

Eric D Diller

List of Publications by Year in descending order

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66
papers

3,665
citations

236612

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288905

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68
all docs

68
docs citations

68
times ranked

2617
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomedical Applications of Untethered Mobile Milli/Microrobots. Proceedings of the IEEE, 2015, 103, 205-224.	16.4	656
2	Millimeter-scale flexible robots with programmable three-dimensional magnetization and motions. Science Robotics, 2019, 4, .	9.9	443
3	Three-Dimensional Programmable Assembly by Untethered Magnetic Robotic Micro-Grippers. Advanced Functional Materials, 2014, 24, 4397-4404.	7.8	234
4	Independent control of multiple magnetic microrobots in three dimensions. International Journal of Robotics Research, 2013, 32, 614-631.	5.8	215
5	Continuously distributed magnetization profile for millimeter-scale elastomeric undulatory swimming. Applied Physics Letters, 2014, 104, .	1.5	174
6	Magnetic Methods in Robotics. Annual Review of Control, Robotics, and Autonomous Systems, 2020, 3, 57-90.	7.5	174
7	Control of Multiple Heterogeneous Magnetic Microrobots in Two Dimensions on Nonspecialized Surfaces. IEEE Transactions on Robotics, 2012, 28, 172-182.	7.3	148
8	Micro-Scale Mobile Robotics. Foundations and Trends in Robotics, 2011, 2, 143-259.	5.0	135
9	Six-degree-of-freedom magnetic actuation for wireless microrobotics. International Journal of Robotics Research, 2016, 35, 114-128.	5.8	114
10	Chemotactic steering of bacteria propelled microbeads. Biomedical Microdevices, 2012, 14, 1009-1017.	1.4	102
11	Two-Dimensional Autonomous Microparticle Manipulation Strategies for Magnetic Microrobots in Fluidic Environments. IEEE Transactions on Robotics, 2012, 28, 467-477.	7.3	100
12	Magnetic Actuation for Full Dexterity Microrobotic Control Using Rotating Permanent Magnets. IEEE Transactions on Robotics, 2017, 33, 1398-1409.	7.3	93
13	Assembly and disassembly of magnetic mobile micro-robots towards deterministic 2-D reconfigurable micro-systems. International Journal of Robotics Research, 2011, 30, 1667-1680.	5.8	92
14	Control methodologies for a heterogeneous group of untethered magnetic micro-robots. International Journal of Robotics Research, 2011, 30, 1553-1565.	5.8	91
15	Reliable Grasping of Three-Dimensional Untethered Mobile Magnetic Microgripper for Autonomous Pick-and-Place. IEEE Robotics and Automation Letters, 2017, 2, 835-840.	3.3	88
16	Untethered Miniature Soft Robots: Modeling and Design of a Millimeter-Scale Swimming Magnetic Sheet. Soft Robotics, 2018, 5, 761-776.	4.6	65
17	Micro-manipulation using rotational fluid flows induced by remote magnetic micro-manipulators. Journal of Applied Physics, 2012, 112, .	1.1	54
18	Remotely addressable magnetic composite micropumps. RSC Advances, 2012, 2, 3850.	1.7	48

#	ARTICLE	IF	CITATIONS
19	Programmable assembly of heterogeneous microparts by an untethered mobile capillary microgripper. Lab on A Chip, 2016, 16, 4445-4457.	3.1	45
20	Two-agent formation control of magnetic microrobots in two dimensions. Journal of Micro-Bio Robotics, 2017, 12, 9-19.	2.1	43
21	Two-dimensional magnetic micro-module reconfigurations based on inter-modular interactions. International Journal of Robotics Research, 2013, 32, 591-613.	5.8	41
22	Three-dimensional independent control of multiple magnetic microrobots via inter-agent forces. International Journal of Robotics Research, 2020, 39, 1377-1396.	5.8	36
23	Cable-Less, Magnetically Driven Forceps for Minimally Invasive Surgery. IEEE Robotics and Automation Letters, 2019, 4, 1202-1207.	3.3	34
24	Tetherless mobile micrograsping using a magnetic elastic composite material. Smart Materials and Structures, 2016, 25, 11LT03.	1.8	31
25	Five-degree-of-freedom magnetic control of micro-robots using rotating permanent magnets. , 2016, , .		27
26	Toward Gravity-Independent Climbing Using a Biologically Inspired Distributed Inward Gripping Strategy. IEEE/ASME Transactions on Mechatronics, 2015, 20, 631-640.	3.7	26
27	Novel, Flexible, and Ultrathin Pressure Feedback Sensor for Miniaturized Intraventricular Neurosurgery Robotic Tools. IEEE Transactions on Industrial Electronics, 2021, 68, 4415-4425.	5.2	26
28	Contactless Robotic Micromanipulation in Air Using a Magneto-Acoustic System. IEEE Robotics and Automation Letters, 2019, 4, 1580-1586.	3.3	25
29	Modular micro-robotic assembly through magnetic actuation and thermal bonding. Journal of Micro-Bio Robotics, 2013, 8, 121-131.	2.1	24
30	3D shape evolution of microparticles and 3D enabled applications using non-uniform UV flow lithography (NUFL). Soft Matter, 2017, 13, 7255-7263.	1.2	23
31	Parallel Pick and Place Using Two Independent Untethered Mobile Magnetic Microgrippers. , 2018, , .		21
32	Eight-Degrees-of-Freedom Remote Actuation of Small Magnetic Mechanisms. , 2018, , .		21
33	Design of Multi-Degrees-of-Freedom Microrobots Driven by Homogeneous Quasi-Static Magnetic Fields. IEEE Transactions on Robotics, 2021, 37, 246-256.	7.3	15
34	Design and Comparison of Magnetically-Actuated Dexterous Forceps Instruments for Neuroendoscopy. IEEE Transactions on Biomedical Engineering, 2021, 68, 846-856.	2.5	14
35	Path Planning and Tracking for an Underactuated Two-Microrobot System. IEEE Robotics and Automation Letters, 2021, 6, 2674-2681.	3.3	14
36	Control of multiple heterogeneous magnetic micro-robots on non-specialized surfaces. , 2011, , .		13

