Jonathan M Rossiter

List of Publications by Year
in descending order

96 papers	2,216 citations	279778 23 h-index	265191 42 g-index
96 all docs	96 docs citations	96 times ranked	2297 citing authors

#	Article	IF	Citations
1	Toward Stimuli-Responsive Soft Robots with 3D Printed Self-Healing Konjac Glucomannan Gels. 3D Printing and Additive Manufacturing, 2022, 9, 425-434.	2.9	6
2	A Contact-Triggered Adaptive Soft Suction Cup. IEEE Robotics and Automation Letters, 2022, 7, 3600-3607.	5.1	10
3	Liquid-amplified zipping actuators for micro-air vehicles with transmission-free flapping. Science Robotics, 2022, 7, eabi8189.	17.6	22
4	Design and Characterisation of a Muscle-Mimetic Dielectrophoretic Ratcheting Actuator. IEEE Robotics and Automation Letters, 2022, 7, 3938-3944.	5.1	2
5	A calming hug: Design and validation of a tactile aid to ease anxiety. PLoS ONE, 2022, 17, e0259838.	2.5	15
6	Variable Stiffness Electroadhesion and Compliant Electroadhesive Grippers. Soft Robotics, 2022, 9, 1074-1082.	8.0	13
7	A Sea-Anemone-Inspired, Multifunctional, Bistable Gripper. Soft Robotics, 2022, 9, 1040-1051.	8.0	7
8	Design exploration of electro-pneumatic pumps (EPPs) to obtain high pressure and air flow rate improvement. , 2022, , .		2
9	ReRobot: Recycled Materials for Trustworthy Soft Robots. , 2022, , .		2
10	Towards a Soft Exosuit for Hypogravity Adaptation: Design and Control of Lightweight Bubble Artificial Muscles. , 2022, , .		1
11	Electro-Ribbon Muscles for Biomimetic Wing Flapping. , 2022, , .		1
12	Stiffness Graded Electroactive Artificial Muscle. Advanced Functional Materials, 2022, 32, .	14.9	3
13	Characteristic Analysis and Design Optimization of Bubble Artificial Muscles. Soft Robotics, 2021, 8, 186-199.	8.0	35
14	A multizone cerebellar chip for bioinspired adaptive robot control and sensorimotor processing. Journal of the Royal Society Interface, 2021, 18, 20200750.	3.4	3
15	Electro-pneumatic pumps for soft robotics. Science Robotics, 2021, 6, .	17.6	72
16	Neural Networks Predicting Microbial Fuel Cells Output for Soft Robotics Applications. Frontiers in Robotics and AI, 2021, 8, 633414.	3.2	15
17	Liquid Metal Logic for Soft Robotics. IEEE Robotics and Automation Letters, 2021, 6, 4095-4102.	5.1	6
18	An all soft, electro-pneumatic controller for soft robots. , 2021, , .		2

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19	B:Ionic Glove: A Soft Smart Wearable Sensory Feedback Device for Upper Limb Robotic Prostheses. IEEE Robotics and Automation Letters, 2021, 6, 3311-3316.	5.1	24
20	Modular simulation framework for Electro-ribbon Actuators. , 2021, , .		0
21	FleXert: A Soft, Actuatable Multiwell Plate Insert for Cell Culture under Stretch. ACS Biomaterials Science and Engineering, 2021, 7, 2225-2245.	5.2	7
22	FeelMusic: Enriching Our Emotive Experience of Music through Audio-Tactile Mappings. Multimodal Technologies and Interaction, 2021, 5, 29.	2.5	9
23	Soft robotics: the route to true robotic organisms. Artificial Life and Robotics, 2021, 26, 269-274.	1.2	6
24	Planning for a Tight Squeeze: Navigation of Morphing Soft Robots in Congested Environments. IEEE Robotics and Automation Letters, 2021, 6, 4752-4757.	5.1	7
25	An Assistive Coughing Device for Post-Laryngectomy Patients. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 838-846.	3.2	0
26	Electro-lattice actuator: a compliant high-contractile active lattice structure. Smart Materials and Structures, 2021, 30, 125034.	3.5	2
27	All-Soft Skin-Like Structures for Robotic Locomotion and Transportation. Soft Robotics, 2020, 7, 309-320.	8.0	20
28	Electroadhesion Technologies for Robotics: A Comprehensive Review. IEEE Transactions on Robotics, 2020, 36, 313-327.	10.3	68
29	Lighting up soft robotics. Nature Materials, 2020, 19, 134-135.	27.5	5
30	Twisted Rubber Variable-Stiffness Artificial Muscles. Soft Robotics, 2020, 7, 386-395.	8.0	25
31	Characterisation of Self-locking High-contraction Electro-ribbon Actuators. , 2020, , .		7
32	Robotic Jellyfish Actuated by Soft FinRay Effect Structured Tentacles. , 2020, , .		4
33	Spinning artificial spiderwebs. Science Robotics, 2020, 5, .	17.6	3
34	Closed-Loop Control of Electro-Ribbon Actuators. Frontiers in Robotics and AI, 2020, 7, 557624.	3.2	7
35	Self-Sensing Electro-Ribbon Actuators. IEEE Robotics and Automation Letters, 2020, 5, 3931-3936.	5.1	13
36	NeatSkin: A Discrete Impedance Tomography Skin Sensor. , 2020, , .		5

