Ioannis Havoutis

List of Publications by Year
in descending order

53	1,093	759233 12	752698 20
papers	citations	h-index	g-index

53	53	53	746
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Where Should I Look? Optimized Gaze Control for Whole-Body Collision Avoidance in Dynamic Environments. IEEE Robotics and Automation Letters, 2022, 7, 1095-1102.	5.1	4
2	Reaching Through Latent Space: From Joint Statistics to Path Planning in Manipulation. IEEE Robotics and Automation Letters, 2022, 7, 5334-5341.	5.1	3
3	RLOC: Terrain-Aware Legged Locomotion Using Reinforcement Learning and Optimal Control. IEEE Transactions on Robotics, 2022, 38, 2908-2927.	10.3	28
4	Semantically Grounded Object Matching for Robust Robotic Scene Rearrangement. , 2022, , .		11
5	Next Steps: Learning a Disentangled Gait Representation for Versatile Quadruped Locomotion. , 2022, , .		1
6	Memory Clustering Using Persistent Homology for Multimodality- and Discontinuity-Sensitive Learning of Optimal Control Warm-Starts. IEEE Transactions on Robotics, 2021, 37, 1649-1660.	10.3	8
7	HapFIC: An Adaptive Force/Position Controller for Safe Environment Interaction in Articulated Systems. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1432-1440.	4.9	3
8	Real-Time Trajectory Adaptation for Quadrupedal Locomotion using Deep Reinforcement Learning. , 2021, , .		12
9	Sparsity-Inducing Optimal Control via Differential Dynamic Programming. , 2021, , .		3
10	Introspective Visuomotor Control: Exploiting Uncertainty in Deep Visuomotor Control for Failure Recovery. , 2021, , .		2
11	Inverse Dynamics vs. Forward Dynamics in Direct Transcription Formulations for Trajectory Optimization. , 2021, , .		5
12	Receding-Horizon Perceptive Trajectory Optimization for Dynamic Legged Locomotion with Learned Initialization. , 2021, , .		18
13	A Passive Navigation Planning Algorithm for Collision-free Control of Mobile Robots. , 2021, , .		6
14	Simultaneous Scene Reconstruction and Whole-Body Motion Planning for Safe Operation in Dynamic Environments. , 2021, , .		5
15	Rapid Stability Margin Estimation for Contact-Rich Locomotion. , 2021, , .		2
16	Rapid Convex Optimization of Centroidal Dynamics using Block Coordinate Descent. , 2021, , .		5
17	Legged Robots for Autonomous Inspection and Monitoring of Offshore Assets. , 2020, , .		4
18	Guided Constrained Policy Optimization for Dynamic Quadrupedal Robot Locomotion. IEEE Robotics and Automation Letters, 2020, 5, 3642-3649.	5.1	28

#	Article	IF	Citations
19	Motion Planning for Quadrupedal Locomotion: Coupled Planning, Terrain Mapping, and Whole-Body Control. IEEE Transactions on Robotics, 2020, 36, 1635-1648.	10.3	66
20	GaitMesh: Controller-Aware Navigation Meshes for Long-Range Legged Locomotion Planning in Multi-Layered Environments. IEEE Robotics and Automation Letters, 2020, 5, 3596-3603.	5.1	8
21	First Steps: Latent-Space Control with Semantic Constraints for Quadruped Locomotion. , 2020, , .		4
22	Multi-controller multi-objective locomotion planning for legged robots. , 2019, , .		7
23	Learning from demonstration for semi-autonomous teleoperation. Autonomous Robots, 2019, 43, 713-726.	4.8	33
24	Contact Planning for the ANYmal Quadruped Robot Using an Acyclic Reachability-Based Planner. Lecture Notes in Computer Science, 2019, , 275-287.	1.3	14
25	Towards Generating Simulated Walking Motion Using Position Based Deep Reinforcement Learning. Lecture Notes in Computer Science, 2019, , 467-470.	1.3	3
26	Programming by Demonstration for Shared Control With an Application in Teleoperation. IEEE Robotics and Automation Letters, 2018, 3, 1848-1855.	5.1	42
27	High-slope terrain locomotion for torque-controlled quadruped robots. Autonomous Robots, 2017, 41, 259-272.	4.8	143
28	An Approach for Imitation Learning on Riemannian Manifolds. IEEE Robotics and Automation Letters, 2017, 2, 1240-1247.	5.1	67
29	Trajectory and foothold optimization using low-dimensional models for rough terrain locomotion. , 2017, , .		61
30	Whole-body trajectory optimization for non-periodic dynamic motions on quadrupedal systems. , 2017, , .		5
31	Learning task-space synergies using Riemannian geometry. , 2017, , .		4
32	Supervisory teleoperation with online learning and optimal control. , 2017, , .		17
33	Learning assistive teleoperation behaviors from demonstration. , 2016, , .		9
34	Dexterous Undersea Interventions with Far Distance Onshore Supervision: the DexROV Project. IFAC-PapersOnLine, 2016, 49, 414-419.	0.9	18
35	Hierarchical planning of dynamic movements without scheduled contact sequences. , 2016, , .		26
36	Pattern generation and compliant feedback control for quadrupedal dynamic trot-walking locomotion: experiments on RoboCat-1 and HyQ. Autonomous Robots, 2015, 38, 415-437.	4.8	17

#	Article	IF	Citations
37	Planning and execution of dynamic whole-body locomotion for a hydraulic quadruped on challenging terrain. , 2015, , .		83
38	On-line and on-board planning and perception for quadrupedal locomotion. , 2015, , .		26
39	Path planning with force-based foothold adaptation and virtual model control for torque controlled quadruped robots. , 2014, , .		52
40	Quadruped robot trotting over irregular terrain assisted by stereo-vision. Intelligent Service Robotics, 2014, 7, 67-77.	2.6	31
41	Motion planning and reactive control on learnt skill manifolds. International Journal of Robotics Research, 2013, 32, 1120-1150.	8.5	14
42	Quadrupedal trotting with active compliance. , 2013, , .		33
43	Motion Generation with Geodesic Paths on Learnt Skill Manifolds. Cognitive Systems Monographs, 2013, , 43-51.	0.1	0
44	A comparison of search-based planners for a legged robot. , 2013, , .		10
45	Vision enhanced reactive locomotion control for trotting on rough terrain. , 2013, , .		10
46	Dynamic trot-walking with the hydraulic quadruped robot — HyQ: Analytical trajectory generation and active compliance control. , 2013, , .		46
47	Onboard perception-based trotting and crawling with the Hydraulic Quadruped Robot (HyQ). , 2013, , .		36
48	LOCAL REFLEX GENERATION FOR OBSTACLE NEGOTIATION IN QUADRUPEDAL LOCOMOTION. , 2013, , .		32
49	INVERSE DYNAMICS FOR A QUADRUPED ROBOT LOCOMOTING ALONG SLIPPERY SURFACES. , 2013, , .		8
50	Geodesic trajectory generation on learnt skill manifolds. , 2010, , .		4
51	Constrained geodesic trajectory generation on learnt skill manifolds. , 2010, , .		2
52	Motion Synthesis through Randomized Exploration on Submanifolds of Configuration Space. Lecture Notes in Computer Science, 2010, , 92-103.	1.3	3
53	Synthesising Novel Movements through Latent Space Modulation of Scalable Control Policies. Lecture Notes in Computer Science, 2008, , 199-209.	1.3	11