

Karthik Elamvazhuthi

List of Publications by Year in descending order

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Version: 2024-02-01

20
papers

229
citations

1478505

6
h-index

1588992

8
g-index

20
all docs

20
docs citations

20
times ranked

150
citing authors

#	ARTICLE	IF	CITATIONS
1	Mean-field models in swarm robotics: a survey. <i>Bioinspiration and Biomimetics</i> , 2020, 15, 015001.	2.9	55
2	PDE-based optimization for stochastic mapping and coverage strategies using robotic ensembles. <i>Automatica</i> , 2018, 95, 356-367.	5.0	25
3	Optimal control of stochastic coverage strategies for robotic swarms. , 2015, , .		22
4	Decentralized stochastic control of robotic swarm density: Theory, simulation, and experiment. , 2017, , .		18
5	Bilinear Controllability of a Class of Advectionâ€“Diffusionâ€“Reaction Systems. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 2282-2297.	5.7	16
6	Optimal Transport Over Deterministic Discrete-Time Nonlinear Systems Using Stochastic Feedback Laws. , 2019, 3, 168-173.		12
7	Controllability and Stabilization for Herding a Robotic Swarm Using a Leader: A Mean-Field Approach. <i>IEEE Transactions on Robotics</i> , 2021, 37, 418-432.	10.3	12
8	Coverage and field estimation on bounded domains by diffusive swarms. , 2016, , .		11
9	Mean-field controllability and decentralized stabilization of Markov chains. , 2017, , .		11
10	Performance Bounds on Spatial Coverage Tasks by Stochastic Robotic Swarms. <i>IEEE Transactions on Automatic Control</i> , 2018, 63, 1563-1578.	5.7	11
11	Mean-Field Stabilization of Markov Chain Models for Robotic Swarms: Computational Approaches and Experimental Results. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 1985-1992.	5.1	10
12	Nonlinear Generalizations of Diffusion-Based Coverage by Robotic Swarms. , 2018, , .		6
13	Mean-Field Stabilization of Robotic Swarms to Probability Distributions with Disconnected Supports. , 2018, , .		5
14	Stabilization of Nonlinear Discrete-Time Systems to Target Measures Using Stochastic Feedback Laws. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 1957-1972.	5.7	4
15	Fastest Mixing Markov Chain on a Compact Manifold. , 2019, , .		3
16	Confinement control of double integrators using partially periodic leader trajectories. , 2016, , .		2
17	Controllability to equilibria of the 1-D fokker-planck equation with zero-flux boundary condition. , 2017, , .		2
18	Controllability and decentralized stabilization of the Kolmogorov forward equation for Markov chains. <i>Automatica</i> , 2021, 124, 109351.	5.0	2

#	ARTICLE	IF	CITATIONS
19	Spectral Gap Optimization of Divergence Type Diffusion Operators. , 2020, , .		1
20	Neural ODE Control for Trajectory Approximation of Continuity Equation. , 2022, 6, 3152-3157.		1