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37	Stretchable bifilar coils for soft adhesion and sensing. Materials and Design, 2020, 190, 108545.	7.0	7
38	Towards Adaptive Prosthetic Sockets using 3D-printed Variable-stiffness Shape-memory Structures. , 2019, , .		6
39	Electroactive Textile Actuators for Breathability Control and Thermal Regulation Devices. Polymers, 2019, 11, 1199.	4.5	11
40	Quantifying Dynamic Shapes in Soft Morphologies. Soft Robotics, 2019, 6, 733-744.	8.0	9
41	Sensing Through the Body - Non-Contact Object Localisation Using Morphological Computation. , 2019, , .		6
42	Skinflow: A soft robotic skin based on fluidic transmission. , 2019, , .		17
43	RUBIC: An Untethered Soft Robot With Discrete Path Following. Frontiers in Robotics and AI, 2019, 6, 52.	3.2	13
44	Tiled Auxetic Cylinders for Soft Robots. , 2019, , .		11
45	Driving Soft Robots with Low-Boiling Point Fluids. , 2019, , .		14
46	A Reconfigurable Crawling Robot Driven by Electroactive Artificial Muscle. , 2019, , .		11
47	A soft matter computer for soft robots. Science Robotics, 2019, 4, .	17.6	59
48	Soft-smart robotic end effectors with sensing, actuation, and gripping capabilities. Smart Materials and Structures, 2019, 28, 055034.	3.5	41
49	Pellicular Morphing Surfaces for Soft Robots. IEEE Robotics and Automation Letters, 2019, 4, 2304-2309.	5.1	3
50	Magnetic Augmented Self-sensing Flexible Electroadhesive Grippers. IEEE Robotics and Automation Letters, 2019, 4, 2364-2369.	5.1	7
51	Stretchable Piezoelectric Sensing Systems for Selfâ€Powered and Wireless Health Monitoring. Advanced Materials Technologies, 2019, 4, 1900100.	5.8	96
52	A Wearable Skin-Stretching Tactile Interface for Humanâ€“Robot and Humanâ€“Human Communication. IEEE Robotics and Automation Letters, 2019, 4, 1641-1646.	5.1	17
53	Characterization and Lubrication of Tube-Guided Shape-Memory Alloy Actuators for Smart Textiles. Robotics, 2019, 8, 94.	3.5	5
54	Thermoplastic electroactive gels for 3D-printable artificial muscles. Smart Materials and Structures, 2019, 28, 085001.	3.5	19

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55	Laserâ€Scribed Graphene Oxide Electrodes for Soft Electroactive Devices. Advanced Materials Technologies, 2019, 4, 1800232.	5.8	12
56	Shaping Behavior With Adaptive Morphology. IEEE Robotics and Automation Letters, 2018, 3, 2056-2062.	5.1	13
57	The TacTip Family: Soft Optical Tactile Sensors with 3D-Printed Biomimetic Morphologies. Soft Robotics, 2018, 5, 216-227.	8.0	307
58	3D-Printed Ready-To-Use Variable-Stiffness Structures. IEEE Robotics and Automation Letters, 2018, 3, 2402-2407.	5.1	27
59	Proprioceptive Flexible Fluidic Actuators Using Conductive Working Fluids. Soft Robotics, 2018, 5, 175-189.	8.0	66
60	EuMoBot: replicating euglenoid movement in a soft robot. Journal of the Royal Society Interface, 2018, 15, 20180301.	3.4	21
61	Electro-ribbon actuators and electro-origami robots. Science Robotics, 2018, 3, .	17.6	110
62	Bodily Aware Soft Robots: Integration of Proprioceptive and Exteroceptive Sensors. , 2018, , .		50
63	Kirigami stretchable strain sensors with enhanced piezoelectricity induced by topological electrodes. Applied Physics Letters, 2018, 112, .	3.3	58
64	Easy Undressing with Soft Robotics. Lecture Notes in Computer Science, 2018, , 79-90.	1.3	6
65	A soft and shape-adaptive electroadhesive composite gripper with proprioceptive and exteroceptive capabilities. Materials and Design, 2018, 156, 586-587.	7.0	44
66	Touch and see: Physical interactions stimulating patterns in artificial cephalopod skin. , 2018, , .		2
67	Multi-directional crawling robot with soft actuators and electroadhesive grippers. , 2018, , .		18
68	MultiTip: A multimodal mechano-thermal soft fingertip. , 2018, , .		6
69	Soft pneumatic grippers embedded with stretchable electroadhesion. Smart Materials and Structures, 2018, 27, 055006.	3.5	108
70	High strength bubble artificial muscles for walking assistance. , 2018, , .		14
71	VAM: Hypocycloid Mechanism for Efficient Bioinspired Robotic Gaits. IEEE Robotics and Automation Letters, 2017, 2, 1055-1061.	5.1	5
72	Euglenoid-Inspired Giant Shape Change for Highly Deformable Soft Robots. IEEE Robotics and Automation Letters, 2017, 2, 2302-2307.	5.1	39

