

Ronald S Fearing

List of Publications by Year in Descending Order

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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.

114
papers

9,372
citations

35
h-index

96
g-index

127
ext. papers

10,584
ext. citations

7.4
avg, IF

5.91
L-index

#	Paper	IF	Citations
114	Precision Robotic Leaping and Landing Using Stance-Phase Balance. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 3422-3429	4.2	6
113	Designing Dynamic Machines With Large-Scale Root Finding. <i>IEEE Transactions on Robotics</i> , 2020 , 36, 1135-1152	6.5	3
112	Adjustable Power Modulation For A Leg Mechanism Suitable For Running 2019 ,		1
111	Drift-free Roll and Pitch Estimation for High-acceleration Hopping 2019 ,		2
110	JumpRoACH: A Trajectory-Adjustable Integrated Jumping/Crawling Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019 , 24, 947-958	5.5	19
109	Cockroach Milli-Robot With Improved Load Capacity. <i>Journal of Mechanisms and Robotics</i> , 2019 , 11,	2.2	4
108	Insect-scale fast moving and ultrarobust soft robot. <i>Science Robotics</i> , 2019 , 4,	18.6	137
107	Transition by head-on collision: mechanically mediated manoeuvres in cockroaches and small robots. <i>Journal of the Royal Society Interface</i> , 2018 , 15,	4.1	26
106	Thin-film repulsive-force electrostatic actuators. <i>Sensors and Actuators A: Physical</i> , 2018 , 270, 252-261	3.9	10
105	Towards a Soft Fingertip with Integrated Sensing and Actuation 2018 ,		15
104	Learning Image-Conditioned Dynamics Models for Control of Underactuated Legged Millirobots 2018 ,		9
103	Precision Jumping Limits from Flight-phase Control in Salto-1P 2018 ,		9
102	Steering of an Underactuated Legged Robot through Terrain Contact with an Active Tail 2018 ,		4
101	Self-Engaging Spined Gripper with Dynamic Penetration and Release for Steep Jumps 2018 ,		2
100	Bidirectional, Thin-Film Repulsive-/Attractive-Force Electrostatic Actuators for a Crawling Milli-Robot 2018 ,		4
99	Design Exploration and Kinematic Tuning of a Power Modulating Jumping Monopod. <i>Journal of Mechanisms and Robotics</i> , 2017 , 9,	2.2	34
98	Finding Only Finite Roots to Large Kinematic Synthesis Systems. <i>Journal of Mechanisms and Robotics</i> , 2017 , 9,	2.2	15

97	Mechanical principles of dynamic terrestrial self-righting using wings. <i>Advanced Robotics</i> , 2017 , 31, 881-900	16
96	Wearable Devices: Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring (Adv. Mater. 39/2017). <i>Advanced Materials</i> , 2017 , 29,	24 2
95	Pop-up mars rover with textile-enhanced rigid-flex PCB body 2017 ,	17
94	Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring. <i>Advanced Materials</i> , 2017 , 29, 1701985	24 254
93	Cooperative inchworm localization with a low cost team 2017 ,	2
92	A Study on Finding Finite Roots for Kinematic Synthesis 2017 ,	1
91	Dynamic terrestrial self-righting with a minimal tail 2017 ,	6
90	Repetitive extreme-acceleration (14-g) spatial jumping with Salto-1P 2017 ,	28
89	Robotic folding of 2D and 3D structures from a ribbon 2016 ,	2
88	Step climbing cooperation primitives for legged robots with a reversible connection 2016 ,	6
87	An integrated jumping-crawling robot using height-adjustable jumping module 2016 ,	35
86	Modeling and control of an ornithopter for diving 2016 ,	4
85	Cockroach-inspired winged robot reveals principles of ground-based dynamic self-righting 2016 ,	7
84	A power modulating leg mechanism for monopedal hopping 2016 ,	12
83	Running beyond the bio-inspired regime 2015 ,	20
82	Dynamic legged locomotion for palm-size robots 2015 ,	1
81	Anisotropic collapsible leg spines for increased millirobot traction 2015 ,	11
80	VLR: Cockroach millirobot with load decoupling structure 2015 ,	2

