

# Ioannis Poulakakis

## List of Publications by Year in descending order

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45  
papers

1,369  
citations

840776

11  
h-index

1199594

12  
g-index

46  
all docs

46  
docs citations

46  
times ranked

907  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Compliant Hybrid Zero Dynamics Controller for Stable, Efficient and Fast Bipedal Walking on MABEL. International Journal of Robotics Research, 2011, 30, 1170-1193.	8.5	317
2	The Spring Loaded Inverted Pendulum as the Hybrid Zero Dynamics of an Asymmetric Hopper. IEEE Transactions on Automatic Control, 2009, 54, 1779-1793.	5.7	213
3	Embedding active force control within the compliant hybrid zero dynamics to achieve stable, fast running on MABEL. International Journal of Robotics Research, 2013, 32, 324-345.	8.5	123
4	A Switchable Parallel Elastic Actuator and its Application to Leg Design for Running Robots. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2681-2692.	5.8	37
5	Composing limit cycles for motion planning of 3D bipedal walkers. , 2016, , .		34
6	Switched Systems With Multiple Equilibria Under Disturbances: Boundedness and Practical Stability. IEEE Transactions on Automatic Control, 2020, 65, 2371-2386.	5.7	26
7	Information Centrality and Ordering of Nodes for Accuracy in Noisy Decision-Making Networks. IEEE Transactions on Automatic Control, 2016, 61, 1040-1045.	5.7	25
8	Input-to-State Stability of Periodic Orbits of Systems With Impulse Effects via Poincaré Analysis. IEEE Transactions on Automatic Control, 2019, 64, 4583-4598.	5.7	24
9	Networked Decision Making for Poisson Processes With Applications to Nuclear Detection. IEEE Transactions on Automatic Control, 2014, 59, 193-198.	5.7	23
10	Modeling and control of the monopedal robot Thumper. , 2009, , .		22
11	Planning with the STAR(s). , 2014, , .		21
12	Quadrupedal running with a flexible torso: control and speed transitions with sums-of-squares verification. Artificial Life and Robotics, 2016, 21, 384-392.	1.2	21
13	Passive quadrupedal bounding with a segmented flexible torso. , 2012, , .		19
14	On the adaptation of dynamic walking to persistent external forcing using hybrid zero dynamics control. , 2015, , .		18
15	Generation of and switching among limit-cycle bipedal walking gaits. , 2017, , .		17
16	On the control of gait transitions in quadrupedal running. , 2015, , .		16
17	Monopedal running control: SLIP embedding and virtual constraint controllers. , 2007, , .		14
18	Integrating dynamic walking and arm impedance control for cooperative transportation. , 2015, , .		12

#	ARTICLE	IF	CITATIONS
19	Almost driftless navigation of 3D limit-cycle walking bipeds. , 2017, , .		12
20	A switching kinematic model for an octapedal robot. , 2012, , .		11
21	A Navigation and Control Strategy for Miniature Legged Robots. IEEE Transactions on Robotics, 2017, 33, 214-219.	10.3	11
22	Spring Loaded Inverted Pendulum embedding: Extensions toward the control of compliant running robots. , 2010, , .		10
23	On the energetics of quadrupedal bounding with and without torso compliance. , 2014, , .		10
24	Local input-to-state stability of dynamic walking under persistent external excitation using hybrid zero dynamics. , 2016, , .		10
25	Adaptation of limit-cycle walkers for collaborative tasks: A supervisory switching control approach. , 2017, , .		10
26	Safe Adaptive Switching among Dynamical Movement Primitives: Application to 3D Limit-Cycle Walkers. , 2019, , .		10
27	Coupled stochastic differential equations and collective decision making in the Two-Alternative Forced-Choice task. , 2010, , .		9
28	Probabilistic validation of a stochastic kinematic model for an eight-legged robot. , 2013, , .		7
29	Decision making in sensor networks observing poisson processes. , 2013, , .		7
30	Steering a 3D limit-cycle walker for collaboration with a leader. , 2017, , .		7
31	Passive stability and control of quadrupedal bounding with a flexible torso. , 2013, , .		6
32	SPEAR: A monopedal robot with Switchable Parallel Elastic actuation. , 2015, , .		5
33	Active sensor networks for nuclear detection. , 2015, , .		5
34	Error probabilities and threshold selection in networked nuclear detection. , 2013, , .		4
35	Navigation of miniature legged robots using a new template. , 2015, , .		4
36	Practical Stability of Switched Systems With Multiple Equilibria Under Disturbances. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
37	Design and experimental implementation of a compliant hybrid zero dynamics controller for walking on MABEL. , 2010, , .		3
38	Active compliance hybrid zero dynamics control of bounding on HyQ. , 2015, , .		3
39	Node certainty in collective decision making. , 2012, , .		2
40	On the energetics of a switchable parallel elastic actuator design for monopedal running. , 2015, , .		2
41	An Adaptive Supervisory Control Approach to Dynamic Locomotion Under Parametric Uncertainty. , 2020, , .		2
42	Interactive Dynamic Walking: Learning Gait Switching Policies With Generalization Guarantees. IEEE Robotics and Automation Letters, 2022, 7, 4149-4156.	5.1	1
43	On the effects of design parameters on quadruped robot gaits. , 2015, , .		0
44	On the stability of symmetric quadrupedal bounding gaits via factored Poincaré maps. , 2016, , .		0
45	Robustness of Periodic Orbits of Impulsive Systems à la Poincaré. , 2019, , .		0