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73	Light-Triggered Soft Artificial Muscles:ÂMolecular-Level Amplification of Actuation Control Signals. Scientific Reports, 2017, 7, 9197.	3.3	41
74	Cerebellar-inspired algorithm for adaptive control of nonlinear dielectric elastomer-based artificial muscle. Journal of the Royal Society Interface, 2016, 13, 20160547.	3.4	26
75	Toward Energetically Autonomous Foraging Soft Robots. Soft Robotics, 2016, 3, 186-197.	8.0	18
76	Modelling the effect of actuator-like behavior in dielectric elastomer generators. Applied Physics Letters, 2015, 107, .	3.3	13
77	Fade to Green: A Biodegradable Stack of Microbial Fuel Cells. ChemSusChem, 2015, 8, 2705-2712.	6.8	25
78	Biohybrid Control of General Linear Systems Using the Adaptive Filter Model of Cerebellum. Frontiers in Neurorobotics, 2015, 9, 5.	2.8	11
79	Hiding the squid: patterns in artificial cephalopod skin. Journal of the Royal Society Interface, 2015, 12, 20150281.	3.4	9
80	An Energetically-Autonomous Robotic Tadpole with Single Membrane Stomach and Tail. Lecture Notes in Computer Science, 2015, , 366-378.	1.3	4
81	The Tickler. , 2015, , .		39
82	Modelling and Analysis of pH Responsive Hydrogels for the Development of Biomimetic Photo-Actuating Structures. Materials Research Society Symposia Proceedings, 2015, 1718, 65-70.	0.1	2
83	Urine-activated origami microbial fuel cells to signal proof of life. Journal of Materials Chemistry A, 2015, 3, 7058-7065.	10.3	59
84	Conceptual spaces and language games for an artificial fingertip. , 2014, , .		0
85	Seeing by Touch: Evaluation of a Soft Biologically-Inspired Artificial Fingertip in Real-Time Active Touch. Sensors, 2014, 14, 2561-2577.	3.8	36
86	Dual-mode compliant optical tactile sensor. , 2013, , .		14
87	Contact sensing in a bio-inspired whisker driven by electroactive polymer artificial muscles. , 2013, , .		7
88	Harnessing electromechanical membrane wrinkling for actuation. Applied Physics Letters, 2012, 101, .	3.3	14
89	TACTIP — Tactile fingertip device, challenges in reduction of size to ready for robot hand integration. , 2012, , .		28
90	Biomimetic chromatophores for camouflage and soft active surfaces. Bioinspiration and Biomimetics, 2012, 7, 036009.	2.9	49

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91	Smart Radially Folding Structures. IEEE/ASME Transactions on Mechatronics, 2012, 17, 968-975.	5.8	35
92	McKibben artificial muscle using shape-memory polymer. Sensors and Actuators A: Physical, 2010, 164, 116-124.	4.1	74
93	Tactile edge detection. , 2010, , .		14
94	918 Application of Shape-memory Polymer to Position Keeping of Robot. The Proceedings of the Materials and Mechanics Conference, 2010, 2010, 548-550.	0.0	0
95	1P1-H02 Self-actuated compliant mechanism made of ionic polymer metal composite (IPMC). The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec), 2007, 2007, _1P1-H02_1-_1P1-H02_4.	0.0	0
96	An LED-based Tactile Sensor for Multi-sensing over Large Areas. , 2006, , .		11