79	Controlled In-Plane Locomotion of a Hexapod Using a Single Actuator. <i>IEEE Transactions on Robotics</i> , 2015 , 31, 157-167	6.5	30
78	Coordinated launching of an ornithopter with a hexapedal robot 2015 ,		6
77	Force sensing shell using a planar sensor for miniature legged robots 2015 ,		3
76	Terradynamically streamlined shapes in animals and robots enhance traversability through densely cluttered terrain. <i>Bioinspiration and Biomimetics</i> , 2015 , 10, 046003	2.6	53
75	Integrated Manufacture of Exoskeletons and Sensing Structures for Folded Millirobots. <i>Journal of Mechanisms and Robotics</i> , 2015 , 7,	2.2	31
74	Photoactuators and motors based on carbon nanotubes with selective chirality distributions. <i>Nature Communications</i> , 2014 , 5, 2983	17.4	223
73	Detection of slippery terrain with a heterogeneous team of legged robots 2014 ,		5
72	1STAR, A one-actuator steerable robot 2014 ,		4
71	Angled microfiber arrays as low-modulus, low Poisson's ratio compliant substrates. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 065016	2	1
70	Simulation of synthetic gecko arrays shearing on rough surfaces. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140021	4.1	14
69	Gecko toe and lamellar shear adhesion on macroscopic, engineered rough surfaces. <i>Journal of Experimental Biology</i> , 2014 , 217, 283-9	3	44
68	Roll oscillation modulated turning in dynamic millirobots 2014 ,		9
67	Comparison of ornithopter wind tunnel force measurements with free flight 2014 ,		11
66	Planning with the STAR(s) 2014 ,		16
65	Controllable Particle Adhesion with a Magnetically Actuated Synthetic Gecko Adhesive. <i>Advanced Functional Materials</i> , 2013 , 23, 3256-3261	15.6	65
64	STAR, a sprawl tuned autonomous robot 2013 ,		26
63	Dry self-cleaning properties of hard and soft fibrillar structures. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 6081-8	9.5	35
62	Friction characteristics of polymeric nanofiber arrays against substrates with tailored geometry. <i>Langmuir</i> , 2013 , 29, 8395-401	4	8

61	Ground fluidization promotes rapid running of a lightweight robot. <i>International Journal of Robotics Research</i> , 2013 , 32, 859-869	5.7	19
60	Cost of locomotion of a dynamic hexapedal robot 2013 ,		6
59	Animal-inspired design and aerodynamic stabilization of a hexapedal millirobot 2013 ,		47
58	Automatic identification of dynamic piecewise affine models for a running robot 2013 ,		8
57	Wet self-cleaning of superhydrophobic microfiber adhesives formed from high density polyethylene. <i>Langmuir</i> , 2012 , 28, 15372-7	4	38
56	Role of counter-substrate surface energy in macroscale friction of nanofiber arrays. <i>Langmuir</i> , 2012 , 28, 2922-7	4	12
55	Maneuverability and mobility in palm-sized legged robots 2012 ,		2
54	Rapid inversion: running animals and robots swing like a pendulum under ledges. <i>PLoS ONE</i> , 2012 , 7, e38003	3.7	18
53	Rapid-manufacturable hair sensor array for legged millirobots 2012 ,		2
52	Performance analysis and terrain classification for a legged robot over rough terrain 2012 ,		22
51	Compliance-based dynamic steering for hexapods 2012 ,		9
50	Dynamic climbing of near-vertical smooth surfaces 2012 ,		22
49	AUTONOMOUS NAVIGATION OF A 5 GRAM CRAWLING MILLIROBOT IN A COMPLEX ENVIRONMENT 2012 , 121-128		4
48	Carbon nanotube active-matrix backplanes for conformal electronics and sensors. <i>Nano Letters</i> , 2011 , 11, 5408-13	11.5	245
47	Shear adhesion strength of thermoplastic gecko-inspired synthetic adhesive exceeds material limits. <i>Langmuir</i> , 2011 , 27, 11278-81	4	45
46	Effect of fiber geometry on macroscale friction of ordered low-density polyethylene nanofiber arrays. <i>Langmuir</i> , 2011 , 27, 11008-16	4	28
45	MEDIC: A legged millirobot utilizing novel obstacle traversal 2011 ,		20
44	Optically- and thermally-responsive programmable materials based on carbon nanotube-hydrogel polymer composites. <i>Nano Letters</i> , 2011 , 11, 3239-44	11.5	411