#	ARTICLE	IF	CITATIONS
37	Rotating magnetic micro-robots for versatile non-contact fluidic manipulation of micro-objects. , 2011, , .		12
38	Micro-scale propulsion using multiple flexible artificial flagella. , 2011, , .		12
39	Magnetic hysteresis for multi-state addressable magnetic microrobotic control. , 2012, , .		12
40	Three dimensional independent control of multiple magnetic microrobots. , 2013, , .		12
41	Millimeter-scale magnetic swimmers using elastomeric undulations. , 2015, , .		10
42	Toward a rapid and robust attachment strategy for vertical climbing. , 2010, , .		9
43	Three-dimensional robotic manipulation and transport of micro-scale objects by a magnetically driven capillary micro-gripper. , 2014, , .		9
44	Tetherless Mobile Micro-Surgical Scissors Using Magnetic Actuation. , 2019, , .		9
45	A generic label-free microfluidic microobject sorter using a magnetic elastic diverter. Biomedical Microdevices, 2017, 19, 43.	1.4	8
46	Independent control of two millimeter-scale soft-bodied magnetic robotic swimmers. , 2016, , .		7
47	Two-agent formation control of magnetic microrobots. , 2016, , .		7
48	Assembly and disassembly of magnetic mobile micro-robots towards deterministic 2-D reconfigurable micro-systems. , 2011, , .		6
49	Optimization-based formation control of underactuated magnetic microrobots via inter-agent forces. , 2017, , .		6
50	DESIGN ASPECTS OF A CLIMBING HEXAPOD. , 2009, , .		4
51	Bonding methods for modular micro-robotic assemblies. , 2013, , .		4
52	A Novel Magnetic Transmission for Powerful Miniature Surgical Robots. IEEE/ASME Transactions on Mechatronics, 2022, 27, 5541-5550.	3.7	4
53	Polymer filamentâ€‘based in situ microrobot fabrication using magnetic guidance. International Journal of Advanced Robotic Systems, 2017, 14, 172988141668270.	1.3	3
54	Independent Position Control of Two Magnetic Microrobots via Rotating Magnetic Field in Two Dimensions. , 2019, , .		3

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55	Local stimulation of osteocytes using a magnetically actuated oscillating beam. PLoS ONE, 2020, 15, e0235366.	1.1	3
56	Robust tracking of human hand postures for robot teaching. , 2011, , .		3
57	Magnetically-guided in-situ microrobot fabrication. , 2016, , .		2
58	Dry Surface Micromanipulation Using an Untethered Magnetic Microrobot. Lecture Notes in Mechanical Engineering, 2019, , 75-91.	0.3	2
59	Novel locomotion via biological inspiration. Proceedings of SPIE, 2011, , .	0.8	1
60	Addressing of Micro-robot Teams and Non-contact Micro-manipulation. Lecture Notes in Computer Science, 2014, , 28-38.	1.0	1
61	Structural optimization method towards synthesis of small scale flexure-based mobile grippers. , 2014, , .		0
62	Microrobotic simulator for assisted biological cell injection. , 2011, , .		0
63	Local stimulation of osteocytes using a magnetically actuated oscillating beam. , 2020, 15, e0235366.		0
64	Local stimulation of osteocytes using a magnetically actuated oscillating beam. , 2020, 15, e0235366.		0
65	Local stimulation of osteocytes using a magnetically actuated oscillating beam. , 2020, 15, e0235366.		0
66	Local stimulation of osteocytes using a magnetically actuated oscillating beam. , 2020, 15, e0235366.		0