Robert J Full

List of Publications by Year
in descending order

53 papers	9,650 citations	249298 26 h-index	242451 47 g-index
54 all docs	54 docs citations	54 times ranked	8916 citing authors

#	Article	IF	Citations
1	How to use the Omni-Wrist III for dexterous motion: An exposition of the forward and inverse kinematic relationships. Mechanism and Machine Theory, 2022, 168, 104601.	2.7	4
2	Incline-dependent adjustments of toes in geckos inspire functional strategies for biomimetic manipulators. Bioinspiration and Biomimetics, 2022, 17, 046010.	1.5	5
3	Size, shape and orientation of macro-sized substrate protrusions affect the toe and foot adhesion of geckos. Journal of Experimental Biology, 2021, 224, .	0.8	8
4	Mechanisms for Mid-Air Reorientation Using Tail Rotation in Gliding Geckos. Integrative and Comparative Biology, 2021, 61, 478-490.	0.9	13
5	Biology Beyond the Classroom: Experiential Learning Through Authentic Research, Design, and Community Engagement. Integrative and Comparative Biology, 2021, 61, 926-933.	0.9	4
6	Eyes Toward Tomorrow Program Enhancing Collaboration, Connections, and Community Using Bioinspired Design. Integrative and Comparative Biology, 2021, 61, 1966-1980.	0.9	2
7	Acrobatic squirrels learn to leap and land on tree branches without falling. Science, 2021, 373, 697-700.	6.0	29
8	Tails stabilize landing of gliding geckos crashing head-first into tree trunks. Communications Biology, 2021, 4, 1020.	2.0	27
9	Role of multiple, adjustable toes in distributed control shown by sideways wall-running in geckos. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200123.	1.2	16
10	Insect-scale fast moving and ultrarobust soft robot. Science Robotics, 2019, 4, .	9.9	282
11	Cockroaches use diverse strategies to self-right on the ground. Journal of Experimental Biology, 2019, 222, .	0.8	21
12	Ten robotics technologies of the year. Science Robotics, 2019, 4, .	9.9	19
13	Transition by head-on collision: mechanically mediated manoeuvres in cockroaches and small robots. Journal of the Royal Society Interface, 2018, 15, 20170664.	1.5	52
14	The grand challenges of <i>Science Robotics</i>. Science Robotics, 2018, 3, .	9.9	787
15	Geckos Race Across the Waterâ€™s Surface Using Multiple Mechanisms. Current Biology, 2018, 28, 4046-4051.e2.	1.8	31
16	Mechanical principles of dynamic terrestrial self-righting using wings. Advanced Robotics, 2017, 31, 881-900.	1.1	21
17	Comparative Design, Scaling, and Control of Appendages for Inertial Reorientation. IEEE Transactions on Robotics, 2016, 32, 1380-1398.	7.3	45
18	Cockroaches traverse crevices, crawl rapidly in confined spaces, and inspire a soft, legged robot. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E950-7.	3.3	129

