

# Alexander Sprwitz

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

30  
papers

961  
citations

13  
h-index

31  
g-index

33  
ext. papers

1,342  
ext. citations

5.1  
avg. IF

4.21  
L-index

#	Paper	IF	Citations
30	Towards dynamic trot gait locomotion: Design, control, and experiments with Cheetah-cub, a compliant quadruped robot. <i>International Journal of Robotics Research</i> , <b>2013</b> , 32, 932-950	5.7	252
29	Roombots: Reconfigurable Robots for Adaptive Furniture. <i>IEEE Computational Intelligence Magazine</i> , <b>2010</b> , 5, 20-32	5.6	152
28	ATRIAS: Design and validation of a tether-free 3D-capable spring-mass bipedal robot. <i>International Journal of Robotics Research</i> , <b>2016</b> , 35, 1497-1521	5.7	89
27	Learning to Move in Modular Robots using Central Pattern Generators and Online Optimization. <i>International Journal of Robotics Research</i> , <b>2008</b> , 27, 423-443	5.7	83
26	Roombots: A hardware perspective on 3D self-reconfiguration and locomotion with a homogeneous modular robot. <i>Robotics and Autonomous Systems</i> , <b>2014</b> , 62, 1016-1033	3.5	58
25	Exciting Engineered Passive Dynamics in a Bipedal Robot. <i>IEEE Transactions on Robotics</i> , <b>2015</b> , 31, 1244-1251	4.5	45
24	Passive compliant quadruped robot using Central Pattern Generators for locomotion control <b>2008</b> ,		44
23	Horse-like walking, trotting, and galloping derived from kinematic Motion Primitives (kMPs) and their application to walk/trot transitions in a compliant quadruped robot. <i>Biological Cybernetics</i> , <b>2013</b> , 107, 309-20	2.8	36
22	An Open Torque-Controlled Modular Robot Architecture for Legged Locomotion Research. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 3650-3657	4.2	34
21	Comparing the effect of different spine and leg designs for a small bounding quadruped robot <b>2015</b> ,		33
20	Spinal joint compliance and actuation in a simulated bounding quadruped robot. <i>Autonomous Robots</i> , <b>2017</b> , 41, 437-452	3	32
19	Modular control of limit cycle locomotion over unperceived rough terrain <b>2013</b> ,		21
18	Passive compliance for a RC servo-controlled bouncing robot. <i>Advanced Robotics</i> , <b>2006</b> , 20, 953-961	1.7	19
17	Series Elastic Behavior of Biarticular Muscle-Tendon Structure in a Robotic Leg. <i>Frontiers in Neurobotics</i> , <b>2019</b> , 13, 64	3.4	8
16	Scalable pneumatic and tendon driven robotic joint inspired by jumping spiders <b>2017</b> ,		8
15	Trunk pitch oscillations for energy trade-offs in bipedal running birds and robots. <i>Bioinspiration and Biomimetics</i> , <b>2020</b> , 15, 036013	2.6	6
14	Effective Viscous Damping Enables Morphological Computation in Legged Locomotion. <i>Frontiers in Robotics and AI</i> , <b>2020</b> , 7, 110	2.8	6

13	Distributed Online Learning of Central Pattern Generators in Modular Robots. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 402-412	0.9	5
12	Project course "Design of Mechatronic Systems" (ICM 2006) <b>2006</b> ,		4
11	A little damping goes a long way: a simulation study of how damping influences task-level stability in running. <i>Biology Letters</i> , <b>2020</b> , 16, 20200467	3.6	4
10	<b>2018</b> ,		4
9	Beyond Basins of Attraction: Quantifying Robustness of Natural Dynamics. <i>IEEE Transactions on Robotics</i> , <b>2019</b> , 35, 939-952	6.5	3
8	An easy to use bluetooth scatternet protocol for fast data exchange in wireless sensor networks and autonomous robots <b>2007</b> ,		3
7	Postural stability in human running with step-down perturbations: an experimental and numerical study. <i>Royal Society Open Science</i> , <b>2020</b> , 7, 200570	3.3	3
6	Trunk Pitch Oscillations for Joint Load Redistribution in Humans and Humanoid Robots <b>2019</b> ,		3
5	BirdBot achieves energy-efficient gait with minimal control using avian-inspired leg clutching.. <i>Science Robotics</i> , <b>2022</b> , 7, eabg4055	18.6	3
4	Learning from outside the viability kernel: Why we should build robots that can fall with grace <b>2018</b> ,		1
3	Hybrid Parallel Compliance Allows Robots to Operate With Sensorimotor Delays and Low Control Frequencies. <i>Frontiers in Robotics and AI</i> , <b>2021</b> , 8, 645748	2.8	1
2	3D Anatomy of the Quail Lumbosacral Spinal Canal-Implications for Putative Mechanosensory Function. <i>Integrative Organismal Biology</i> , <b>2020</b> , 2, obaa037	2.3	0
1	Virtual Point Control for Step-Down Perturbations and Downhill Slopes in Bipedal Running. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2020</b> , 8, 586534	5.8	