43	Flight control for target seeking by 13 gram ornithopter 2011 ,		33
42	Experimental dynamics of wing assisted running for a bipedal ornithopter 2011 ,		24
41	Nanowire active-matrix circuitry for low-voltage macroscale artificial skin. <i>Nature Materials</i> , 2010 , 9, 821-827	10	13
40	Systematic study of the performance of small robots on controlled laboratory substrates 2010 ,		12
39	Flight forces and altitude regulation of 12 gram I-Bird 2010 ,		12
38	Optical flow on a flapping wing robot 2009 ,		11
37	Wet and Dry Adhesion Properties of Self-Selective Nanowire Connectors. <i>Advanced Functional Materials</i> , 2009 , 19, 3098-3102	15.6	29
36	Gecko-inspired combined lamellar and nanofibrillar array for adhesion on nonplanar surface. <i>Langmuir</i> , 2009 , 25, 12449-53	4	78
35	Efficient resonant drive of flapping-wing robots 2009 ,		55
34	Dynamometer Power Output Measurements of Miniature Piezoelectric Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , 2009 , 14, 1-10	5.5	18
33	Hybrid core-shell nanowire forests as self-selective chemical connectors. <i>Nano Letters</i> , 2009 , 9, 2054-8	11.5	56
32	Challenges for 100 Milligram Flapping Flight 2009 , 219-229		2
31	Contact self-cleaning of synthetic gecko adhesive from polymer microfibers. <i>Langmuir</i> , 2008 , 24, 10587-91	9	109
30	Sliding-induced adhesion of stiff polymer microfibre arrays. I. Macroscale behaviour. <i>Journal of the Royal Society Interface</i> , 2008 , 5, 835-44	4.1	113
29	Sliding-induced adhesion of stiff polymer microfibre arrays. II. Microscale behaviour. <i>Journal of the Royal Society Interface</i> , 2008 , 5, 845-53	4.1	74
28	Fast scale prototyping for folded millirobots 2008 ,		26
27	Reducing Contact Resistance Using Compliant Nickel Nanowire Arrays. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2008 , 31, 859-868		12
26	RoACH: An autonomous 2.4g crawling hexapod robot 2008 ,		116

25	Mechanics of a Novel Shear-activated Microfiber Array Adhesive. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1086, 1		1
24	Fast scale prototyping for folded millirobots 2008 ,		20
23	Macromodel for the mechanics of gecko hair adhesion 2008 ,		2
22	Adhesion of an elastic plate to a sphere. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008 , 464, 1309-1317	2.4	27
21	Directional adhesion of gecko-inspired angled microfiber arrays. <i>Applied Physics Letters</i> , 2008 , 93, 191910	9.4	131
20	Rapidly Prototyped Orthotweezers for Automated Microassembly 2007 ,		14
19	Towards friction and adhesion from high modulus microfiber arrays. <i>Journal of Adhesion Science and Technology</i> , 2007 , 21, 1297-1315	2	43
18	Effective elastic modulus of isolated gecko setal arrays. <i>Journal of Experimental Biology</i> , 2006 , 209, 3558-368		254
17	Challenges for Effective Millirobots 2006 ,		6
16	Foot design and integration for bioinspired climbing robots 2006 , 6230, 426		6
15	Attachment of fiber array adhesive through side contact. <i>Journal of Applied Physics</i> , 2005 , 98, 103521	2.5	64
14	Optimal energy density piezoelectric bending actuators. <i>Sensors and Actuators A: Physical</i> , 2005 , 119, 476-488	3.9	177
13	Robotics in scansorial environments 2005 ,		65
12	Efficient charge recovery method for driving piezoelectric actuators with quasi-square waves. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2003 , 50, 237-44	3.2	79
11	Synthetic gecko foot-hair micro/nano-structures as dry adhesives. <i>Journal of Adhesion Science and Technology</i> , 2003 , 17, 1055-1073	2	412
10	Evidence for van der Waals adhesion in gecko setae. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 12252-6	11.5	1371
9	Adhesive force of a single gecko foot-hair. <i>Nature</i> , 2000 , 405, 681-5	50.4	2035
8	Tracking fast inverted trajectories of the underactuated Acrobot. <i>IEEE Transactions on Automation Science and Engineering</i> , 1999 , 15, 740-750		96

7	Applications of micromechatronics in minimally invasive surgery. <i>IEEE/ASME Transactions on Mechatronics</i> , 1998 , 3, 34-42	5.5	80
6	Sliding and hopping gaits for the underactuated Acrobot. <i>IEEE Transactions on Automation Science and Engineering</i> , 1998 , 14, 629-634		62
5	Alignment of microparts using force-controlled pushing 1998 ,		27
4	Micro-Actuators for Micro-Robots: Electric and Magnetic. <i>Handbook of Sensors and Actuators</i> , 1998 , 6, 161-179		2
3	Microfabricated hinges. <i>Sensors and Actuators A: Physical</i> , 1992 , 33, 249-256	3.9	242
2	Basic Solid Mechanics for Tactile Sensing. <i>International Journal of Robotics Research</i> , 1985 , 4, 40-54	5.7	88
1	Flocking: Don't need no stinkin' robot recognition		2