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19	Terradynamically streamlined shapes in animals and robots enhance traversability through densely cluttered terrain. Bioinspiration and Biomimetics, 2015, 10, 046003.	1.5	73
20	Principles of appendage design in robots and animals determining terradynamic performance on flowable ground. Bioinspiration and Biomimetics, 2015, 10, 056014.	1.5	46
21	Interdisciplinary Laboratory Course Facilitating Knowledge Integration, Mutualistic Teaming, and Original Discovery. Integrative and Comparative Biology, 2015, 55, 912-925.	0.9	22
22	Using Active Learning to Teach Concepts and Methods in Quantitative Biology. Integrative and Comparative Biology, 2015, 55, 933-948.	0.9	13
23	Sensory processing within antenna enables rapid implementation of feedback control for high-speed running maneuvers. Journal of Experimental Biology, 2015, 218, 2344-54.	0.8	20
24	Mechanical processing <i>via</i> passive dynamic properties of the cockroach antenna can facilitate control during rapid running. Journal of Experimental Biology, 2014, 217, 3333-45.	0.8	14
25	Instantaneous kinematic phase reflects neuromechanical response to lateral perturbations of running cockroaches. Biological Cybernetics, 2013, 107, 179-200.	0.6	29
26	Gecko toe and lamellar shear adhesion on macroscopic, engineered rough surfaces. Journal of Experimental Biology, 2013, 217, 283-9.	0.8	57
27	Locomotion- and mechanics-mediated tactile sensing: antenna reconfiguration simplifies control during high-speed navigation in cockroaches. Journal of Experimental Biology, 2013, 216, 4530-4541.	0.8	36
28	A nonlinear feedback controller for aerial self-righting by a tailed robot. , 2013, , .		39
29	TAIL ASSISTED DYNAMIC SELF RIGHTING. , 2012, , 611-620.		45
30	Tail-assisted pitch control in lizards, robots and dinosaurs. Nature, 2012, 481, 181-184.	13.7	306
31	Rapid Inversion: Running Animals and Robots Swing like a Pendulum under Ledges. PLoS ONE, 2012, 7, e38003.	1.1	19
32	Aerial Righting Reflexes in Flightless Animals. Integrative and Comparative Biology, 2011, 51, 937-943.	0.9	72
33	A lizard-inspired active tail enables rapid maneuvers and dynamic stabilization in a terrestrial robot. , 2011, , .		17
34	Shifts in a single muscle's control potential of body dynamics are determined by mechanical feedback. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 1606-1620.	1.8	33
35	A single muscle's multifunctional control potential of body dynamics for postural control and running. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 1592-1605.	1.8	49
36	A lizard-inspired active tail enables rapid maneuvers and dynamic stabilization in a terrestrial robot. , 2011, , .		49

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37	Insects running on elastic surfaces. Journal of Experimental Biology, 2010, 213, 1907-1920.	0.8	130
38	Templates and Anchors for Antenna-Based Wall Following in Cockroaches and Robots. IEEE Transactions on Robotics, 2008, 24, 130-143.	7.3	58
39	Active tails enhance arboreal acrobatics in geckos. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4215-4219.	3.3	199
40	A Multiaxis Force Sensor for the Study of Insect Biomechanics. Journal of Microelectromechanical Systems, 2007, 16, 709-718.	1.7	25
41	An isolated insect leg's passive recovery from dorso-ventral perturbations. Journal of Experimental Biology, 2007, 210, 3209-3217.	0.8	17
42	Investigating the Role of Orientation Angle on Gecko Setae Adhesion using a Dual-Axis Mems Force Sensor. , 2007, , .		2
43	The Dynamics of Legged Locomotion: Models, Analyses, and Challenges. SIAM Review, 2006, 48, 207-304.	4.2	600
44	Dynamics of rapid vertical climbing in cockroaches reveals a template. Journal of Experimental Biology, 2006, 209, 2990-3000.	0.8	179
45	SEE HOW THEY RUN, CRAWL, HOP, HOVER, FLY, SWIM.... Journal of Experimental Biology, 2003, 206, 4188-4189.	0.8	0
46	Quantifying Dynamic Stability and Maneuverability in Legged Locomotion. Integrative and Comparative Biology, 2002, 42, 149-157.	0.9	188
47	Evidence for van der Waals adhesion in gecko setae. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 12252-12256.	3.3	1,617
48	An Integrative Study of Insect Adhesion: Mechanics and Wet Adhesion of Pretarsal Pads in Ants. Integrative and Comparative Biology, 2002, 42, 1100-1106.	0.9	316
49	Adhesive force of a single gecko foot-hair. Nature, 2000, 405, 681-685.	13.7	2,387
50	How Animals Move: An Integrative View. Science, 2000, 288, 100-106.	6.0	1,357
51	Locomotion like a wheel?. Nature, 1993, 365, 495-495.	13.7	25
52	Integrating the Physiology, Mechanics and Behavior of Rapid Running Ghost Crabs: Slow and Steady Doesn't Always Win the Race. American Zoologist, 1992, 32, 382-395.	0.7	39
53	Consequences of a Gait Change During Locomotion in Toads (Bufo Woodhousii Fowleri). Journal of Experimental Biology, 1991, 158, 133-148.	0.8	15