Herbert G Tanner

List of Publications by Year
in descending order

76 papers	821 citations	759233 12 h-index	610901 24 g-index
77 all docs	77 docs citations	77 times ranked	642 citing authors

#	Article	IF	Citations
1	Hybrid Control for Connectivity Preserving Flocking. IEEE Transactions on Automatic Control, 2009, 54, 2869-2875.	5.7	187
2	Hybrid Potential Field Based Control of Differential Drive Mobile Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 68, 307-322.	3.4	40
3	Multiagent Navigation Functions Revisited. IEEE Transactions on Robotics, 2012, 28, 1346-1359.	10.3	40
4	Analysis of Ground Effect for Small-Scale UAVs in Forward Flight. IEEE Robotics and Automation Letters, 2019, 4, 3860-3867.	5.1	38
5	Randomized Receding Horizon Navigation. IEEE Transactions on Automatic Control, 2010, 55, 2640-2644.	5.7	28
6	GEARing smart environments for pediatric motor rehabilitation. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 16.	4.6	26
7	Probabilistically valid stochastic extensions of deterministic models for systems with uncertainty. International Journal of Robotics Research, 2015, 34, 1278-1295.	8.5	25
8	Networked Decision Making for Poisson Processes With Applications to Nuclear Detection. IEEE Transactions on Automatic Control, 2014, 59, 193-198.	5.7	23
9	Novel Imaging Modalities Shedding Light on Plant Biology: Start Small and Grow Big. Annual Review of Plant Biology, 2020, 71, 789-816.	18.7	22
10	Planning with the STAR(s). , 2014, , .		21
11	Error probability bounds for nuclear detection: Improving accuracy through controlled mobility. Automatica, 2014, 50, 2470-2481.	5.0	18
12	Randomized model predictive control for robot navigation. , 2009, , .		16
13	Control of nonholonomic systems using reference vector fields. , 2011, , .		16
14	Constrained decision-making for low-count radiation detection by mobile sensors. Autonomous Robots, 2015, 39, 519-536.	4.8	16
15	Multiple brace root phenotypes promote anchorage and limit root lodging in maize. Plant, Cell and Environment, 2022, 45, 1573-1583.	5.7	16
16	Navigation Functions With Time-Varying Destination Manifolds in Star Worlds. IEEE Transactions on Robotics, 2019, 35, 35-48.	10.3	15
17	Stochastic receding horizon control for robots with probabilistic state constraints. , 2012, , .		12
18	Probability of success in stochastic robot navigation with state feedback. , 2011, , .		11

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19	A switching kinematic model for an octapedal robot. , 2012, , .		11
20	Identifying sea scallops from benthic camera images. Limnology and Oceanography: Methods, 2014, 12, 680-693.	2.0	11
21	A Navigation and Control Strategy for Miniature Legged Robots. IEEE Transactions on Robotics, 2017, 33, 214-219.	10.3	11
22	Learning models of human-robot interaction from small data. , 2017, 2017, 223-228.		10
23	Low-Range Interaction Periodic Rendezvous Along Lagrangian Coherent Structures. , 2019, , .		10
24	Dipole-like fields for stabilization of systems with Pfaffian constraints. , 2010, , .		9
25	Adaptive Symbolic Control for Finite-State Transition Systems With Grammatical Inference. IEEE Transactions on Automatic Control, 2014, 59, 505-511.	5.7	9
26	INFORMATION SURFING FOR RADIATION MAP BUILDING. International Journal of Robotics and Automation, 2011, 26, .	0.1	9
27	Symbolic planning and control using game theory and grammatical inference. Engineering Applications of Artificial Intelligence, 2015, 37, 378-391.	8.1	8
28	Mobile Radiation Source Interception by Aerial Robot Swarms. , 2019, , .		8
29	Navigation Functions with non-Point Destinations and Moving Obstacles. , 2020, , .		8
30	Synchronous Rendezvous for Networks of Active Drifters in Gyre Flows. Springer Proceedings in Advanced Robotics, 2019, , 413-425.	1.3	8
31	Finite abstractions for hybrid systems with stable continuous dynamics. Discrete Event Dynamic Systems: Theory and Applications, 2012, 22, 83-99.	1.5	7
32	Probabilistic validation of a stochastic kinematic model for an eight-legged robot. , 2013, , .		7
33	Decision making in sensor networks observing poisson processes. , 2013, , .		7
34	Concurrent multiâ€agent systems with temporal logic objectives: game theoretic analysis and planning through negotiation. IET Control Theory and Applications, 2015, 9, 465-474.	2.1	7
35	Reactive motion planning for temporal logic tasks without workspace discretization. , 2019, , .		7
36	Stochastic behavior of robots that navigate by interacting with their environment. , 2016, , .		6

