Ioannis Havoutis

List of Publications by Year
in descending order

53 papers	1,093 citations	759233 12 h-index	752698 20 g-index
53 all docs	53 docs citations	53 times ranked	746 citing authors

#	Article	IF	Citations
1	High-slope terrain locomotion for torque-controlled quadruped robots. Autonomous Robots, 2017, 41, 259-272.	4.8	143
2	Planning and execution of dynamic whole-body locomotion for a hydraulic quadruped on challenging terrain. , 2015, , .		83
3	An Approach for Imitation Learning on Riemannian Manifolds. IEEE Robotics and Automation Letters, 2017, 2, 1240-1247.	5.1	67
4	Motion Planning for Quadrupedal Locomotion: Coupled Planning, Terrain Mapping, and Whole-Body Control. IEEE Transactions on Robotics, 2020, 36, 1635-1648.	10.3	66
5	Trajectory and foothold optimization using low-dimensional models for rough terrain locomotion. , 2017, , .		61
6	Path planning with force-based foothold adaptation and virtual model control for torque controlled quadruped robots. , 2014, , .		52
7	Dynamic trot-walking with the hydraulic quadruped robot — HyQ: Analytical trajectory generation and active compliance control. , 2013, , .		46
8	Programming by Demonstration for Shared Control With an Application in Teleoperation. IEEE Robotics and Automation Letters, 2018, 3, 1848-1855.	5.1	42
9	Onboard perception-based trotting and crawling with the Hydraulic Quadruped Robot (HyQ). , 2013, , .		36
10	Quadrupedal trotting with active compliance. , 2013, , .		33
11	Learning from demonstration for semi-autonomous teleoperation. Autonomous Robots, 2019, 43, 713-726.	4.8	33
12	LOCAL REFLEX GENERATION FOR OBSTACLE NEGOTIATION IN QUADRUPEDAL LOCOMOTION. , 2013, , .		32
13	Quadruped robot trotting over irregular terrain assisted by stereo-vision. Intelligent Service Robotics, 2014, 7, 67-77.	2.6	31
14	Guided Constrained Policy Optimization for Dynamic Quadrupedal Robot Locomotion. IEEE Robotics and Automation Letters, 2020, 5, 3642-3649.	5.1	28
15	RLOC: Terrain-Aware Legged Locomotion Using Reinforcement Learning and Optimal Control. IEEE Transactions on Robotics, 2022, 38, 2908-2927.	10.3	28
16	On-line and on-board planning and perception for quadrupedal locomotion. , 2015, , .		26
17	Hierarchical planning of dynamic movements without scheduled contact sequences. , 2016, , .		26
18	Dexterous Undersea Interventions with Far Distance Onshore Supervision: the DexROV Project. IFAC-PapersOnLine, 2016, 49, 414-419.	0.9	18

#	Article	IF	Citations
19	Receding-Horizon Perceptive Trajectory Optimization for Dynamic Legged Locomotion with Learned Initialization. , 2021, , .		18
20	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
21	Supervisory teleoperation with online learning and optimal control. , 2017, , .		17
22	Motion planning and reactive control on learnt skill manifolds. International Journal of Robotics Research, 2013, 32, 1120-1150.	8.5	14
23	Contact Planning for the ANYmal Quadruped Robot Using an Acyclic Reachability-Based Planner. Lecture Notes in Computer Science, 2019, , 275-287.	1.3	14
24	Real-Time Trajectory Adaptation for Quadrupedal Locomotion using Deep Reinforcement Learning. , 2021, , .		12
25	Synthesising Novel Movements through Latent Space Modulation of Scalable Control Policies. Lecture Notes in Computer Science, 2008, , 199-209.	1.3	11
26	Semantically Grounded Object Matching for Robust Robotic Scene Rearrangement. , 2022, , .		11
27	A comparison of search-based planners for a legged robot. , 2013, , .		10
28	Vision enhanced reactive locomotion control for trotting on rough terrain. , 2013, , .		10
29	Learning assistive teleoperation behaviors from demonstration. , 2016, , .		9
30	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
31	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
32	INVERSE DYNAMICS FOR A QUADRUPED ROBOT LOCOMOTING ALONG SLIPPERY SURFACES. , 2013, , .		8
33	Multi-controller multi-objective locomotion planning for legged robots. , 2019, , .		7
34	A Passive Navigation Planning Algorithm for Collision-free Control of Mobile Robots. , 2021, , .		6
35	Whole-body trajectory optimization for non-periodic dynamic motions on quadrupedal systems. , 2017, , .		5
36	Inverse Dynamics vs. Forward Dynamics in Direct Transcription Formulations for Trajectory Optimization. , 2021, , .		5

#	Article	IF	Citations
37	Simultaneous Scene Reconstruction and Whole-Body Motion Planning for Safe Operation in Dynamic Environments. , 2021, , .		5
38	Rapid Convex Optimization of Centroidal Dynamics using Block Coordinate Descent. , 2021, , .		5
39	Geodesic trajectory generation on learnt skill manifolds. , 2010, , .		4
40	Learning task-space synergies using Riemannian geometry. , 2017, , .		4
41	Legged Robots for Autonomous Inspection and Monitoring of Offshore Assets. , 2020, , .		4
42	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
43	First Steps: Latent-Space Control with Semantic Constraints for Quadruped Locomotion. , 2020, , .		4
44	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
45	Motion Synthesis through Randomized Exploration on Submanifolds of Configuration Space. Lecture Notes in Computer Science, 2010, , 92-103.	1.3	3
46	Sparsity-Inducing Optimal Control via Differential Dynamic Programming. , 2021, , .		3
47	Towards Generating Simulated Walking Motion Using Position Based Deep Reinforcement Learning. Lecture Notes in Computer Science, 2019, , 467-470.	1.3	3
48	Reaching Through Latent Space: From Joint Statistics to Path Planning in Manipulation. IEEE Robotics and Automation Letters, 2022, 7, 5334-5341.	5.1	3
49	Constrained geodesic trajectory generation on learnt skill manifolds. , 2010, , .		2
50	Introspective Visuomotor Control: Exploiting Uncertainty in Deep Visuomotor Control for Failure Recovery. , 2021, , .		2
51	Rapid Stability Margin Estimation for Contact-Rich Locomotion. , 2021, , .		2
52	Next Steps: Learning a Disentangled Gait Representation for Versatile Quadruped Locomotion. , 2022, , .		1
53	Motion Generation with Geodesic Paths on Learnt Skill Manifolds. Cognitive Systems Monographs, 2013, , 43-51.	0.1	0