feedback for robust stabilization of a class of nonlinear interconnected systems. Automatica, 2007, 43, 861-867.	3.0	110
14	Extremum seeking under stochastic noise and applications to mobile sensors. Automatica, 2010, 46, 1243-1251.	3.0	95
15	Formation control and coordinated tracking via asymptotic decoupling for Lagrangian multi-agent systems. Automatica, 2011, 47, 2355-2363.	3.0	91
16	A decentralized optimization algorithm for multiagent system–based watershed management. Water Resources Research, 2009, 45, .	1.7	82
17	GUARANTEED STRATEGIES FOR NONLINEAR MULTI-PLAYER PURSUIT-EVASION GAMES. International Game Theory Review, 2010, 12, 1-17.	0.3	77
18	Monotone Approximations of Minimum and Maximum Functions and Multi-objective Problems. Applied Mathematics and Optimization, 2012, 66, 455-473.	0.8	62

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19	Safe and reliable coverage control. Numerical Algebra, Control and Optimization, 2013, 3, 31-48.	1.0	57
20	Semiautonomous control of multiple networked Lagrangian systems. International Journal of Robust and Nonlinear Control, 2009, 19, 2040-2055.	2.1	56
21	Coordination and collision avoidance for Lagrangian systems with disturbances. Applied Mathematics and Computation, 2010, 217, 1085-1094.	1.4	47
22	Multi-objective control for multi-agent systems using Lyapunov-like barrier functions. , 2013, , .		46
23	Remote Formation Control and Collision Avoidance for Multi-Agent Nonholonomic Systems. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	38
24	Effective Coverage Control using Dynamic Sensor Networks. , 2006, , .		37
25	A swarm-based approach to dynamic coverage control of multi-agent systems. Automatica, 2020, 112, 108637.	3.0	35
26	Persistent coverage control for a team of agents with collision avoidance. European Journal of Control, 2015, 22, 30-45.	1.6	34
27	Decentralized parameter estimation by consensus based stochastic approximation. , 2007, , .		33
28	Distributed Dynamic Coverage and Avoidance Control Under Anisotropic Sensing. IEEE Transactions on Control of Network Systems, 2017, 4, 850-862.	2.4	33
29	Reliable coverage control using heterogeneous vehicles. , 2007, , .		31
30	Multiattribute Utility Copulas for Multi-objective Coverage Control. Paladyn, 2014, 5, .	1.9	31
31	CONTROL STRATEGIES FOR PLAYERS IN PURSUIT-EVASION GAMES BASED ON THEIR PREFERENCES. International Game Theory Review, 2014, 16, 1440008.	0.3	31
32	Polytopic Approximations of Reachable Sets Applied to Linear Dynamic Games and a Class of Nonlinear Systems. , 2005, , 3-19.		30
33	Distributed seeking of Nash equilibria in mobile sensor networks. , 2010, , .		28
34	Supervised coverage control of multi-agent systems. Automatica, 2014, 50, 2936-2942.	3.0	27
35	Guaranteed Collision Avoidance for Autonomous Systems with Acceleration Constraints and Sensing Uncertainties. Journal of Optimization Theory and Applications, 2016, 168, 1014-1038.	0.8	24
36	Collision-free trajectory tracking while preserving connectivity in unicycle multi-agent systems. , 2013, , .		22

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37	Control and navigation of formations of car-like robots on a receding horizon. , 2009, , .		20
38	Effective Coverage Control using Dynamic Sensor Networks with Flocking and Guaranteed Collision Avoidance. Proceedings of the American Control Conference, 2007, , .	0.0	19
39	Control and navigation in manoeuvres of formations of unmanned mobile vehicles. European Journal of Control, 2013, 19, 157-171.	1.6	19
40	Collision avoidance control with sensing uncertainties. , 2011, , .		18
41	Trajectory Tracking Control of Unicycle Robots with Collision Avoidance and Connectivity Maintenance. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 96, 331-343.	2.0	18
42	Reliable Control of Multi-Agent Formations. Proceedings of the American Control Conference, 2007, , .	0.0	17
43	Decentralised control of nonlinear dynamical systems. International Journal of Control, 2014, 87, 827-843.	1.2	17
44	Some Sufficient Conditions for Multi-Player Pursuit-Evasion Games with Continuous and Discrete Observations. Annals of the International Society of Dynamic Games, 2009, , 1-13.	0.3	16
45	Distributed min-max optimization in networks. , 2011, , .		14
46	Teleoperation of multi-agent systems with nonuniform control input delays. Integrated Computer-Aided Engineering, 2012, 19, 125-136.	2.5	14
47	Consensus-based decentralized real-time identification of large-scale systems. Automatica, 2015, 60, 219-226.	3.0	14
48	Gait Generation and Stabilization for Nearly Passive Dynamic Walking Using Auto‐distributed Impulses. Asian Journal of Control, 2016, 18, 1343-1358.	1.9	12
49	Stable Bilateral Teleoperation With Bounded Control. IEEE Transactions on Control Systems Technology, 2019, 27, 2351-2360.	3.2	12
50	Lyapunov-based cooperative avoidance control for multiple Lagrangian systems with bounded sensing uncertainties. , 2011, , .		11
51	Hysteresis Switching Control of the Ćuk Converter. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2048-2061.	3.5	11
52	Hysteresis Switching Control of the Ćuk Converter Operating in Discontinuous Conduction Modes. IEEE Transactions on Circuits and Systems II: Express Briefs, 2017, 64, 1077-1081.	2.2	10
53	Guaranteed Collision Avoidance Based on Line-of-Sight Angle and Time-to-Collision. , 2018, , .		9
54	Vision-based dynamic coverage control for nonholonomic agents. , 2014, , .		8

