Hartmut Geyer

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8730926/publications.pdf

Version: 2024-02-01

51	3,927	430442	580395
papers	citations	18 h-index	25 g-index

52	52	52	2090
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compliant leg behaviour explains basic dynamics of walking and running. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2861-2867.	1.2	744
2	A Muscle-Reflex Model That Encodes Principles of Legged Mechanics Produces Human Walking Dynamics and Muscle Activities. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 263-273.	2.7	499
3	A movement criterion for running. Journal of Biomechanics, 2002, 35, 649-655.	0.9	410
4	Control of a Powered Ankleâ€“Foot Prosthesis Based on a Neuromuscular Model. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 164-173.	2.7	344
5	Swing-leg retraction: a simple control model for stable running. Journal of Experimental Biology, 2003, 206, 2547-2555.	0.8	316
6	Spring-mass running: simple approximate solution and application to gait stability. Journal of Theoretical Biology, 2005, 232, 315-328.	0.8	238
7	A neural circuitry that emphasizes spinal feedback generates diverse behaviours of human locomotion. Journal of Physiology, 2015, 593, 3493-3511.	1.3	216
8	Positive force feedback in bouncing gaits?. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 2173-2183.	1.2	210
9	Predictive neuromechanical simulations indicate why walking performance declines with ageing. Journal of Physiology, 2018, 596, 1199-1210.	1.3	94
10	Toward Balance Recovery With Leg Prostheses Using Neuromuscular Model Control. IEEE Transactions on Biomedical Engineering, 2016, 63, 904-913.	2.5	87
11	The 3-D Springâ€“Mass Model Reveals a Time-Based Deadbeat Control for Highly Robust Running and Steering in Uncertain Environments. IEEE Transactions on Robotics, 2013, 29, 1114-1124.	7.3	82
12	An Overview on Principles for Energy Efficient Robot Locomotion. Frontiers in Robotics and AI, 2018, 5, 129.	2.0	60
13	Walking and Running with Passive Compliance: Lessons from Engineering: A Live Demonstration of the ATRIAS Biped. IEEE Robotics and Automation Magazine, 2018, 25, 23-39.	2.2	53
14	Evaluation of a Neuromechanical Walking Control Model Using Disturbance Experiments. Frontiers in Computational Neuroscience, 2017, 11, 15.	1.2	52
15	Robust and Adaptive Lower Limb Prosthesis Stance Control via Extended Kalman Filter-Based Gait Phase Estimation. IEEE Robotics and Automation Letters, 2019, 4, 3129-3136.	3.3	49
16	Using Deep Reinforcement Learning to Learn High-Level Policies on the ATRIAS Biped. , 2019, , .		33
17	Bayesian Optimization Using Domain Knowledge on the ATRIAS Biped. , 2018, , .		32
18	Compact nonlinear springs with user defined torque-deflection profiles for series elastic actuators. , 2014, , .		29

#	Article	IF	Citations
19	Regulating speed and generating large speed transitions in a neuromuscular human walking model. , 2012, , .		28
20	Control and evaluation of series elastic actuators with nonlinear rubber springs. , 2015, , .		28
21	Dynamic bipedal locomotion over stochastic discrete terrain. International Journal of Robotics Research, 2018, 37, 1537-1553.	5.8	25
22	Robust swing leg placement under large disturbances. , 2012, , .		23
23	Objective Assessment of Spasticity With a Method Based on a Human Upper Limb Model. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1414-1423.	2.7	23
24	Experimental Evaluation of Deadbeat Running on the ATRIAS Biped. IEEE Robotics and Automation Letters, 2017, 2, 1085-1092.	3.3	22
25	Muscle-reflex control of robust swing leg placement. , 2013, , .		21
26	The Benefit of Combining Neuronal Feedback and Feed-Forward Control for Robustness in Step Down Perturbations of Simulated Human Walking Depends on the Muscle Function. Frontiers in Computational Neuroscience, 2018, 12, 80.	1.2	20
27	Robust spring mass model running for a physical bipedal robot. , 2015, , .		19
28	Touch-down angle control for spring-mass walking. , 2015, , .		17
29	A Sample-Efficient Black-Box Optimizer to Train Policies for Human-in-the-Loop Systems With User Preferences. IEEE Robotics and Automation Letters, 2017, 2, 993-1000.	3.3	17
30	Interactions Between Different Age-Related Factors Affecting Balance Control in Walking. Frontiers in Sports and Active Living, 2020, 2, 94.	0.9	13
31	Highly robust running of articulated bipeds in unobserved terrain. , 2014, , .		12
32	Generalization of a muscle-reflex control model to 3D walking. , 2013, 2013, 7463-6.		11
33	A Method for Online Optimization of Lower Limb Assistive Devices with High Dimensional Parameter Spaces. , 2018, , .		11
34	The energetic cost of adaptive feet in walking. , 2011, , .		9
35	Reactive balance control in walking based on a bipedal linear inverted pendulum model. , 2011, , .		9
36	Neuromuscular Models for Locomotion. , 2017, , 401-453.		9

#	Article	IF	Citations
37	A Neuro-Musculo-Skeletal Model of Human Standing Combining Muscle-Reflex Control and Virtual Model Control. , 2018, 2018, 5590-5593.		9
38	Toward a virtual neuromuscular control for robust walking in bipedal robots. , 2015, , .		8
39	Towards local reflexive control of a powered transfemoral prosthesis for robust amputee push and trip recovery. , 2014, , .		7
40	Toward Balance Recovery with Active Leg Prostheses Using Neuromuscular Model Control. Biosystems and Biorobotics, 2017, , 649-652.	0.2	7
41	A neuromuscular model of human locomotion combines spinal reflex circuits with voluntary movements. Scientific Reports, 2022, 12, 8189.	1.6	7
42	Integration of an adaptive swing control into a neuromuscular human walking model. , 2013, 2013, 4915-8.		6
43	Regulating speed in a neuromuscular human running model. , 2015, , .		6
44	Online Learning for Proactive Obstacle Avoidance with Powered Transfemoral Prostheses. , 2019, , .		4
45	Evaluation of decentralized reactive swing-leg control on a powered robotic leg. , 2015, , .		2
46	A model for the transfer of control from the brain to the spinal cord through synaptic learning. Journal of Computational Neuroscience, 2020, 48, 365-375.	0.6	2
47	Neuromuscular Control Models of Human Locomotion. , 2019, , 979-1007.		1
48	Comparison of Balance Recovery Among Current Control Strategies for Robotic Leg Prostheses. Biosystems and Biorobotics, 2022, , 63-67.	0.2	1
49	Comprehensive Swing Leg Motion Predictor for Steady and Transient Walking Conditions. , 2022, , .		1
50	Policy Decomposition: Approximate Optimal Control with Suboptimality Estimates. , 2021, , .		0
51	Neuromuscular Control Models of Human Locomotion. , 2017, , 1-30.		0