Robert J Full

List of Publications by Year
in descending order

53	9,650	218677	214800
papers	citations	26 h-index	47 g-index

54	54	54	7812
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adhesive force of a single gecko foot-hair. Nature, 2000, 405, 681-685.	27.8	2,387
2	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.	7.1	1,617
3	How Animals Move: An Integrative View. Science, 2000, 288, 100-106.	12.6	1,357
4	The grand challenges of Science Robotics. Science Robotics, 2018, 3, .	17.6	787
5	The Dynamics of Legged Locomotion: Models, Analyses, and Challenges. SIAM Review, 2006, 48, 207-304.	9.5	600
6	An Integrative Study of Insect Adhesion: Mechanics and Wet Adhesion of Pretarsal Pads in Ants. Integrative and Comparative Biology, 2002, 42, 1100-1106.	2.0	316
7	Tail-assisted pitch control in lizards, robots and dinosaurs. Nature, 2012, 481, 181-184.	27.8	306
8	Insect-scale fast moving and ultrarobust soft robot. Science Robotics, 2019, 4, .	17.6	282
9	Active tails enhance arboreal acrobatics in geckos. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4215-4219.	7.1	199
10	Quantifying Dynamic Stability and Maneuverability in Legged Locomotion. Integrative and Comparative Biology, 2002, 42, 149-157.	2.0	188
11	Dynamics of rapid vertical climbing in cockroaches reveals a template. Journal of Experimental Biology, 2006, 209, 2990-3000.	1.7	179
12	Insects running on elastic surfaces. Journal of Experimental Biology, 2010, 213, 1907-1920.	1.7	130
13	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.	7.1	129
14	Terradynamically streamlined shapes in animals and robots enhance traversability through densely cluttered terrain. Bioinspiration and Biomimetics, 2015, 10, 046003.	2.9	73
15	Aerial Righting Reflexes in Flightless Animals. Integrative and Comparative Biology, 2011, 51, 937-943.	2.0	72
16	Templates and Anchors for Antenna-Based Wall Following in Cockroaches and Robots. IEEE Transactions on Robotics, 2008, 24, 130-143.	10.3	58
17	Gecko toe and lamellar shear adhesion on macroscopic, engineered rough surfaces. Journal of Experimental Biology, 2013, 217, 283-9.	1.7	57
18	Transition by head-on collision: mechanically mediated manoeuvres in cockroaches and small robots. Journal of the Royal Society Interface, 2018, 15, 20170664.	3.4	52

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19	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.	4.0	49
20	A lizard-inspired active tail enables rapid maneuvers and dynamic stabilization in a terrestrial robot. , 2011, , .		49
21	Principles of appendage design in robots and animals determining terradynamic performance on flowable ground. Bioinspiration and Biomimetics, 2015, 10, 056014.	2.9	46
22	TAIL ASSISTED DYNAMIC SELF RIGHTING. , 2012, , 611-620.		45
23	Comparative Design, Scaling, and Control of Appendages for Inertial Reorientation. IEEE Transactions on Robotics, 2016, 32, 1380-1398.	10.3	45
24	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
25	A nonlinear feedback controller for aerial self-righting by a tailed robot. , 2013, , .		39
26	Locomotion- and mechanics-mediated tactile sensing: antenna reconfiguration simplifies control during high-speed navigation in cockroaches. Journal of Experimental Biology, 2013, 216, 4530-4541.	1.7	36
27	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.	4.0	33
28	Geckos Race Across the Waterâ€™s Surface Using Multiple Mechanisms. Current Biology, 2018, 28, 4046-4051.e2.	3.9	31
29	Instantaneous kinematic phase reflects neuromechanical response to lateral perturbations of running cockroaches. Biological Cybernetics, 2013, 107, 179-200.	1.3	29
30	Acrobatic squirrels learn to leap and land on tree branches without falling. Science, 2021, 373, 697-700.	12.6	29
31	Tails stabilize landing of gliding geckos crashing head-first into tree trunks. Communications Biology, 2021, 4, 1020.	4.4	27
32	Locomotion like a wheel?. Nature, 1993, 365, 495-495.	27.8	25
33	A Multiaxis Force Sensor for the Study of Insect Biomechanics. Journal of Microelectromechanical Systems, 2007, 16, 709-718.	2.5	25
34	Interdisciplinary Laboratory Course Facilitating Knowledge Integration, Mutualistic Teaming, and Original Discovery. Integrative and Comparative Biology, 2015, 55, 912-925.	2.0	22
35	Mechanical principles of dynamic terrestrial self-righting using wings. Advanced Robotics, 2017, 31, 881-900.	1.8	21
36	Cockroaches use diverse strategies to self-right on the ground. Journal of Experimental Biology, 2019, 222, .	1.7	21

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37	Sensory processing within antenna enables rapid implementation of feedback control for high-speed running maneuvers. Journal of Experimental Biology, 2015, 218, 2344-54.	1.7	20
38	Rapid Inversion: Running Animals and Robots Swing like a Pendulum under Ledges. PLoS ONE, 2012, 7, e38003.	2.5	19
39	Ten robotics technologies of the year. Science Robotics, 2019, 4, .	17.6	19
40	An isolated insect leg's passive recovery from dorso-ventral perturbations. Journal of Experimental Biology, 2007, 210, 3209-3217.	1.7	17
41	A lizard-inspired active tail enables rapid maneuvers and dynamic stabilization in a terrestrial robot. , 2011, , .		17
42	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.	2.6	16
43	Consequences of a Gait Change During Locomotion in Toads (Bufo Woodhousii Fowleri). Journal of Experimental Biology, 1991, 158, 133-148.	1.7	15
44	Mechanical processing via passive dynamic properties of the cockroach antenna can facilitate control during rapid running. Journal of Experimental Biology, 2014, 217, 3333-45.	1.7	14
45	Using Active Learning to Teach Concepts and Methods in Quantitative Biology. Integrative and Comparative Biology, 2015, 55, 933-948.	2.0	13
46	Mechanisms for Mid-Air Reorientation Using Tail Rotation in Gliding Geckos. Integrative and Comparative Biology, 2021, 61, 478-490.	2.0	13
47	Size, shape and orientation of macro-sized substrate protrusions affect the toe and foot adhesion of geckos. Journal of Experimental Biology, 2021, 224, .	1.7	8
48	Incline-dependent adjustments of toes in geckos inspire functional strategies for biomimetic manipulators. Bioinspiration and Biomimetics, 2022, 17, 046010.	2.9	5
49	Biology Beyond the Classroom: Experiential Learning Through Authentic Research, Design, and Community Engagement. Integrative and Comparative Biology, 2021, 61, 926-933.	2.0	4
50	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.	4.5	4
51	Investigating the Role of Orientation Angle on Gecko Setae Adhesion using a Dual-Axis Mems Force Sensor. , 2007, , .		2
52	Eyes Toward Tomorrow Program Enhancing Collaboration, Connections, and Community Using Bioinspired Design. Integrative and Comparative Biology, 2021, 61, 1966-1980.	2.0	2
53	SEE HOW THEY RUN, CRAWL, HOP, HOVER, FLY, SWIM.... Journal of Experimental Biology, 2003, 206, 4188-4189.	1.7	0