

Robert J Full

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

9,650
citations

218677
26
h-index

214800
47
g-index

54
all docs

54
docs citations

54
times ranked

7812
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.	4.5	4
2	Incline-dependent adjustments of toes in geckos inspire functional strategies for biomimetic manipulators. Bioinspiration and Biomimetics, 2022, 17, 046010.	2.9	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, .	1.7	8
4	Mechanisms for Mid-Air Reorientation Using Tail Rotation in Gliding Geckos. Integrative and Comparative Biology, 2021, 61, 478-490.	2.0	13
5	Biology Beyond the Classroom: Experiential Learning Through Authentic Research, Design, and Community Engagement. Integrative and Comparative Biology, 2021, 61, 926-933.	2.0	4
6	Eyes Toward Tomorrow Program Enhancing Collaboration, Connections, and Community Using Bioinspired Design. Integrative and Comparative Biology, 2021, 61, 1966-1980.	2.0	2
7	Acrobatic squirrels learn to leap and land on tree branches without falling. Science, 2021, 373, 697-700.	12.6	29
8	Tails stabilize landing of gliding geckos crashing head-first into tree trunks. Communications Biology, 2021, 4, 1020.	4.4	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.	2.6	16
10	Insect-scale fast moving and ultrarobust soft robot. Science Robotics, 2019, 4, .	17.6	282
11	Cockroaches use diverse strategies to self-right on the ground. Journal of Experimental Biology, 2019, 222, .	1.7	21
12	Ten robotics technologies of the year. Science Robotics, 2019, 4, .	17.6	19
13	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
14	The grand challenges of Science Robotics. Science Robotics, 2018, 3, .	17.6	787
15	Geckos Race Across the Water's Surface Using Multiple Mechanisms. Current Biology, 2018, 28, 4046-4051.e2.	3.9	31
16	Mechanical principles of dynamic terrestrial self-righting using wings. Advanced Robotics, 2017, 31, 881-900.	1.8	21
17	Comparative Design, Scaling, and Control of Appendages for Inertial Reorientation. IEEE Transactions on Robotics, 2016, 32, 1380-1398.	10.3	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.	7.1	129

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19	Terradynamically streamlined shapes in animals and robots enhance traversability through densely cluttered terrain. <i>Bioinspiration and Biomimetics</i> , 2015, 10, 046003.	2.9	73
20	Principles of appendage design in robots and animals determining terradynamic performance on flowable ground. <i>Bioinspiration and Biomimetics</i> , 2015, 10, 056014.	2.9	46
21	Interdisciplinary Laboratory Course Facilitating Knowledge Integration, Mutualistic Teaming, and Original Discovery. <i>Integrative and Comparative Biology</i> , 2015, 55, 912-925.	2.0	22
22	Using Active Learning to Teach Concepts and Methods in Quantitative Biology. <i>Integrative and Comparative Biology</i> , 2015, 55, 933-948.	2.0	13
23	Sensory processing within antenna enables rapid implementation of feedback control for high-speed running maneuvers. <i>Journal of Experimental Biology</i> , 2015, 218, 2344-54.	1.7	20
24	Mechanical processing <i>via</i> passive dynamic properties of the cockroach antenna can facilitate control during rapid running. <i>Journal of Experimental Biology</i> , 2014, 217, 3333-45.	1.7	14
25	Instantaneous kinematic phase reflects neuromechanical response to lateral perturbations of running cockroaches. <i>Biological Cybernetics</i> , 2013, 107, 179-200.	1.3	29
26	Gecko toe and lamellar shear adhesion on macroscopic, engineered rough surfaces. <i>Journal of Experimental Biology</i> , 2013, 217, 283-9.	1.7	57
27	Locomotion- and mechanics-mediated tactile sensing: antenna reconfiguration simplifies control during high-speed navigation in cockroaches. <i>Journal of Experimental Biology</i> , 2013, 216, 4530-4541.	1.7	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. <i>Nature</i> , 2012, 481, 181-184.	27.8	306
31	Rapid Inversion: Running Animals and Robots Swing like a Pendulum under Ledges. <i>PLoS ONE</i> , 2012, 7, e38003.	2.5	19
32	Aerial Righting Reflexes in Flightless Animals. <i>Integrative and Comparative Biology</i> , 2011, 51, 937-943.	2.0	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. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 1606-1620.	4.0	33
35	A single muscle's multifunctional control potential of body dynamics for postural control and running. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 1592-1605.	4.0	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.	1.7	130
38	Templates and Anchors for Antenna-Based Wall Following in Cockroaches and Robots. IEEE Transactions on Robotics, 2008, 24, 130-143.	10.3	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.	7.1	199
40	A Multiaxis Force Sensor for the Study of Insect Biomechanics. Journal of Microelectromechanical Systems, 2007, 16, 709-718.	2.5	25
41	An isolated insect leg's passive recovery from dorso-ventral perturbations. Journal of Experimental Biology, 2007, 210, 3209-3217.	1.7	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.	9.5	600
44	Dynamics of rapid vertical climbing in cockroaches reveals a template. Journal of Experimental Biology, 2006, 209, 2990-3000.	1.7	179
45	SEE HOW THEY RUN, CRAWL, HOP, HOVER, FLY, SWIM.... Journal of Experimental Biology, 2003, 206, 4188-4189.	1.7	0
46	Quantifying Dynamic Stability and Maneuverability in Legged Locomotion. Integrative and Comparative Biology, 2002, 42, 149-157.	2.0	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.	7.1	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.	2.0	316
49	Adhesive force of a single gecko foot-hair. Nature, 2000, 405, 681-685.	27.8	2,387
50	How Animals Move: An Integrative View. Science, 2000, 288, 100-106.	12.6	1,357
51	Locomotion like a wheel?. Nature, 1993, 365, 495-495.	27.8	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.	1.7	15