#	Article	IF	Citations
37	Synchronous Rendezvous for Periodically Orbiting Vehicles with Very-Low-Range Interactions. , 2018, , .		6
38	(Sub)regular robotic languages. , 2011, , .		5
39	Optimal Navigation for Vehicles With Stochastic Dynamics. IEEE Transactions on Control Systems Technology, 2015, 23, 2003-2009.	5.2	5
40	Active sensor networks for nuclear detection. , 2015, , .		5
41	Reactive Receding Horizon Planning and Control for Quadrotors with Limited On-Board Sensing. , 2020, , .		5
42	Automated detection of scallops in their natural environment. , 2013, , .		4
43	Hierarchical control via approximate simulation and feedback linearization. , 2013, , .		4
44	Error probabilities and threshold selection in networked nuclear detection. , 2013, , .		4
45	Navigation of miniature legged robots using a new template. , 2015, , .		4
46	Controlled Mobile Radiation Detection Under Stochastic Uncertainty. , 2017, 1, 194-199.		4
47	Learning option MDPs from small data. , 2018, , .		4
48	Bottom-Up Symbolic Control: Attractor-Based Planning and Behavior Synthesis. IEEE Transactions on Automatic Control, 2013, 58, 3142-3155.	5.7	3
49	Adaptive planning in unknown environments using grammatical inference. , 2013, , .		3
50	Information-sharing and decision-making in networks of radiation detectors. Autonomous Robots, 2018, 42, 1715-1730.	4.8	3
51	Statistical Relational Learning With Unconventional String Models. Frontiers in Robotics and AI, 2018, 5, 76.	3.2	3
52	A New Sample-Efficient PAC Reinforcement Learning Algorithm. , 2020, , .		3
53	Exact Reactive Receding Horizon Motion Planning for Aerial Vehicles. , 2021, , .		3
54	Modeling multi-agent systems with hybrid interacting dynamics. , 2009, , .		2

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55	Optimal planning on register automata. , 2012, , .		2
56	Control of stochastic unicycle-type robots. , 2015, , .		2
57	Dynamics-compatible potential fields using stochastic perturbations. , 2015, , .		2
58	Resilience through Learning in Multi-Agent Cyber-Physical Systems. Frontiers in Robotics and AI, 2016, 3, .	3.2	2
59	Integration of deterministic inference with formal synthesis for control under uncertainty. , 2016, , .		2
60	On the Hybrid Kinematics of Tethered Mobile Robots. , 2019, , .		2
61	Motion Planning and Visual-Inertial Target Tracking for UAV-based Radiation Detection. , 2020, , .		2
62	Nonlinear Synchronization Control for Short-Range Mobile Sensors Drifting in Geophysical Flows. , 2020, , .		2
63	Exact Decentralized Receding Horizon Planning for Multiple Aerial Vehicles. , 2021, , .		2
64	Non-Smooth Control Barrier Navigation Functions for STL Motion Planning. Frontiers in Robotics and AI, 2022, 9, 782783.	3.2	2
65	Emulating Nuclear Emissions With a Pulsed Laser. IEEE Transactions on Automation Science and Engineering, 2014, 11, 317-323.	5.2	1
66	Temporal logic control under incomplete or conflicting information. , 2017, , .		1
67	Distance-based Global Descriptors for Multi-view Object Recognition. Robotica, 2020, 38, 106-117.	1.9	1
68	Synchronization of Geophysically-Driven Oscillators with Short-Range Interaction. IEEE Transactions on Automatic Control, 2021, , 1-1.	5.7	1
69	Resilient Supervisory Multiagent Systems. IEEE Transactions on Robotics, 2022, 38, 229-243.	10.3	1
70	A Hybrid PAC Reinforcement Learning Algorithm for Human-Robot Interaction. Frontiers in Robotics and AI, 2022, 9, 797213.	3.2	1
71	Topology optimization in cellular neural networks. , 2010, , .		0
72	Bounding the uncertainity in nonlinear robust model predictive control using sphere covering. , 2011, , .		0

#	Article	IF	Citations
73	Programming by demonstration for Locally k-Testable tasks. , 2016, , .		0
74	Data-Driven Abstractions for Robots With Stochastic Dynamics. IEEE Transactions on Robotics, 2022, 38, 1686-1702.	10.3	0
75	Development and Testing of an Aerial Radiation Detection System. IEEE Sensors Journal, 2021, 21, 28009-28016.	4.7	0
76	Probabilistic road geometry estimation using a millimetre-wave radar. , 2011, , .		0