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55	Cooperative Avoidance Control With Velocity-Based Detection Regions. , 2020, 4, 432-437.		7
56	Supervised coverage control with guaranteed collision avoidance and proximity maintenance. , 2013, , .		6
57	Collision avoidance based on line-of-sight angle. , 2015, , .		6
58	Controlling the Ćuk Converter Using Polytopic Lyapunov Functions. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1678-1682.	2.2	6
59	Collision Avoidance Based on Line-of-Sight Angle. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 89, 139-153.	2.0	6
60	Long-Short Term Memory Neural Network Stability and Stabilization using Linear Matrix Inequalities. , 2019, , .		6
61	Avoidance Control with Relative Velocity Information for Lagrangian Dynamics. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 99, 229-244.	2.0	6
62	Consensus Based Overlapping Decentralized Estimator. Proceedings of the American Control Conference, 2007, , .	0.0	5
63	Robust and Safe Coordination of Multiple Robotic Manipulators. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 90, 419-435.	2.0	5
64	A consensus based overlapping decentralized estimator in lossy networks: Stability and denoising effects. , 2008, , .		4
65	Computational receding horizon approach to safe trajectory tracking. Integrated Computer-Aided Engineering, 2008, 15, 149-161.	2.5	3
66	Decentralized overlapping tracking control of a formation of autonomous unmanned vehicles. , 2009, , .		3
67	A modified contractive model predictive control approach. , 2009, , .		3
68	Decentralized consensus based control methodology for vehicle formations in air and deep space. , 2010, , .		3
69	Cooperative collision-free control of Lagrangian multi-agent formations. , 2011, , .		3
70	Some Local Stability Properties of an Autonomous Long Short-Term Memory Neural Network Model. , 2018, , .		3
71	Global Asymptotic Stability and Stabilization of Long Short-Term Memory Neural Networks with Constant Weights and Biases. Journal of Optimization Theory and Applications, 2019, 181, 231-243.	0.8	3
72	Safe trajectory tracking for the two-aircraft system. , 2007, , .		2

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73	Consensus based multi-agent control structures. , 2008, , .		2
74	Decentralized identification for errors-in-variables systems based on a consensus algorithm. , 2011, , .		2
75	Vision Based Collision Avoidance For Multi-Agent Systems Using Avoidance Functions. , 2020, , .		2
76	Stochastic Learning Rate With Memory: Optimization in the Stochastic Approximation and Online Learning Settings. , 2023, 7, 419-424.		2
77	Constrained orbital intercept-evasion. Proceedings of SPIE, 2014, , .	0.8	1
78	Space collision threat mitigation. Proceedings of SPIE, 2014, , .	0.8	1
79	Lyapunov Characterization and Analysis of the Operating Modes of the AC–DC Ćuk Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1318-1328.	3.7	1
80	Hysteresis Control of the Pseudo Boost PFC Converter. , 2020, , .		1
81	Stability of Gated Recurrent Unit Neural Networks: Convex Combination Formulation Approach. Journal of Optimization Theory and Applications, 2021, 188, 291-306.	0.8	1
82	Motion Information Based Avoidance Control for 3-D Multi-agent Systems. Journal of the Franklin Institute, 2021, 358, 9621-9621.	1.9	1
83	Control of dynamical systems with discrete and uncertain observations. Discrete and Continuous Dynamical Systems, 2015, 35, 4665-4681.	0.5	1
84	Receding horizon control and coordination of multi‐agent systems using polynomial expansion. Asian Journal of Control, 2022, 24, 2901-2915.	1.9	1
85	Multiattribute utility copulas for multiobjective control. , 2013, , .		0
86	Achieving Multiple Objectives with Limited Resources: Using Utility Theory and Control Theory. , 2017, , 427-444.		0
87	Cooperative Avoidance Control with Relative Velocity Information and Collision Sector Functions for Car-like Robots*. , 2020, , .		0
88	Collision Avoidance Control with Motion Information for Multiple Tractor-trailer Vehicles. , 2021, , .		0
89	Distributed Control of Robot Swarms. , 2020, , 1450-1488.		0
90	Dynamically Computing Adversarial Perturbations for Recurrent Neural Networks. IEEE Transactions on Control Systems Technology, 2022, 30, 2615-2629.	3.2	0

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91	A Formal Characterization of Activation Functions in Deep Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 2153-2166.	7.2	0